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Visit to Italy

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*

Summary

The Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes, Marcos Orellana, visited Italy from 30 November to 13 December 2021. The visit focused on three key issues: contaminated sites, waste management and pesticides. The present report contains the Special Rapporteur's findings and recommendations to the Government of Italy, including the need to re-evaluate the regulation and monitoring of industrial operations to ensure the country's transformation towards a zero-pollution economy.

* The summary of the report is being circulated in all official languages. The report itself, which is annexed to the summary, is being circulated in the language of submission only.



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 Italy

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 Italy from 30 November to 13 December 2021, at the invitation of the Government. During the visit, the Special Rapporteur aimed to assess the efforts made by the Government to prevent and address the adverse impacts of toxics on human rights.
2. The visit focused on three key issues: contaminated sites; pesticides; and waste management.
3. The Special Rapporteur expresses his gratitude to the Government of Italy for the invitation to conduct the visit, its willingness to open itself to scrutiny and its excellent cooperation and efforts to ensure that he could make the most of his visit. He thanks all officials of the national and regional governments as well as the numerous members of civil society that he was able to meet with.
4. The Special Rapporteur had discussions with the Interministerial Committee for Human Rights, the Undersecretary of State of the Ministry of Foreign Affairs and International Cooperation and the Chef de Cabinet of the Ministry of Justice. He also met with officials at the Ministry of Ecological Transition, the Ministry of Health, the Ministry of Agricultural, Food and Forestry Policies, the Ministry of Economic Development, the committee on environment, territory and public works of the Chamber of Deputies and the Carabinieri for environmental protection and ecological transition.
5. The Special Rapporteur also had the honour to speak with representatives of the regional governments of Veneto, Campania and Puglia, as well as representatives of the local waste management authorities in the municipality of Rome.
6. The Special Rapporteur appreciated the opportunity to visit Porto Marghera in Venice, the red area of perfluoroalkyl and polyfluoroalkyl substances (PFAS) contamination in Veneto, the Tamburi neighbourhood next to the Ilva steel production plant in Taranto, the area known as *Terra dei Fuochi* in Campania, and the waste-to-energy facility in San Vittore, Lazio. He is grateful to the community members, officials, doctors and lawyers in those sites for the information provided.
7. The Special Rapporteur is also grateful for the rich exchanges he had with representatives of the vibrant and active Italian civil society.
8. The Special Rapporteur looks forward to continued engagement and collaboration in the years ahead with the Government of Italy. He will remain available to the Government and civil society stakeholders for any technical assistance he may be able to provide in his capacity as Special Rapporteur.

II. General background and legal context

9. Italy is a member of the Group of Seven (G7), and it has one of the world's most powerful economies. Its strengths are its metallurgical and engineering industries. The chemical sector is also flourishing in Italy. These sectors use large amounts of toxic substances.

10. Following the crisis due to the coronavirus disease (COVID-19) pandemic, Italy set up a National Recovery and Resilience Plan, in the framework of the NextGenerationEU programme, in order to stimulate growth and employment and help support a faster transition towards a greener and more digitized economy. The Plan is supported by €68.9 billion in grants and €122.6 billion in loans, of which 37.5 per cent will be allocated to climate objectives and 25.1 per cent to support the digital transition. The reforms are to be implemented by August 2026.¹

11. The Special Rapporteur welcomes the adoption of Law 68 of 2015, which introduced crimes against the environment, including the crimes of environmental pollution and environmental disaster, into the Italian Criminal Code. Prior to the adoption of Law 68, environmental offences were regarded as misdemeanours in Italy. This created a low-risk, high-reward environment for criminal activity, which fuelled, inter alia, the illegal dumping and burning of hazardous wastes. The law not only established new environmental crimes, it also enhanced the range of tools available to fight them, including an extended statute of limitations (prescription) for offences, pretrial detention and wiretapping. These changes have been key for the effective investigation and prosecution of highly polluting facilities and “ecomafia” (syndicates that carry out environmental crimes).

12. In 2021 legislative changes were approved to speed up judicial processes. While more agile procedures and speedy trials are worthwhile objectives, the Special Rapporteur is concerned about shorter prescription times for environmental crimes, since their complexity often means that substantial time is required to complete adequate investigations. The Special Rapporteur is concerned that the application of accelerated prescription times could lead to impunity for environmental crimes.

13. The Special Rapporteur also welcomes the fact that Italy has specialized security forces to investigate environmental crimes: the Carabinieri for the protection of the environment and ecological transition.

14. At the same time, the Special Rapporteur expresses concern at a persistent pattern of inadequate application of and compliance with European Union environmental laws in Italy. In 2020, the European Union initiated 8 new cases against Italy for environmental infringements, while 21 environmental cases remained open and 38 new complaints were received about alleged or potential environmental breaches of European Union law.²

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

15. Italy has ratified or acceded to eight United Nations human rights treaties³ and therefore has numerous obligations in relation to the impacts on human rights of hazardous substances and wastes. Under these treaties, Italy has the obligation to protect, respect and fulfil the human rights to life, health, personal integrity, safe food and water, adequate housing, safe and healthy working conditions, and a clean, healthy and sustainable environment, among others. Italy also has obligations regarding the rights to access to information, participation in decision-making and access to justice and remedies in environmental matters.

16. In addition, Italy has ratified the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade and the Minamata Convention on Mercury.

¹ See OECD, “Italy Economic Snapshot”. See also https://ec.europa.eu/info/business-economy-euro/recovery-coronavirus/recovery-and-resilience-facility/italys-recovery-and-resilience-plan_en; and https://europa.eu/next-generation-eu/index_en.

² See https://ec.europa.eu/info/law/law-making-process/applying-eu-law/infringement-procedure/2020-annual-report-monitoring-application-eu-law/italy_en.

³ See https://tbinternet.ohchr.org/_layouts/15/TreatyBodyExternal/Treaty.aspx?CountryID=85&Lang=EN.

17. Italy has signed the Stockholm Convention on Persistent Organic Pollutants but has not ratified it.

18. Together, the rights and obligations set out in these international instruments create a duty for Italy to prevent exposure to hazardous substances and wastes. The only way to protect against the violation of the human rights Italy has committed to uphold is to prevent exposure.⁴ This is a fundamental obligation that rests with the State.⁵ However, businesses too have critical responsibilities to prevent exposure.⁶

IV. Contaminated sites

19. Contaminated sites pose very serious human rights concerns for the communities that live in their vicinity and are exposed to hazardous substances. These sites are not just a legacy of past industrial development; current operations are still generating serious toxic contamination, leading to increasing illnesses and deaths among the population.

20. The Special Rapporteur welcomes the establishment and important work carried out by the National Epidemiological Study of Territories and Settlements Exposed to Pollution Risk, also known as the SENTIERI Project, which aims to analyse the health profile of populations impacted by areas designated as “sites of national interest for remediation”. The Project seeks to pay attention to vulnerable groups and offer public health advice, and includes elements of environmental justice. The Project has shown that communities residing in close proximity to major polluted sites are generally characterized by disadvantageous and fragile socioeconomic conditions.⁷

21. The SENTIERI Project has detected an excess of malignant mesothelioma, lung, colon and gastric cancer, and of non-malignant respiratory diseases in the populations affected by national priority contaminated sites. Excess cancer incidence mainly affects people living in the vicinity of chemical and petrochemical plants, oil refineries and sites where hazardous wastes have been dumped. It was also observed that, while the presence of asbestos has not been reported in many legislative decrees designating sites of national interest for remediation, it can often be found in petrochemical plants and in the steel industry.

A. Porto Marghera

22. The Special Rapporteur is concerned about the situation in Porto Marghera, a site of national interest for remediation. It is home to a massive industrial complex that has neglected environmental protection for decades and released hazardous wastes.

23. According to information received, there have been 157 registered cases of illnesses or deaths from vinyl chloride monomer exposure among workers at Porto Marghera. The only epidemiological study carried out by the regional government showed a higher concentration of tumours in Fiesso and Vigovono, which are downwind from Porto Marghera. Furthermore, the petrochemical plant in Porto Marghera paid compensation for many cases of asbestos-related diseases and deaths linked to the plant.

24. In this connection, the SENTIERI Project in 2019 found a higher-than-average incidence of cancer in sites of national interest for remediation, such as Porto Marghera.⁸ This higher incidence mainly affected sites where chemical and petrochemical plants and oil refineries were present, and there was a practice of dumping hazardous wastes (which would include Porto Marghera).

⁴ A/74/480, para. 80.

⁵ Ibid., para. 82.

⁶ In its resolution 42/21, the Human Rights Council recognizes the duty of States to prevent unsafe occupational exposure to hazardous substances and the corresponding responsibility of businesses.

⁷ See <https://www.iss.it/documents/20126/0/20-21+web.pdf/1dcc3560-b97d-9d75-5155-e0f0a79b6f1f?t=1605519156122>.

⁸ See <https://pubmed.ncbi.nlm.nih.gov/31295974/>.

25. The Porto Marghera site of national interest for remediation includes the industrial area of Porto Marghera, as well as areas affected or potentially affected by the dumping of industrial waste, areas intended for tertiary activities, residential areas and agricultural areas.⁹ In 2013, the designation of some lands in Mestre and the surrounding area were changed from a site of national interest to a site of regional interest, reducing the area of contaminated land that could receive State funds for remediation.¹⁰ Specifically, this led to the exclusion of agricultural and commercial areas of Marghera, many urban areas of Mestre and Campalto, and the lagoon areas and port canals of Marghera. The main pollutants found here, according to a 2004 report by the regional government of Veneto and the local government of Venice, are heavy metals, cyanides, polycyclic aromatic hydrocarbons, dioxins, polychlorinated biphenyls, chlorinated solvents, chlorophenols, benzene and derivatives, pesticides and vinyl chloride monomer, with values even hundreds of times higher than the permissible limits.¹¹

26. However, the reclamation of Porto Marghera seems to be progressing extremely slowly. As of 2016, while the environmental assessment of the site had been almost completely finalized (90 per cent complete), remediation projects had barely advanced. In 2016, only 14 per cent of the affected land area had been reclaimed (10 per cent of the area had been certified as reclaimed, and 4 per cent had been reclaimed but not yet certified).¹² By 2019, this had only increased to 16 per cent. Meanwhile, as of 2019, only 11 per cent of the groundwater area has been remediated.¹³ The environmental remediation website of the Veneto Region does not include information after 2019.¹⁴

B. Veneto

27. The Special Rapporteur is seriously concerned by the magnitude of the pollution with perfluoroalkyl and polyfluoroalkyl substances – also known as “forever chemicals” because they persist and do not degrade in the environment – in certain areas of the Veneto Region. More than 300,000 people in the region have been impacted by water contamination with these chemicals, including drinking water. Residents in the area have suffered serious health problems, such as infertility, miscarriages and several forms of tumours, among others. The human dimension of the problem was illustrated by one of the mothers met during the visit, who asked, “Can you imagine what it means for a mother to realize she has poisoned her children through her own breast milk?”

28. For several decades, the chemical company Miteni produced perfluoroalkyl and polyfluoroalkyl substances in Trissino (Vicenza) and released its wastes without adequate controls, polluting surface waters, underground waters and the food chain, affecting areas of Verona, Vicenza and Padua. While those in charge of the company seemed to be aware of the waste releases and resulting pollution, they did not offer adequate protection measures to their workers, nor did they disclose information about the gravity of the pollution to them or to the public. According to information received, the contamination occurred mainly in groundwaters in an area of over 200 square kilometres. To date, no effective site remediation has been carried out in the most affected areas, even though Miteni’s production ceased in 2018 and remediation has been requested since 2016.

29. In 2013, the National Research Council of Italy informed regional authorities about the presence of perfluoroalkyl and polyfluoroalkyl substances. The regional authorities of Veneto took a series of actions, such as installing carbon filters to purify drinking water in

⁹ See <https://www.regione.veneto.it/web/ambiente-e-territorio/sin-venezia-porto-marghera>.

¹⁰ See https://www.regione.veneto.it/c/document_library/get_file?uuid=fb2332ec-35c8-47f4-a2d8-f3320685ac39&groupId=10709.

¹¹ See

http://sistemavenezia.regione.veneto.it/sites/default/files/documents/02_Siti%20Contaminati/Cont_MPlan_041222_MasterPlan.pdf.

¹² See

https://www.comune.venezia.it/sites/comune.venezia.it/files/page/files/CE394_ReSites_D.T1.1.4-5-6_Local_FUA_Assessment_Venice_IT.pdf.

¹³ See https://www.snpambiente.it/wp-content/uploads/2019/07/2019_07_02-audizione-SIN_Venezia.pdf.

¹⁴ See <http://sistemavenezia.regione.veneto.it/content/dati-ambientali-bonifiche>.

the most polluted areas and reporting the case to the prosecutor's office. However, according to testimonies received, even after the installation of activated carbon filters, perfluoroalkyl and polyfluoroalkyl substances were not fully filtered out. In time, other measures included establishing limits on the discharge of perfluoroalkyl and polyfluoroalkyl substances for companies using them, as well as investing in a system of public works to bring uncontaminated water to the area.

30. Despite taking these measures, the authorities failed to warn the residents of the affected areas and to disseminate information about the pollution and the risks to residents' health posed by perfluoroalkyl and polyfluoroalkyl substances. Furthermore, they have failed to request or conduct extensive investigations of the contaminated areas.¹⁵ Some residents learned about the toxic contamination problem in 2016–2017, when the region initiated a health surveillance plan for the population exposed to perfluoroalkyl and polyfluoroalkyl substances in the critical red area.¹⁶ However, not everybody who was exposed has been able to determine the concentration of these substances in their blood, as only residents in the critical red area born between 1951 and 2014 have access to screening. Residents in nearby ("orange" and "yellow") areas are also excluded from screenings.

31. According to testimonies received, information on contaminated food has not been made readily available to the potentially affected communities, and it appears that the authorities have not carried out further analysis of food products coming from the most polluted areas of the Veneto Region since 2017. In fact, in November 2021, the regional government rejected a proposal to extend initiatives aimed at disseminating a greater knowledge and awareness of environmental issues linked to perfluoroalkyl and polyfluoroalkyl substances, in particular with reference to their spread in food, among the public.

32. Studies carried out by civil society organizations in 2017 continued to show the presence of perfluoroalkyl and polyfluoroalkyl substances in drinking water, including in schools. The studies estimated that over 800,000 citizens were exposed to these chemicals in drinking water.¹⁷

33. According to information received, while there have been studies on maternal and neonatal effects that show an increase in pregnancy-related health problems in areas of highest perfluoroalkyl and polyfluoroalkyl substances exposure, there have been no follow-up studies to assess the health status of potentially affected individuals. There are also no routine pre-pregnancy screenings to determine exposure to perfluoroalkyl and polyfluoroalkyl substances in the affected municipalities.

34. The Special Rapporteur notes that the Vicenza tribunal has started to hear a criminal case for environmental offenses against 15 defendants involved in the Miteni operations. He also notes that a number of civil parties have joined the proceedings.

35. The Special Rapporteur would, however, like to underline that perfluoroalkyl and polyfluoroalkyl substances pollution is not restricted to the activities of the Miteni plant. It also results from the operations of small and medium-sized companies within and beyond the region that use these substances in their production processes and discharge them in contaminated water, including the textile and leather industries.

36. He also wishes to underscore that pollution related to perfluoroalkyl and polyfluoroalkyl substances is not restricted to the Veneto Region. Among other areas, perfluoroalkyl and polyfluoroalkyl substances contamination is of concern along the country's principal basin, the Po Valley. The Special Rapporteur is particularly concerned about the ongoing production of perfluoroalkyl and polyfluoroalkyl substances by the company Solvay, in Spinetta Marengo, Alessandria, in the Piedmont Region. This operation

¹⁵ See <https://pfas.land/2022/01/27/27-gennaio-2022-viviamo-in-un-mondo-perfluorurato-il-punto-di-vista-scientifico-sulla-termodistruzione-dei-pfas-due-articoli-pionieri-su-precauzione-e-incenerimento/>.

¹⁶ The regional government has divided the polluted area into three zones, highlighted with the colours red, orange and yellow, depending on the severity of exposure for the resident population.

¹⁷ See https://www.greenpeace.org/static/planet4-italy-stateless/2018/11/2af8795e-2af8795e-report_non_ce_la_beviamo.pdf.

could create an environmental disaster similar to that suffered by the affected communities in Veneto if there are accidents or releases of perfluoroalkyl and polyfluoroalkyl substances to local waters. In addition to these contaminants, the historical contamination and presence of hexavalent chromium, a heavy metal known to cause cancer, in the Solvay plant in Spinetta Marengo is of particular concern.¹⁸

C. *Terra dei Fuochi*

37. The so-called *Terra dei Fuochi* (Land of Fires) in Campania is home to some 3 million people and includes approximately 500 contaminated sites in 90 municipalities between the north-western part of Caserta and the north-eastern part of Naples. Fifty-six of these municipalities are in the province of Naples and thirty-four in the province of Caserta, with an exposed population of 2,418,440 and 621,153 inhabitants respectively.¹⁹ The name *Terra dei Fuochi* refers to the illegal dumping, burying and burning of industrial waste in the late 1990s and 2000s. Estimates from 2015 indicated that more than 10 million tons of illegal garbage have been dumped in the area over the past 20 years. It is important to note, in this context, that more than half of the land in Campania is used for agriculture, and therefore the region's economy is particularly adversely affected by the waste crisis. In the SENTIERI Project's report of 2019, *Terra dei Fuochi* (referred to in the report as the *Area Litorale Vesuviano*) was included as a site of regional interest.²⁰

38. Part of the waste was transported to Campania from the industrialized areas of the north of Italy by the so-called Ecomafia. Another part of the waste was generated by the region's local industries. In the past, the risk involved for illegal waste disposal was relatively low, since it was treated as a simple misdemeanour with low penalties. This encouraged many industries and companies in the country to associate themselves with criminal networks to lower the cost of their waste disposal. In 2013 alone, illegal disposal of garbage and toxic waste generated an estimated €16 billion for organized crime syndicates in Italy.

39. Burning of waste still continues in the Campania Region, albeit at lower levels than in the early 2000s. According to information received, waste is burned in open dumps and landfills in other regions of the country as well. In February 2020, 15 new illegal waste disposal sites were identified, leading to over €50,000 in sanctions, including fines on business owners who had previously been reported to the authorities. Throughout the month of February 2021, a joint monitoring operation carried out by the army and the police resulted in fines of over €100,000 related to the illegal disposal of waste.²¹ In April 2021, the joint monitoring operation inspected six commercial facilities, four of which were seized, including a machine shop on a 3,000 m² site with large amounts of waste. In total, about 4,000 m² were seized, and over €48,000 in penalties were imposed.²² In the first six months of 2021, there were 742 waste fires in *Terra dei Fuochi*, or an average of 4 waste fires per day.²³ On 26 and 27 January 2022, checks were carried out in the municipalities of Saviano and Castel Volturno. Out of the six areas that were inspected, two areas totalling over 3,000 m² were seized and some €80,000 in related fines were issued.²⁴ In fact, from 2014 to May 2020, the *Strade Sicure* (safe streets) programme, which was designed to patrol *Terra dei Fuochi* with the help of the military, identified over 5,000 sites of waste spills.²⁵ To make matters worse, a report of 2019 on special waste by the Italian Institute for Environmental

¹⁸ See <https://www.icij.org/investigations/pandora-papers/solvay-italy-new-jersey-chemical-plants-offshore/>.

¹⁹ See <https://www.arpacampania.it/terra-dei-fuochi>.

²⁰ See <https://epiprev.it/pubblicazioni/sentieri-studio-epidemiologico-nazionale-dei-territori-e-degli-insediamenti-esposti-a-rischio-da-inquinamento.quinto-rapporto>.

²¹ See <https://www.esercito.difesa.it/comunicazione/Pagine/Nuovi-controlli-nella-TERRA-DEI-FUOCHI-210205.aspx>.

²² See <https://www.nova.news/operazione-interforze-contro-lo-smaltimento-illecito-dei-rifiuti-a-napoli/>.

²³ Legambiente, *Ecomafia 2021: Le storie e i numeri della criminalità ambientale in Italia* (Milan, Edizioni Ambiente, 2021).

²⁴ Ministry of the Interior, Prefecture of Naples, "29 Gennaio 2022 – Esercito e Forze di Polizia per l'Action day interforze nella 'Terra dei Fuochi' nei Comuni".

²⁵ "Terra dei Fuochi, al via la campagna di Legambiente #liberidaiveleni" *La Repubblica*, 4 June 2021.

Protection and Research (ISPRA) certified that the Campania Region had not yet established a single landfill for special waste.²⁶

40. Illegal dumping and burning of hazardous wastes have generated very high levels of air, water and soil pollution in certain areas. Of the 400 hectares that have been analysed by the authorities, farming has been totally banned on 12 per cent and partially banned on another 20 per cent. However, the scope of the contamination is not fully known. Studies documented increased morbidity and mortality of people living in the polluted areas, in addition to increased vulnerability to COVID-19. Despite the Special Rapporteur's requests, the regional health authorities have not provided detailed data that could refute these findings.

41. A report of 2015 by the national health institute (Istituto Superiore di Sanità) provided an update on the epidemiological surveillance of *Terra dei Fuochi*.²⁷ The report stated that there were high levels of mortality, cancer incidence and hospitalization for several diseases linked to exposure to environmental contaminants that could be released by uncontrolled hazardous waste dumping sites and the burning of both urban and hazardous waste. It highlighted an excess of children hospitalized in their first year of life for all cancers, and children hospitalized for brain cancer both in their first year of life and in the 0–14 age class. The report also stated that the inspection of data resulted in the detection of some locations where further and urgent in-depth analyses were required. Hospitalizations showed cancers for men higher than the national average (also found in the study from 2014).²⁸

42. In 2020, the national health institute stated that the risk and health impact assessment of uncontrolled hazardous waste management represented a public health priority at the national and international levels, and that the areas in *Terra dei Fuochi* were under investigation. Later that year, the institute published a study in the *International Journal of Environmental Research and Public Health* on the health impact of the disposal and burning of waste in *Terra dei Fuochi*.²⁹ The national health institute has also developed a Geographic Information System with exposure to waste as an indicator. The study indicates that there are statistically significant excess levels of mortality for liver and bladder cancers in both genders, breast cancer in women and non-Hodgkin's lymphoma in men. Moreover, according to the study, in the municipalities most affected by illegal waste disposal there is a significantly higher rate of hospitalization for asthma than in the general population, as well as a prevalence of premature births and congenital malformations. Among recommendations, based on these findings, are environmental remediation actions and a halt to the illegal waste dumping and burning that continue to take place. A health surveillance plan for the population is also recommended. In fact, the president of the national health institute stated that the study had highlighted critical issues related to the impact of waste on health, which confirms the need to develop an epidemiological surveillance system that is integrated with environmental data in the entire area of the Campania Region and, in particular, in the provinces of Caserta and Naples.

43. In 2021, a joint report by the prosecutor's office of North Naples and the national health institute showed that in the municipalities of the provinces of Naples and Caserta affected by the phenomenon of *Terra dei Fuochi*, there is a causal relationship between the disposal and burning of waste and the occurrence of diseases such as breast cancer, asthma, leukaemia and congenital malformations.³⁰ In addition, the mapping of the territory between 2016 and 2020, commissioned by the same prosecutor's office, calculated that a third of residents in the affected municipalities lived within 100 metres of a contaminated site.³¹

²⁶ See <https://www.isprambiente.gov.it/publicazioni/rapporti/rapporto-rifiuti-speciali-edizione-2019>.

²⁷ Loredana Musmeci and others, *Mortalità, ospedalizzazione e incidenza tumorale nei Comuni della Terra dei Fuochi in Campania (relazione ai sensi della Legge 6/2014)* (Rome).

²⁸ *Ibid.*

²⁹ “*Studio sull'impatto sanitario degli smaltimenti controllati ed abusivi di rifiuti nei 38 comuni del circondario della procura della repubblica di Napoli Nord*”.

³⁰ See Legambiente, *Ecomafia 2021*. See also <https://www.lastampa.it/cronaca/2021/02/10/news/terra-dei-fuochi-report-della-procura-conferma-tumori-legati-ai-rifiuti-1.39884780/>.

³¹ *Ibid.*

44. A working group composed of several regional agencies and academia produced three reports on contaminated lands for remediation between 2015 and 2017.³² The working group was established by Law 6 of 2014,³³ with the mandate to conduct studies on lands and agricultural sites that were suspected of containing different levels of contamination. It carried out testing on samples of groundwater, and recommended that any well that showed levels of pollutants that exceeded the limits established by Ministerial Decree 185/2003 be monitored every six months. In the study of 2017, which focused on sites and agricultural lands presumed to be at a lower risk of contamination, the working group found that 67.4 per cent of land studied was suitable for agricultural production, 6.2 per cent was unsuitable and the remaining 35.2 per cent should have limitations set with regard to agricultural production. The municipalities with the highest percentage of unsuitable land were Villa Literno and Caivano, and the pollutants that were found with the highest frequency in the contaminated soils were lead, the insecticide dichloro-diphenyl-trichloroethane (DDT) or similar substances, and copper. The study concluded that the regional environmental agency for Campania and the working group would focus on investigating areas where there were high environmental pressures related to waste management activities, and as a result there were important concerns that there could be contamination of agricultural production. The agency stated that it would be intensifying investigations and sampling in these areas, but that that process would require more time. While it appears that the agency has continued to carry out monitoring and investigative activities through the end of 2020,³⁴ no additional reports have been published on the agency's site after 2017. Similarly, on the website of the regional government the latest updates related to *Terra dei Fuochi* are from 2015.³⁵

45. The Government has taken several initiatives, including legislative measures in 2014, for the assessment and remediation of contaminated sites. However, sufficient resources have not been allocated for the effective implementation of the law. Remediation activities have therefore not yet been implemented and more support from the central Government is required.

46. The reform envisaged by Law 132 of 2016, which establishes the national system for the protection of the environment, could make it possible to overcome the chronic problem of inconsistent monitoring; however, according to information from civil society, enabling decrees are needed immediately for the Law's implementation, as well as additional economic resources to strengthen public controls.³⁶ Civil society actors also noted that Law 68 of 2015 makes it possible to prosecute people responsible for crimes related to failure to clean up waste, and that there should be strengthened and standardized controls and monitoring throughout the country.

47. In July 2017, the prefect of Naples, the prefect of Caserta, and the president of the Campania Region signed a protocol³⁷ on *Terra dei Fuochi* against the burning of waste, which established collaboration across the regions, and allocated a budget of about €40 million to implement it.³⁸ The purpose of the protocol was to enhance the capacity to identify and clean up areas that had been affected by waste disposal, to transfer waste and to optimize related resources. The protocol establishes actions in three spheres: health, environmental protection and territorial management.³⁹

48. In January 2020, the regional environmental agency for Campania updated its guidelines on the removal of waste that is abandoned or illegally disposed of, including

³² Agenzia Regionale per la Protezione Ambientale della Campania, “‘Terra dei fuochi’: i risultati delle ultime analisi”.

³³ A conversion of Decree 136 of 2013.

³⁴ See <https://www.arpacampania.it/terra-dei-fuochi>.

³⁵ See http://www.agricoltura.regione.campania.it/terra_fuochi/terra_dei_fuochi.html.

³⁶ *Terra dei Fuochi, al via la campagna di Legambiente #liberidaiveleni*, *La Repubblica*, 4 June 2021.

³⁷ See <https://regione.campania.it/it/printable/24-07-2017-comunicato-n-283-firmato-protocollo-d-intesa-terra-dei-fuochi-40-milioni-di-euro-per-la-riqualificazione-ambientale>.

³⁸ See <https://www.interno.gov.it/it/notizie/terra-dei-fuochi-firmato-protocollo-riqualificazione-ambientale-napoli>.

³⁹ See <https://www.mite.gov.it/comunicati/protocollo-intesa-terra-dei-fuochi-costa-parola-chiave-e-prevenzione-incendi-e-chiarire>.

guidelines for removing waste from public areas, private areas, roads and paved areas; removing burned waste; and clean-up operations after the removal of waste.⁴⁰

49. As recently as December 2021, 30 mayors of Naples province wrote to the Prime Minister to request that the Government stop building waste plants in *Terra dei Fuochi*. The mayors asked for a moratorium on all waste plants, both private and public, that could be potentially polluting and dangerous.⁴¹ In January 2022, 52 regional mayors and 3 public entities signed a contract to provide €200 million to finance 67 projects in *Terra dei Fuochi* geared towards urban regeneration and environmental remediation.

D. Ilva Taranto

50. The Ilva plant in Puglia – Ilva Taranto – is Europe’s largest steel plant. It has the capacity to produce 10 million tons of steel annually, which corresponds to 40 per cent of Italian steel production.⁴² Most of the steel produced by the plant is transported as an input to factories in northern Italy, but a significant part is also exported.⁴³ For 60 years the plant has been emitting fine dust, dioxins and other hazardous substances that have caused an intolerable level of pollution. A survey produced in 2012 as part of judicial proceedings in the Court of Taranto produced evidence that in 2010 the Ilva plant emitted considerable quantities of dangerous substances, such as mineral dust, nitrogen dioxide, sulphur dioxide, hydrochloric acid, benzene and dioxin, into the air.⁴⁴ Steel production generally causes the pollution of air, soil and water and results in negative health impacts on local populations and workers;⁴⁵ however, due to the technologies employed at the Ilva plant, the pollution caused was more significant than for other steel plants. If the Ilva plant had used the best available technologies, the negative environmental and health impacts could have been significantly reduced.⁴⁶

51. Medical reports state that the pollution from the Ilva plant has caused a surge of cancer, respiratory illnesses and cardiovascular and neurological diseases in company workers and the residents of Taranto. An epidemiological survey, also produced as part of the judicial proceedings in the Court of Taranto dating from 2012, shows that exposure to industrial emissions from the plant caused pathologies and mortality in the area. In particular, the epidemiological survey shows that 386 people living near the plant died between 1998 and 2010 (around 30 deaths per year) because of exposure to toxic emissions such as dioxins and carbon monoxide. Moreover, the survey found that industrial emissions were responsible for 237 cases of malignant tumours (18 cases per year), 247 coronary events (19 per year) and 937 cases of respiratory diseases (74 per year) (mostly among children) – all necessitating hospitalization.⁴⁷ The regional environmental agency for Puglia released an assessment of expected health impacts caused by the Ilva plant before and after the issuance of an integrated pollution prevention and control permit (i.e., comparing 2010 data with 2016 estimates). Furthermore, the SENTIERI Project’s report of 2019 indicated an excess of non-malignant

⁴⁰ “Linee guida per la rimozione dei rifiuti abbandonati o depositati in modo incontrollato”.

⁴¹ Raffaele Sardo, “Trenta sindaci scrivono a Draghi: ‘Basta costruire impianti di rifiuti nella terra dei fuochi’”, *La Repubblica*, 24 December 2021.

⁴² See [https://www.europarl.europa.eu/RegData/etudes/IDAN/2015/563471/IPOL_IDA\(2015\)563471_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/IDAN/2015/563471/IPOL_IDA(2015)563471_EN.pdf).

⁴³ *Ibid.*

⁴⁴ In particular, according to the survey, in 2010 the plant emitted over 4,000 tons of dust, 11,000 tons of nitrogen dioxide, 11,300 tons of sulphur dioxide, 7.0 tons of hydrochloric acid, 1.3 tons of benzene, 150 kg of polycyclic aromatic hydrocarbons, 52.5 g of benzo(a)pyrene, 14.9 g of organic compounds, polychlorinated dibenzo-p-dioxins and dibenzofurans and polychlorinated biphenyls. See <https://epiprevit.serversicuro.it/materiali/2012/Taranto/Concl-perizia-chimica.pdf>.

⁴⁵ See [https://www.europarl.europa.eu/RegData/etudes/IDAN/2015/563471/IPOL_IDA\(2015\)563471_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/IDAN/2015/563471/IPOL_IDA(2015)563471_EN.pdf).

⁴⁶ See http://www.gcsm.eu/Papers/33/1.2_7.pdf.

⁴⁷ See <https://epiprevit.serversicuro.it/materiali/2012/Taranto/Concl-perizia-epidemiol.pdf>.

respiratory diseases in sites of national interest for remediation where steel industries and thermoelectric plants were present.⁴⁸

52. There are higher incidence levels of diseases among economically disadvantaged groups in Taranto and higher rates of hospitalization and mortality for certain pathologies among the inhabitants of the neighbourhoods closer to the industrial area.⁴⁹ In fact, a 2022 study indicates that the city of Taranto shows inequalities in terms of mortality in the three northern neighbourhoods closest to the industrial area (Paolo VI, Tamburi and Citta Vecchia-Borgo), with excess mortality across a period of 10 years in these areas always higher than the mortality rates in the Apulia Region. The study shows an increase in significant excess mortality from 2011 to 2020, which has progressively extended across several neighbourhoods. Compared with the Puglia Region, in the three northern neighbourhoods of the city a total of 1,020 excess deaths were recorded from 2011 to 2019.⁵⁰

53. The neighbourhoods of Tamburi and Borgo are the closest to the steel plant and have been particularly affected. In these two neighbourhoods, schools close frequently owing to poor air quality. Studies by the national health institute have documented intelligence quotient loss in children in Taranto, particularly in Tamburi and Paolo VI, linked to proximity to the plant. The national health institute studies, in addition to other studies, also document a higher incidence of hyperactivity, anxiety and depression, reduced attention span, altered social behaviour and an increase in neurodevelopmental disorders, such as attention deficit hyperactivity disorder and autism.⁵¹

54. Despite the local jobs that the plant provides, there have also been significant negative economic impacts as a result of the pollution caused by the plant. For example, regional authorities have repeatedly ordered local farmers to slaughter their cows and sheep, because the level of dioxins and polychlorinated biphenyls found in their milk or meat exceeded the permissible levels, and certain types of farming have been prohibited near the plant. The production of mussels has also been prohibited in certain areas. Moreover, the environmental pollution caused by the plant has impeded the development of the tourism industry in the region, which otherwise has favourable conditions for attracting tourists. Lastly, residents have seen the value of their properties plummet due to the pollution from the plant.

55. The plant burns coal for the production of electricity. The Special Rapporteur is also concerned by the alarming levels of carbon dioxide emissions by the Ilva plant: it ranks as the largest emitter of carbon dioxide in Italy and is among the 30 largest emitters within the entire European Union.⁵² In fact, in 2018, the plant emitted over 6 million tons of carbon dioxide and exceeded its emission allowances.⁵³

56. The Special Rapporteur notes that some remediation and monitoring activities have been carried out by the regional authorities, such as the removal of topsoil in school playgrounds in Tamburi and the monitoring of air pollution.

57. There have been court judgements at the national and European levels relating to the pollution caused by Ilva. In 2019, in the case of *Cordella and Others v. Italy*⁵⁴ the European Court of Human Rights observed that the environmental contamination caused by the Ilva plant endangered the health of local residents and concluded that Italy had failed to take all the necessary measures to effectively protect them. In May 2021, the two former owners of Ilva were convicted and sentenced to 22 and 20 years in prison, respectively, for allowing

⁴⁸ See <https://epiprev.it/pubblicazioni/sentieri-studio-epidemiologico-nazionale-dei-territori-e-degli-insediamenti-esposti-a-rischio-da-inquinamento.quinto-rapporto>.

⁴⁹ See <https://epiprev.it/pubblicazioni/sentieri-risultati>.

⁵⁰ See <https://www.sciencedirect.com/science/article/abs/pii/S0013935121013025?via%3Dihub>.

⁵¹ See <https://www.peacelink.it/tarantosociale/docs/5400.pdf>.

⁵² See

[https://www.europarl.europa.eu/RegData/etudes/IDAN/2015/563471/IPOL_IDA\(2015\)563471_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/IDAN/2015/563471/IPOL_IDA(2015)563471_EN.pdf).

⁵³ See https://www.europarl.europa.eu/doceo/document/E-9-2019-004408-ASW_EN.html.

⁵⁴ Applications Nos. 54414/13 and 54264/15, judgment, 24 January 2019.

Ilva to spew out deadly pollution. Prison terms were also handed down to 24 others, including former managers and local politicians.⁵⁵

58. The Special Rapporteur notes that the Government has adopted several legislative decrees aimed at keeping the Ilva plant in operation. In particular, legislative decree No. 98 of 9 June 2016 (the seventh decree) provided for criminal and administrative immunities for the future purchaser of the plant. Such a grant of immunity creates a perception of impunity for crimes where powerful economic interests are involved, and it is furthermore incompatible with equality under the law. ArcelorMittal purchased the plant in 2018. However, in 2019, the national ruling coalition announced it would scrap the legal guarantee of immunity for the new owners, and ArcelorMittal threatened to shut the plant down. When the guarantee was definitively revoked in late 2019, ArcelorMittal confirmed it would hand back control of the loss-making Ilva plant to the Italian authorities. In December 2020, the State joined the management of the plant: ArcelorMittal signed an agreement with Invitalia, the national agency for enterprise development controlled by the Ministry of Economy, giving the national agency an initial 50 per cent share in the plant (which would rise to 60 per cent after a further injection of funds).

59. According to information received, the Ilva Taranto plant and its production process are obsolete. Moreover, studies carried out by the regional environmental agency for Puglia have concluded that the plant's operations had unacceptable impacts on human health – even when basing its calculations on existing national air pollution standards, which are less protective than those recommended by the World Health Organization (WHO). Despite these conclusions, regional authorities in Puglia have expressed the view that they lack the authority to enact more stringent standards, although this view is inconsistent with the views and practice of other regional authorities, including in Veneto and Lazio. This issue of whether regional governments may apply more stringent pollution control standards than national ones has great implications for the ability of the residents of Taranto to enjoy their rights to life, health and a healthy environment, and it should be clarified.

E. Solvay Livorno

60. The multinational Solvay is currently one of the most important chemical groups in Italy, with seven production sites. Its Rosignano site, located in Livorno, is the largest facility for the production of sodium carbonate (soda ash) in central Italy. The Solvay plant also produces sodium bicarbonate, calcium chloride, chlorine, hydrochloric acid, chloromethanes, plastics and hydrogen peroxide.

61. According to information received, the dangers of Solvay's processes and chemical substances became apparent to the public in the mid-1980s. While the so-called white beaches in the area led the town to become a popular tourist destination starting in the 1960s, by the 1980s the public became aware that the whiteness of the sand was mainly due to the dispersion of limestone and calcium carbonate from industrial wastewater discharged into the sea, along with other chemicals.

62. An administrative procedure for decontamination began in March 2001, initiated by the Region of Tuscany, but it was never completed. In 2003 Solvay signed an agreement with local authorities to meet specific environmental targets. To comply with these agreements, Solvay obtained a non-repayable contribution of €30 million from the Ministry of the Environment. By 2007, however, the plant had largely defaulted on its commitments. In 2008, an association called Medicina Democratica filed a complaint with the Livorno public prosecutor's office against Solvay for the presence of four illegal discharge channels and the circumvention of limits on the emissions of harmful substances, including mercury at six times the legal limit. The trial ended in 2013 after the company negotiated a plea bargain according to which, among other things, it would implement a plan to clean up the plant and ensure compliance by 2015. However, Solvay continued to dispute the prosecutor's findings, stating that the levels of heavy metals had not violated the law, and it did not disclose the

⁵⁵ Luna Rossa, "Ilva di Taranto: condannati Riva e Vendola per Ambiente svenduto", *La Repubblica*, 31 May 2021.

plea-bargain sentence to investors.⁵⁶ In 2016, following a series of complaints by former employees and relatives of former employees, an investigation by the Carabinieri for the protection of the environment and ecological transition found that the company's hydraulic barrier had not been working properly for some months.

63. Furthermore, over the years there have been large-scale spillages of toxic substances on the stretch of coast facing the Solvay plant. In 2007, an electrical blackout caused ammoniacal nitrogen to be spilled, which resulted in a plant flare. Ten years later, another blackout led to another ammonia spill, which led to a mass fish death. Despite substantial public resources received by Solvay (in excess of €100 million), the environmental situation at the site has not significantly improved.

64. In 1999, the United Nations Environment Programme rated Rosignano Solvay as one of the most polluted sites in Italy, estimating a total cost of \$40 million for the necessary clean-up of the coastline.⁵⁷ The National Research Council estimates that Solvay has dumped 337 tons of mercury and other poisons in the white sand, including arsenic, cadmium, nickel, lead, zinc and dichloroethane. According to information received by the Special Rapporteur, some 500 tons of mercury have been discharged into the sea in front of the Solvay plant.

65. With regard to health risks from the environmental pollution of the Solvay plant, a team of six doctors and researchers conducted a study comparing two neighbouring areas in Tuscany – one close to the industries of Rosignano and another in Cecina, where there are no polluting activities.⁵⁸ The results showed an excess of mortality from chronic-degenerative diseases in the area with a high concentration of polluting activities. The proximity to industrial plants was deemed to represent a risk factor for those diseases. In addition, in June 2021, the Court of Livorno found that Solvay was responsible for compensating the widow and son of a former employee who had passed away from lung cancer caused by occupational exposure to asbestos in the Rosignano plant.

66. Solvay has claimed that the discharge in Rosignano is safe and inert, and that underwater currents ensure that the limestone spreads evenly on the seabed. Moreover, Solvay has stated that the limestone that flows back onto the shore and the beach plays an important role in stabilizing the shore against erosion. Solvay has also stated that they have made significant investments in Rosignano, including the implementation in 2007 of the best available technology for manufacturing soda ash (sodium carbonate), and that its soda ash production process was carried out in full compliance with European Union and Italian law – both national and regional.

67. In 2021, two complaints were filed against Solvay with the Livorno public prosecutor's office, the first for greenwashing⁵⁹ and the second to verify allegations of pollution of seawater and the coastal stretch in front of the Rosignano Marittimo plant. The risk of greenwashing was also brought before the European Parliament.⁶⁰

68. In January 2022, the Minister of Ecological Transition renewed Solvay's integrated pollution prevention and control permit for Rosignano for 12 years, with the Ministry stating that the renewed authorization was unrelated to the wider and more complex issue of environmental damage and reclamation at Rosignano, which the Ministry was continuing to work on.⁶¹

⁵⁶ Elisa Martinuzzi and Vernon Silver, "Decades of Dumping Plagued an Italian Beach Paradise. Then Officials Detected Mercury", 31 March 2022, *Bloomberg News*.

⁵⁷ See <https://wedocs.unep.org/handle/20.500.11822/535>.

⁵⁸ Claudio Marabotti and others, "Mortality for Chronic-Degenerative Diseases in Tuscany: Ecological Study Comparing Neighbouring Areas with Substantial Differences in Environmental Pollution", *International Journal of Occupational Medicine and Environmental Health*, vol. 30 (2017).

⁵⁹ Greenwashing is disinformation disseminated by an organization so as to present an environmentally responsible public image.

⁶⁰ See https://www.europarl.europa.eu/doceo/document/E-9-2021-000611_EN.html.

⁶¹ See <https://www.gazzettaufficiale.it/eli/id/2022/02/08/22A00822/SG>.

IV. Pesticides

69. The Special Rapporteur is deeply troubled by the exportation by Italian companies of pesticides that are not approved for use in the European Union because they are hazardous to human health and the environment. In 2018, Italy was the one of the main exporting countries of the European Union of banned hazardous pesticides by volume.⁶² These exports mostly include trifluralin, followed by ethalfuralin, both of which are banned in the European Union because they are suspected carcinogens.⁶³

70. The Special Rapporteur notes with concern that the national action plan for pesticides expired in 2018, and no new plan has yet been adopted. This situation and delay are incompatible with European Union Directive 2009/128/CE on pesticides, which requires that national action plans be reviewed at least every five years. According to information received, the draft text of a new plan was presented for consultation in 2019. The Special Rapporteur welcomes the news that the new draft plan will reportedly prohibit online sales of pesticides to secure stronger controls.

71. Another key issue for the draft plan is the dimensions of buffer zones. The draft plan establishes that the use of pesticides in agricultural areas close to inhabited areas or vulnerable populations is forbidden at a distance less than 50, 40, 20, 15 or 5 metres, depending on the classification of the pesticide. These no-spray safeguards are indispensable to protect vulnerable people and areas, including schools, playgrounds and hospitals, nature reserves and archaeological sites. Buffer zones are also key to prevent pollution of surface waters and groundwaters.

72. While according to information received sales of pesticides in Italy have decreased during the past decade,⁶⁴ the Special Rapporteur is concerned at the significant increase in the volume of pesticides used in Veneto, particularly in the areas growing prosecco wine. The area is one of the biggest consumers of pesticides per hectare in the country, using an equivalent of one cubic meter of pesticides per inhabitant per year.⁶⁵

73. The Special Rapporteur is also concerned about the situation in the South Tyrol area. According to information received, hazardous pesticides have been found in children's playgrounds near agricultural areas. Such hazardous pesticides include chlorpyrifos-methyl and chlorpyrifos-ethyl, which are associated with neurodevelopmental disorders in children. This hazardous pesticide is banned in the European Union, but Italy requested and received a derogation (exemption) for its use.⁶⁶ The Italian Government stated that the last derogation of 99 days was granted in 2021 and that no other would be granted.

74. The Special Rapporteur welcomes the initiative taken by several Italian municipalities to join the European Pesticide Free Towns Network. The Network aims to minimize the use of pesticides and replace them with existing sustainable alternatives, with the objective of safeguarding the health of all and the environment, and improving quality of life.⁶⁷ In that connection, in 2021, in a ruling related to the city of Conegliano, located in the Prosecco wine production area, the Council of State confirmed that municipalities were entitled to ban the use of pesticides.⁶⁸

⁶² See <https://www.publiceye.ch/en/topics/pesticides/banned-in-europe>.

⁶³ See <https://www.greenpeace.org/italy/storia/12352/scandalo-pesticidi-litalia-e-il-secondo-mggior-esportatore-di-pesticidi-gia-vietati-in-ue/>.

⁶⁴ See https://www.legambiente.it/wp-content/uploads/dossier_stop_pesticidi_2019.pdf and https://www.isprambiente.gov.it/files2020/pubblicazioni/rapporti/rapporto_334_2020.pdf.

⁶⁵ Ibid.

⁶⁶ See https://www.europarl.europa.eu/doceo/document/E-9-2020-000349_EN.html. and https://www.fitosanitario.mo.it/files/5816/2125/4707/DD11.05.21AUTOR.SUNDEK_CIMICE2021.pdf.

⁶⁷ See <https://www.pesticide-free-towns.info/towns-network>.

⁶⁸ Pesticide Action Network Europe, "Italian Court Confirms Municipalities Are Entitled to Ban the Use of Pesticides" 26 May 2021.

V. Waste management

75. The transition towards a circular economy in Italy calls for a drastic change in the approach to waste. The Special Rapporteur takes note of the important investments in waste management facilities, including segregation, recycling and waste-to-energy capacity, that are contemplated in the National Recovery and Resilience Plan.⁶⁹

76. According to the National Recovery and Resilience Plan, urban waste management systems are currently very fragile and are the subject of infringement procedures in many regions. Investments under the plan are aimed at improving the network of separate collection of urban waste; the construction of new treatment or recycling plants for organic waste, mixed materials, glass and paper packaging; and the construction of innovative plants for particular waste flows.

77. Specifically, the proposed investments aim at bridging the gaps in waste management related to plant capacity and quality standards among the different areas of the country, with the aim of bringing waste management throughout the country into line with both the current and new targets set by European and national legislation. In particular, in its recommendations, the European Commission called on Italy to invest in waste management and water infrastructure in the south. For this reason, about 60 per cent of the projects will focus on municipalities in central and southern Italy, contributing to overcoming territorial gaps. The investments and reforms outlined in the National Recovery and Resilience Plan will also lead to more efficient management, which will be key as the end-of-pipe solutions anticipated in the Plan alone cannot adequately address the waste problem and may even spark conflict with local communities in the vicinity of new or expanded waste management facilities.

78. Despite these positive aspects, members of civil society have criticized the National Recovery and Resilience Plan for failing to include actions to address the large areas of the country that need remediation and are affecting the health of the local populations, as evidenced by some epidemiological studies.

A. Export of waste from Italy to Tunisia

79. In 2020, 282 containers of waste – around 8,000 tons – were illegally shipped from Italy to Tunisia, although Tunisia lacked the necessary facilities to ensure its sound management and the shipment appears to have been carried out without its consent. The waste was classified as “19 12 12”, which corresponds in the European waste catalogue to “wastes (including mixtures of materials) from mechanical treatment of wastes”.⁷⁰ According to the company that produced the waste in the Polla plant in Italy, it was derived from the industrial processing of differentiated waste and was being shipped for treatment in Tunisia because it was more cost-effective. However, the representative of the Ministry of Environment of Tunisia indicated that the containers did not include recyclable material but only “urban and mixed waste, impossible to differentiate” and therefore were destined for disposal in landfills or incineration.⁷¹

80. The shipment was contrary to the principles of the Basel Convention and Regulation (EC) No. 1013/2006 of the European Parliament and of the Council of 14 June 2006 on shipments of wastes, and it was deemed to be illegal by the Ministry of Ecological Transition of Italy. The regional authorities of Campania engaged in several actions for the return of the waste to Italy.

81. While the Special Rapporteur regrets the excessive amount of time the containers of waste remained in Tunisia – more than a year and a half – creating a public nuisance and emitting foul odour, he welcomes that 213 of the containers were returned to Italy in February 2022.⁷² However, the Special Rapporteur is concerned about the fate of the returned waste,

⁶⁹ See <https://italiadomani.gov.it/en/home.html>.

⁷⁰ Legambiente, *Ecomafia 2021*.

⁷¹ Ibid. See also <https://giornalenews.it/archives/89201>.

⁷² See https://napoli.repubblica.it/cronaca/2022/02/21/news/rifiuti_salerno_tunisia-338547483/.

as well as the situation of the remaining 69 containers in Tunisia, which were damaged by a fire in December 2021. The Tunisian authorities have opened a criminal procedure to investigate the fire.

82. This case has highlighted the inefficiency of Italian monitoring systems and controls. The waste has now been sent to a temporary storage site set up in the military district of Persano, in the municipality of Serre.⁷³ According to the authorities, the waste will then be assessed and disposed of accordingly.

83. The Special Rapporteur is grateful for the meeting with the regional government of Campania and welcomes the suggestions for amending Regulation (EC) No. 1013/2006. In particular, the regional government recommends mandatory inspections of waste shipped across borders, even on a sample basis, as an integral part of cross-border waste management procedures; mandatory analysis of the various batches to be shipped, based on sampling plans previously approved by the regional environmental protection agencies; a better definition of the role and actions to be taken by the competent authorities in cases of illegal shipments when the responsibility lies with both the notifier and the recipient; and a requirement for financial guarantees, representing at a minimum the costs of 90 days of storage, for shipments of waste for which notification is required under Regulation 1013/2006, which funds should be made immediately available to the competent authorities.

B. Roman waste

84. Rome faces significant problems in managing its waste efficiently and adequately: in 2020, only 43 per cent of the city's waste was collected separately and recycled,⁷⁴ and the city produced 3,000 tons of non-recyclable waste every day. In April 2021, the environmental association Legambiente Emilia-Romagna mapped over 1,000 illegal dumps in Rome.⁷⁵ In fact, Rome's waste often gets shipped to other Italian regions or even abroad, which raises issues of environmental justice. For example, in April 2021, the president of the Lazio Region signed an ordinance to avoid the interruption of the public waste management service that included an agreement with the Tuscan Region to ship Lazio's waste there.⁷⁶ According to information received, this is the result of a waste management strategy that has proved to be inadequate.⁷⁷ The city should have built circular economy waste disposal plants, starting with anaerobic biodigesters for organic waste, and should have reached 65 per cent differentiated waste by 2012 in accordance with the law applicable to all municipalities. Instead, in the first half of 2021, Rome had only achieved a level of 44.9 per cent differentiated waste.⁷⁸

85. The Malagrotta landfill, once the largest in Europe, and the only site devoted to Rome's garbage disposal for about 30 years, was closed in 2013. Since the closure, resulting from a ruling by the European Court of Justice, no other site has been designated to replace it. Further exacerbating the problem is the fact that the collection, treatment and disposal of Rome's garbage has always been in the hands of a small group of private interests – sometimes, according to prosecutors, colluding with organized crime.⁷⁹

86. The Malagrotta judgment of the European Court of Justice⁸⁰ confirmed the principle set out in European Council Directive 1999/31/EC, also known as the Landfill Directive, that all waste capable of undergoing pretreatment must be pretreated before being landfilled. In addition, it clarified that European Union member States are not free to apply any pretreatment whatsoever, but must search for and implement the most appropriate

⁷³ See <https://vocedistrada.it/localita/sele-picentini/serre-rifiuti-dalla-tunisia-saranno-stoccati-a-persano/>.

⁷⁴ Statistics on Urban Waste, <https://www.comune.roma.it/web/it/roma-statistica-ambiente1.page>.

⁷⁵ Legambiente, *Ecomafia 2021*.

⁷⁶ See <https://www.regione.lazio.it/notizie/Rifiuti-ordinanza-411873>.

⁷⁷ Legambiente, *Ecomafia 2021*.

⁷⁸ *Ibid.*

⁷⁹ See <https://thepointsguy.com/news/why-is-rome-drowning-in-trash/> and <https://www.reuters.com/article/us-italy-trash-insight-idUSBREA4O07K20140525>.

⁸⁰ *European Commission v. Italy*, case C-323-13.

pretreatment option in order to reduce as far as possible any negative impacts on the environment and human health.⁸¹

87. The Special Rapporteur takes note of the efforts carried out by the different actors to manage waste in Rome and in the region, including plans to increase the recycling rates and improve waste management capacity by, for example, reducing the amount of undifferentiated waste produced, strengthening the capacity of separate collection and constructing treatment plants. Measures in Rome also include increased waste control activities by the municipal waste collection firm, deploying additional garbage collectors and increasing fines for those who do not respect recycling rules.

88. The Special Rapporteur believes that effective policies that further prevent and reduce waste in Rome are indispensable.

VI. Conclusions and recommendations

89. The Special Rapporteur wishes to reiterate his appreciation to the Government of Italy for its willingness to discuss openly and constructively matters relevant to his mandate.

90. In the past, Italy has shown strong leadership in environmental matters, as when it became a pioneer in the prohibition of asbestos in 1992. It is therefore all the more important that Italy increase its efforts to redress the adverse impacts of decades of industrialization on the enjoyment of human rights.

91. In this regard, the Special Rapporteur celebrates the approval of a new law by the Italian parliament in February 2022 mandating that the State must safeguard the environment, biodiversity and natural ecosystems in the interest of future generations, changing the Constitution to state that private industry and private economic initiatives must not damage human health or the environment. Now is the time for the Government to move from words to action.

92. Another welcome improvement made by Italy is the introduction in the criminal code of the crimes of environmental pollution and environmental disaster in 2015. However, the Special Rapporteur is concerned by the legislative changes in 2021 to speed up judicial processes that apply accelerated prescription times to environmental crimes. It is important to recognize that substantial time may be required to properly complete an investigation for such crimes.

93. In too many instances, Italy has failed to protect people from exposure to toxic substances, such as the hundreds of thousands of people in the Veneto Region impacted by water contaminated with perfluoroalkyl and polyfluoroalkyl substances due the activity of the Miteni plant. Despite the implementation of positive initiatives, such as the SENTIERI Project, which analyses the health profile of populations affected by contaminated sites of national interest, the Special Rapporteur is concerned by the slow pace of the remediation process for many national priority contaminated sites, such as Porto Marghera, and *Terra dei Fuochi*, where hazardous wastes have been released and environmental protection has been neglected for decades. Populations living in nearby areas suffer an excess of cancers and other diseases.

94. The Government must better acknowledge and take responsibility for its decisions, actions and inaction regarding the toxic pollution that is profoundly affecting the health of its communities. This includes the Ilva Taranto plant, where an obsolete facility and production process have been allowed to operate for decades, emitting dangerous substances and creating intolerable levels of pollution. This also includes Solvay's operations in Livorno, where for decades, hundreds of tons of heavy metals have been discharged into the sea. In these and other instances of unsound management

⁸¹ See <https://www.impel-network.eu/publications/project-abstract-landfill-project-reinforcement-programme-on-inspection-skills-for-landfill-sites-and-pre-treatment-plants/>.

of polluting activities, Italy should uphold the right to a healthy environment and take action to provide access to remedy and fulfil the polluter pays principle.

95. Italy has taken some positive steps regarding the use of pesticides, which have led to a decrease in the sales of pesticides over the past decade. However, the Special Rapporteur is gravely concerned by the export from Italy of hazardous pesticides that are not approved for use in the European Union. This is a blatant case of double standards that is leading to the abhorrent exposure and exploitation of local farming communities and children in the fields of the global south. The Special Rapporteur is also seriously concerned by the increase in the volume of pesticides used in regions where prosecco is grown, such as the South Tyrol and Veneto Regions, and particularly by the presence of hazardous pesticides in children's playgrounds near agricultural areas.

96. The transition towards a non-toxic circular economy calls for Italy to make a drastic change in its approach to waste, and for the improvement of waste management facilities in the country, which is much needed. Furthermore, the Special Rapporteur urges the city of Rome and the Lazio Region to ensure that effective and sustainable policies that prevent and reduce waste are implemented. He also urges Italy to take steps to prevent illegal shipments of waste.

97. The National Recovery and Resilience Plan provides an important opportunity for Italy to address issues of environmental injustice and increase efforts to move towards a zero-pollution, non-toxic environment, where the precautionary principle prevails. While the Plan has limitations that should be urgently addressed, such as the lack of inclusion of initiatives to remediate polluted areas that affect the health of local populations, it has the potential to advance the 2030 Agenda for Sustainable Development for communities adversely affected by hazardous substances.

98. The Special Rapporteur recommends that the Government of Italy:

- (a) Ratify the Stockholm Convention on Persistent Organic Pollutants;
- (b) Put an end to the abhorrent double standards that make it possible to export banned, highly hazardous pesticides, and exercise leadership at the regional level to secure a European Union-wide ban on the export of prohibited pesticides;
- (c) Re-evaluate its industrial operations to ensure that it takes the necessary steps to ensure a transformation towards a zero-pollution economy. Italy should exercise leadership at the regional level to aid and support this transformation effort to improve and modernize Europe's industrial emissions framework;
- (d) Develop effective policies that further prevent and reduce waste and establish a comprehensive strategy towards a non-toxic circular economy;
- (e) Redress the adverse impacts of decades of industrialization on the enjoyment of human rights by, among others, increasing resources for an effective and urgent assessment and remediation of contaminated sites;
- (f) Promote the use by industries of technologies and production methods that do not impair human health or the environment;
- (g) Provide long-term and adequate funding for the continuation of the SENTIERI Project in order, among others, to enable long-term comprehensive analysis and monitoring of the impacts on the environment, human health (including physical and mental health) and human rights of pollution at sites of national interest. Local and national authorities should also conduct analyses and monitoring, as appropriate, and take effective action to address their findings as well as those of the SENTIERI Project;
- (h) Take the necessary steps towards the restriction of the use of perfluoroalkyl and polyfluoroalkyl substances as a class at the national level, address the negative impact of the contamination by perfluoroalkyl and polyfluoroalkyl substances and exercise regional leadership, as the European Union prepares to address the serious health and environmental threats posed by these chemicals;

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- (i) Step up efforts to accelerate reclamation and remediation projects at Porto Marghera;
- (j) Implement remediation activities in *Terra dei Fuochi* immediately, with adequate support from the central Government;
- (k) Adopt, without further delay, all necessary measures to prevent the environmental pollution caused by activities of the Ilva steel production plant in Taranto, as well as to redress the damage to the health and well-being of the local population, paying particular attention to the protection of the most vulnerable categories of people, including by stopping the burning of coal for the production of electricity and by implementing the use of best available technologies for the whole production process;
- (l) Ensure that any operations at Ilva Taranto, and any new production authorization, respect the updated WHO air quality guidelines;
- (m) Ensure that all companies registered in Italy, and in particular those that are controlled by the State, like Ilva, respect human rights and the principles contained in national and international law and in soft law instruments;
- (n) Take steps to significantly reduce the volume of pesticides used in Italy, in line with the precautionary principle;
- (o) Ensure that buffer zones are appropriately sized to protect people, waters and sensitive areas – including vegetable gardens and certified organic crop cultivation – from the serious risks and harms of pesticide spray drift;
- (p) Prevent illegal waste shipments, including by assessing waste prior to shipment, and allocating the cost of such assessment according to the polluter pays principle;
- (q) Formulate and effectively implement a plan to ensure the environmentally sound management and disposal of the waste returned to Italy from Tunisia, as well as a plan for the return of the containers that remain in Tunisia;
- (r) Cooperate with other countries, where appropriate, to secure remedies for victims of exposure to hazardous substances in Italy or perpetrated by Italian companies, and implement the polluter pays principle;
- (s) Foster international cooperation initiatives to share the wide experience and expertise of the Italian Carabinieri in their fight against environmental crimes.
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