



# Dirty deals

## Case studies on corruption in waste management and trade

Nancy Isarin, Claudia Baez Camargo and Amanda Cabrejo le Roux | November 2023



## Table of contents

<b>About the authors .....</b>	<b>4</b>
<b>Acknowledgments.....</b>	<b>6</b>
<b>Executive summary .....</b>	<b>7</b>
<b>Acronyms and abbreviations .....</b>	<b>9</b>
<b>1 Introduction.....</b>	<b>10</b>
1.1 Objectives	10
1.2 Methodology	11
1.3 Structure	12
<b>2 The waste management landscape .....</b>	<b>13</b>
2.1 Waste and its impact	13
2.2 Elements of a waste management system	13
2.3 Waste management operations	14
2.4 Global waste management market	15
2.5 Value of waste	16
2.6 Strategic importance of waste management and associated risks	18
2.7 Legal and regulatory frameworks for waste management	20
<b>3 Assessing corruption risks related to waste management processes .....</b>	<b>24</b>
3.1 Corruption risks in domestic management of waste	24
3.2 Corruption risks in transboundary movements (TBM) of waste	27
<b>4 Case studies .....</b>	<b>31</b>
4.1 The Albanian waste incinerators case	31
4.2 The Lebanon case: corruption and public procurement	34
4.3 The North Macedonia case: Import of hazardous oil for heating	38
4.4 The Canada – Philippines case: corruption and import licences	40
4.5 The Stericycle case: transnational bribery network	43
<b>5 Conclusions and takeaways .....</b>	<b>46</b>
5.1 Importance of clear legal frameworks and governance mechanisms	46
5.2 Costs and impact of waste management corruption	47
5.3 Patterns of corruption related to waste management	47
5.4 Factors enabling corruption in the waste sector	49
5.5 Takeaways for national stakeholders and international partners	50

<b>6 Annex I: Glossary of terms.....</b>	<b>52</b>
6.1 Corruption	52
6.2 Waste offences	53
<b>7 Annex II: Interviews.....</b>	<b>56</b>

## About the authors



**Nancy Isarin**

Waste Crime and Environmental Enforcement Expert

Nancy Isarin is an independent expert with expertise in the practical implementation and enforcement of Multilateral Environmental Agreements and criminal investigations related to waste crimes. She holds a Bachelor of Environmental Science from the Vocational University of Utrecht.

Email: [nancy.isarin@ambiendura.com](mailto:nancy.isarin@ambiendura.com)



**Claudia Baez Camargo**

Head of Public Governance, Basel Institute on Governance

Dr. Claudia Baez Camargo is responsible for the development, oversight and management of the Basel Institute's research activities, as well as delivering technical assistance projects aimed at preventing corruption in the public sector. Claudia holds a PhD in Political Science from the University of Notre Dame, USA and a Master in Economics from the University of Cambridge, UK.

Email: [claudia.baez-camargo@baselgovernance.org](mailto:claudia.baez-camargo@baselgovernance.org)



**Amanda Cabrejo le Roux**

Environmental Crime Specialist

Dr. Amanda Cabrejo le Roux is the Environmental Crime Specialist of the Green Corruption Programme. She is the Lead Researcher of the *Environmental Corruption Deep Dive Series*.

Amanda holds a PhD in International and Comparative Criminal Law from the Sorbonne Law School (University Paris I Pantheon-Sorbonne). She also holds a LL.M. in International Criminal Law (University of Amsterdam/Columbia Law School), Master's Degrees in French Law and Comparative Criminal Law (Sorbonne Law School) and Spanish Law (Universidad Complutense), and Bachelor's Degrees in History (University Paris 1) and Anthropology (University Paris 8).

Email: [amanda.cabrejo@baselgovernance.org](mailto:amanda.cabrejo@baselgovernance.org)

## About this report

This report is part of the *Environmental Corruption Deep Dive Series*, a multidisciplinary research project of the Green Corruption programme at the Basel Institute on Governance. The Environmental Corruption Deep Dive Series analyses, through selected case studies, how corruption facilitates environmental crimes.

The main objectives of the research project are to raise awareness of the seriousness of environmental corruption and create a better understanding of its concrete mechanisms. By building up a collection of case studies from various countries and sectors, the series seeks to identify patterns of environmental corruption and ultimately a general typology. In doing so it aims to expand the global conversation on environmental corruption and bolster dialogue between stakeholders at the national level.

The *Environmental Corruption Deep Dive Series*, including this report, is made possible by the generous support of the Principality of Liechtenstein.

It is part of the Basel Institute on Governance Working Paper Series, ISSN: 2624-9650. You may share or republish the Working Paper under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License (CC BY-NC-ND 4.0).

**Suggested citation:** Isarin, Nancy, Claudia Baez Camargo, and Amanda Cabrejo le Roux. 2023. 'Dirty deals: Case studies on corruption in waste management and trade.' Working Paper 49 / Environmental Corruption Deep Dive Series, Basel Institute on Governance. Available at: [baselgovernance.org/publications/deepdive2-waste](https://baselgovernance.org/publications/deepdive2-waste).

## Acknowledgments

This report benefited from the contributions of numerous individuals who shared their expertise and views at various stages of the research process.

The research team is particularly grateful to the individuals who agreed to share their perspectives during extensive interviews. Most of them preferred to remain anonymous and we thank them collectively.

The research team is also deeply grateful for the colleagues of the Basel Institute on Governance who participated in the internal review and extensive editing process: Juhani Grossmann (Team Leader, Green Corruption programme), Rebecca Batts (Lead Corruption Prevention Advisor, Green Corruption Programme) and Monica Guy (Communications Specialist). Finally, we thank for their invaluable contribution the following experts and partner organisations who participated in the external review process: Gregorio Rafael Bueta (Environmental Lawyer), Caroline Henshaw (Environment Editor, Organized Crime and Corruption Reporting Project), Petrit Imeraj (Coordinator Anti-Corruption and National Protected Areas, Ministry of Justice of Albania), Anna Ewa Kobyłeczka (Environment Programme Manager, World Customs Organization), Vittoria Luda di Cortemiglia (Senior Project Manager, SCYCLE Programme, United Nations Institute for Training and Research, UNITAR), Ieva Rucevska (Senior Expert, GRID Arendal), Jihan Seoud (Program Manager, Energy and Environment Programme, UNDP Lebanon) and Preston Whitt (Anti-Corruption Advisor and Research Coordinator, Targeting Natural Resource Corruption, WWF-US).

## Executive summary

Waste management is a huge industry at the local, national and international levels. Public services play a key role in dealing especially with waste generated by households. Getting it right is essential if we are to achieve a circular economy and the Sustainable Development Goals.

Complex legal frameworks and their weak implementation open up spaces for criminals to profit from illegally managing or trading in waste. The consequences on the environment and human health can be severe.

The role of corruption in crimes involving waste is unexplored. An initial analysis of five cases shows the potential for corruption to play a role in:

- influencing **policy decisions** involving waste management;
- **corrupt deals** involving the selection of waste management companies linked to powerful elites;
- **schemes to gain lucrative waste management contracts** through systematic bribery;
- **illegal imports** of hazardous waste for profit, avoiding or suppressing formal controls.

Different corruption risks affect different steps of the waste management chain:

1. **Policies and procedures:** Undue influence, state capture
2. **Procurement:** Bribery, nepotism, favouritism
3. **Inspections:** Bribery, undue influence, collusion

External factors make corruption and crime linked to waste management easier to get away with, including:

- **poor record keeping** and a lack of access to information even where records exist;
- **low awareness and understanding** of the field among public procurement officers, law enforcement and the judiciary;
- **insufficient monitoring** and lack of inspection and enforcement capacities;
- **poor cooperation** between environmental, (financial) investigation and other government agencies.

In addition to reforming the legal frameworks governing waste, basic steps to start addressing corruption risks are:

- **More research and corruption risk assessments** on waste management supply chains.

- **Greater investment in preventive measures**, starting with digitalising administrative processes.
- **More joined-up enforcement** of waste management legislation through inter-agency cooperation and joint investigations.
- **Extending wider transparency and accountability** measures like open data and whistleblowing systems to the waste management field.
- **Targeted capacity building** and awareness raising for regulators and law enforcement.
- **Collective Action initiatives** between public, private and civil society actors in the waste management field, to build trust and understanding, share good practices and co-develop self-regulatory standards.



## Acronyms and abbreviations

<b>DENR</b>	Department of Environment and Natural Resources, Philippines
<b>EU</b>	European Union
<b>NBI</b>	National Bureau of Investigation, Philippines
<b>OECD</b>	Organisation for Economic Co-operation and Development
<b>PIC</b>	Prior Informed Consent procedure of the Basel Convention
<b>SPAK</b>	Special Anti-Corruption Structure (Albanian: Struktura e Posaçme Anti-Korrupsion)
<b>TBM</b>	Transboundary movements of waste
<b>UNCAC</b>	United Nations Convention Against Corruption
<b>UNEP</b>	United Nations Environment Programme
<b>WSR</b>	Waste Shipment Regulation, European Union

# 1 Introduction

The waste management sector provides a vital service for the good functioning of communities and economies and is essential for the protection of the environment and public health. This sector has been under increased scrutiny in recent years. Waste crime has become a growing concern around the world because of its dire impact on the environment and human health. In addition to challenges related to local waste management, the public has become more aware of the fact that this is an international issue with the transboundary movement of waste and the risks posed to the environment and people in countries receiving large quantities of other countries' waste.

Policies and legal frameworks are evolving to better address waste management challenges. However, the role that corruption plays in facilitating waste crimes is yet to be unpacked and addressed effectively to ensure better governance in this sector.

## 1.1 Objectives

There is currently a knowledge gap as this issue has not yet been explored in a systematic way. Concrete data or figures concerning the prevalence of corruption in the waste sector are not available and/or difficult to gather. The limited academic literature in this area mainly refers to anecdotal evidence (see for example: (Cesi 2019)). Organised crime studies have occasionally covered the waste management sector in Italy, but that is an exception. Elsewhere the governance issues of the waste management sector are still little known. This report is a first step to pave the way for a wider awareness and understanding of the nexus between corruption and waste crime.

Like other economic sectors characterised by large infrastructures and public services, the waste management sector is not immune to corruption risks. Large public funds are involved. Complex procurement processes and waste trade flows can lead to opportunities for abuse for personal gain where oversight is insufficient. At the same time, environmental agencies lack robust mechanisms to address corruption risks relating to waste. This also means that, on the bright side, a lot can be done to strengthen the good governance of the sector.

Of course, situations are diverse and by exploring concrete case studies from around the world, the report gives a first sense of the variety of situations and challenges. The case studies also help to identify similarities across the waste management sector. An emerging typology of patterns of corruption can be drawn from this initial research and concrete takeaways can be identified. We hope that they can assist in guiding further dialogue, research and action to address what has been until now an overlooked governance issue.

## 1.2 Methodology

This report is based on the common methodology established for the *Environmental Corruption Deep Dive Series*. The multidisciplinary approach is at the core of the series. It meant bringing together in the research team national and international experts from the waste management, environmental crime and anti-corruption fields of expertise to tackle the complexity of environmental corruption.

The common methodology includes three main research steps: an initial desk research, the identification and prioritisation of case studies and the realisation of a series of interviews.

### 1.2.1 Desk research

The desk research provided key background information and a first bird's eye view of the topic of waste crime in order to understand the state of the field. This entailed

- a. fleshing out a typology of waste management chains and their attributes;
- b. assessing what empirical information is already available on waste crime and corruption;
- c. identifying gaps in our knowledge that need be further explored.

The limited publicly available information, or in some instances conflicting information, on specific cases was one of the key challenges.

### 1.2.2 Identification and prioritisation of cases

We identified case studies that are indicative of relevant patterns and can therefore be used to illustrate key themes arising from the research. The desk research yielded 28 cases which we aggregated in a case matrix and subsequently analysed to prioritise cases on the basis of the criteria of relevance and feasibility. The case studies in this report were selected taking into account the need to reflect different:

- a. types of waste crimes;
- b. corruption risks along the waste management chain;
- c. geographical scopes (national and transnational).

We analysed the case studies using publicly available sources: court decisions, media reports, civil society reports and academic literature.

### **1.2.3 Interviews**

The third step involved a series of interviews to provide additional perspectives on the case studies. Because of the sensitivity of the topic, all interviewees were offered the option to remain anonymous. Interviews were conducted with 11 individuals with expertise in the waste management and anti-corruption fields, including staff from environmental NGOs, current or former employees of governmental bodies, independent legal consultants and investigative journalists.

The report went through a review process with in-house experts of the Basel Institute on Governance (internal review process) and with external reviewers with expertise in waste management or anti-corruption.

## **1.3 Structure**

The paper starts with an overview of the waste management landscape, including the international legal frameworks that regulate parts of it (section 2).

This is the essential background to map out elements that contribute to corruption risks in the waste management sector (section 3). The paper maps corruption risk areas in the domestic and transnational waste management systems.

Five case studies provide examples of key corruption risks related to both national waste management systems and transnational flows of hazardous or other waste (section 4).

The paper ends with conclusions and takeaways for national and international stakeholders in addressing corruption risks related to waste management (section 5).

Readers unfamiliar with either the waste or corruption landscape are advised to start with the simple glossary of terms in Annex I.

Annex II contains the list of interviews.

## 2 The waste management landscape

### 2.1 Waste and its impact

The term “waste” covers a wide range of materials, ranging from household and industrial waste to medical waste and agricultural waste. It may include streams like electronic and electrical waste, construction waste, plastic waste, waste oil, lead-acid batteries, and end-of-life vehicles. Waste can be classified as non-hazardous or hazardous, i.e. containing certain materials, components or contaminations. The main international multi-lateral agreement related to waste, the Basel Convention on the Control of Transboundary Movements of Hazardous Waste and Their Disposal (“Basel Convention”), defines wastes as substances or objects which are disposed of or are intended to be disposed of or are required to be disposed of by the provisions of national law (article 2 paragraph 1).

Due to its potential harm, waste needs to be managed in such a manner that any risks of adverse effects on the environment and human health are reduced to a minimum. Waste management is the process of collecting, treating and disposing<sup>1</sup> of waste materials in a manner that is safe, efficient and effective while minimising negative impacts.

According to the World Bank, the world is expected to generate 3.4 billion tonnes of waste annually by 2050, compared to 2.01 billion tonnes in 2016 (Kaza, et al. 2018). As the world population increases and environmental hazards become more urgent to address, developing and implementing safe and effective waste management systems should be prioritised to address current waste streams as well as emerging ones.

Such systems should be protected from acts of corruption that subvert these systems and can cause negative health and environmental consequences.

### 2.2 Elements of a waste management system

At a very basic level, a waste management chain includes activities such as collection and transportation of waste, resource recovery and disposal.

**Collection of waste** refers to the process of gathering waste from various sources and transporting it to a facility for further processing, such as a landfill, recycling facilities or waste-to-energy plants. Collection can be performed by government agencies, private companies or authorised entities such as state-owned enterprises. The frequency, methods and routes of collection vary depending on the type of waste and the local conditions.

---

<sup>1</sup> Disposal refers to final disposal or recovery, recycling, reclamation, direct re-use or alternative uses.

The following are the main methods of waste collection:

- **Roadside collection:** Waste is collected from the roadside, where it is placed in containers for pickup. This is the most common method of waste collection for residential areas, also referred to as household waste.
- **Drop-off centres:** Residents or workers bring their waste to a designated facility, where it is sorted and processed.
- **Commercial collection:** An authorised waste management entity collects waste from businesses such as restaurants and offices and industries.
- **Special collection:** Waste that cannot be collected through regular methods, such as bulky items or hazardous waste, is collected through special programmes.

Some countries might not follow any of these methods.

Effective collection of waste requires a well-designed and implemented collection system. Resources and infrastructure, such as appropriate containers and transport vehicles, need to be adequate. There must also be incentives to separate waste streams and encourage separate collection, as well as regular pickup schedules.

## 2.3 Waste management operations

Waste can be either managed for recovery, recycling or reclamation purposed, or for direct re-use or prepared for alternative uses. Examples include the re-use of oil for heating (if certain quality standards are met), metal recycling or composting for agriculture.

- **Repair and re-use:** Waste, such as electric and electronical equipment, can be repaired and made ready for its originally intended purpose. It can also be treated for an alternative use, such as textile waste which is remanufactured for industrial rags.
- **Recycling:** Waste is processed to extract valuable resources, which are then used to produce new products. Recycling is typically used for materials such as paper, glass, metals and plastic. Recycling of metals can sometimes be more economically beneficial (as well as environmentally less damaging) than virgin mining.
- **Composting:** Organic waste is decomposed through industrial or natural processes to produce compost, which can be used to fertilise soil. Composting is typically used for food waste, garden waste and other organic waste materials.

Waste is finally disposed of when it cannot be reused, recycled, reclaimed or otherwise used. The main final waste disposal options include:

- **Landfilling:** The waste is deposited into or on land in a designated area.
- **Incineration:** Waste is burned at high temperatures to reduce its volume and convert it into ash and gaseous emissions. Incineration is typically used for hazardous and medical waste. Incineration of waste combined with energy generation, also known as “waste-to-energy”, means residual waste can be used as an energy source.

Waste disposal should be designed and managed to minimise the negative impacts on human health and the environment. This includes measures to prevent the release of hazardous substances, control odours and protect air and water quality. For example, landfills should be designed to protect the environment from contaminants that may be present in the waste stream. Consequently, landfills cannot be built in environmentally sensitive areas and should be placed using on-site environmental monitoring systems to monitor and check for any sign of leakage, groundwater contamination and landfill gas.

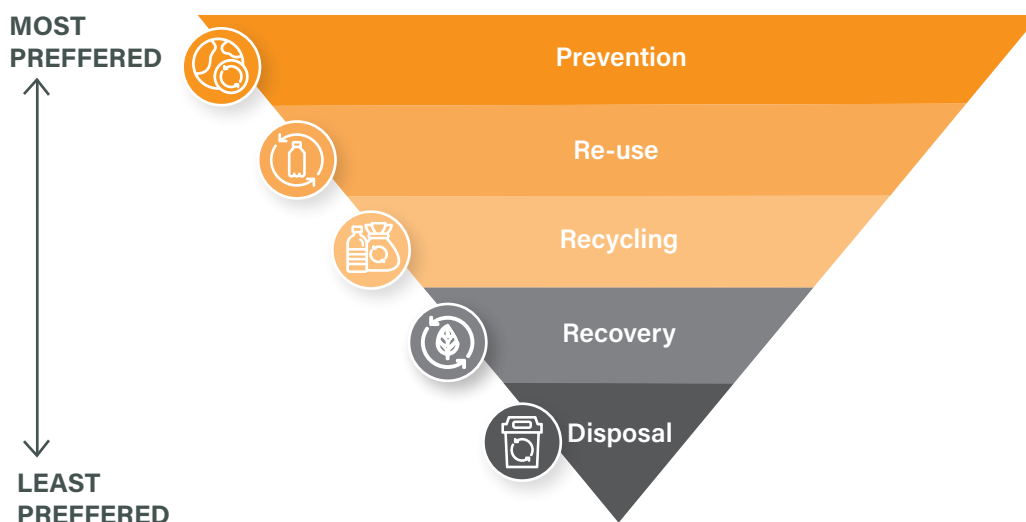


Figure 1: Waste management options, from most to least preferred considering environmental impact.

## 2.4 Global waste management market

The global waste management market is growing rapidly: it was estimated at USD 993.4 billion in 2021 and is expected to hit around USD 1,782.5 billion by 2030 (Precedence Research 2022). The market for waste *trade* is also a multimillion-dollar industry that requires special attention.

Demand is not only steady but growing. The challenges of managing waste in fast-growing urban areas are not relevant only to low- and middle-income countries, but also affect cities in advanced economies.

The supply of collection and management services for waste generated by households is a core task of local and national governments globally. As a World Bank study (Hoornweg e Bhada-Tata 2012) indicated:

**“Municipal solid waste (MSW) management is the most important service a city provides; in low-income countries as well as many middle-income countries, MSW is the largest single budget item for cities and one of the largest employers.”**

The pressures of escalating demand for waste management, and governments' challenges in meeting this demand through efficient and safe provision of services, are significant. Weak governance and insufficient allocated budgets compound the problem from a public-sector perspective.

As with any market, the global waste management market is driven by supply and demand as well as considerations of cost minimisation and profit maximisation.

From a private-sector perspective of businesses that generate or deal in waste, the challenges of adequately processing the waste are also substantial. Businesses are typically under pressure to minimise costs and maximise revenue.

## **2.5 Value of waste**

### **2.5.1 Negative and positive value**

The diversity of waste streams means waste can be associated with positive (for example metal or paper waste) or negative value (for example hazardous waste) and vary depending on the regional context. A negative value means that it costs money to properly dispose of it and/or treat it in a way that is safe and does not harm the environment and human health. The costs for managing such waste include collection, storage, treatment, technology, and labour costs in line with national laws and environmental regulations, which may vary significantly from country to country.

Costs also depend on the type of waste and the treatment technology. Hazardous waste and waste requiring special treatment have a particularly high negative value because it is costly to treated them in an environmentally sound manner.

From a cost perspective, there is therefore an incentive for entities responsible for or involved in disposing of waste, especially in countries with more stringent regulations, to attempt to avoid or reduce these costs to a minimum by:

- a. exporting the waste to other locations, or even countries, with less strict environmental standards.
- b. mislabelling or concealing the nature of the waste.
- c. illegally dumping or otherwise inadequately disposing of such waste domestically.



Some waste streams might have a positive value, like goods that can be repaired and resold or scrap metal that can be remelted. Others contain valuable parts, like certain precious metals found in waste electronic and electrical equipment (also known as e-waste). Examples include gold, silver, copper, platinum and palladium. If it is possible to extract these materials and components from the waste and resell them, the waste may have a positive value.

### 2.5.2 Waste management and the circular economy

Waste management plays a key role in the circular economy by reducing the amount of waste generated and by finding new uses for waste materials. Effective waste management can support the transition to a circular economy by reducing the need for raw materials and by creating new business opportunities for the recovery and reuse of waste materials. This includes the collection, sorting and processing of waste to extract valuable resources, as well as the design of products and systems that are easy to disassemble and reuse.

Governments, businesses, and consumers are gradually realising the need to work towards a circular economy in order to minimise our environmental footprint. From this perspective, an effective waste management system requires a comprehensive approach: waste generation should be minimised to begin with, followed by re-use, recycling and recovery operations. The last and least preferred option should be final disposal.

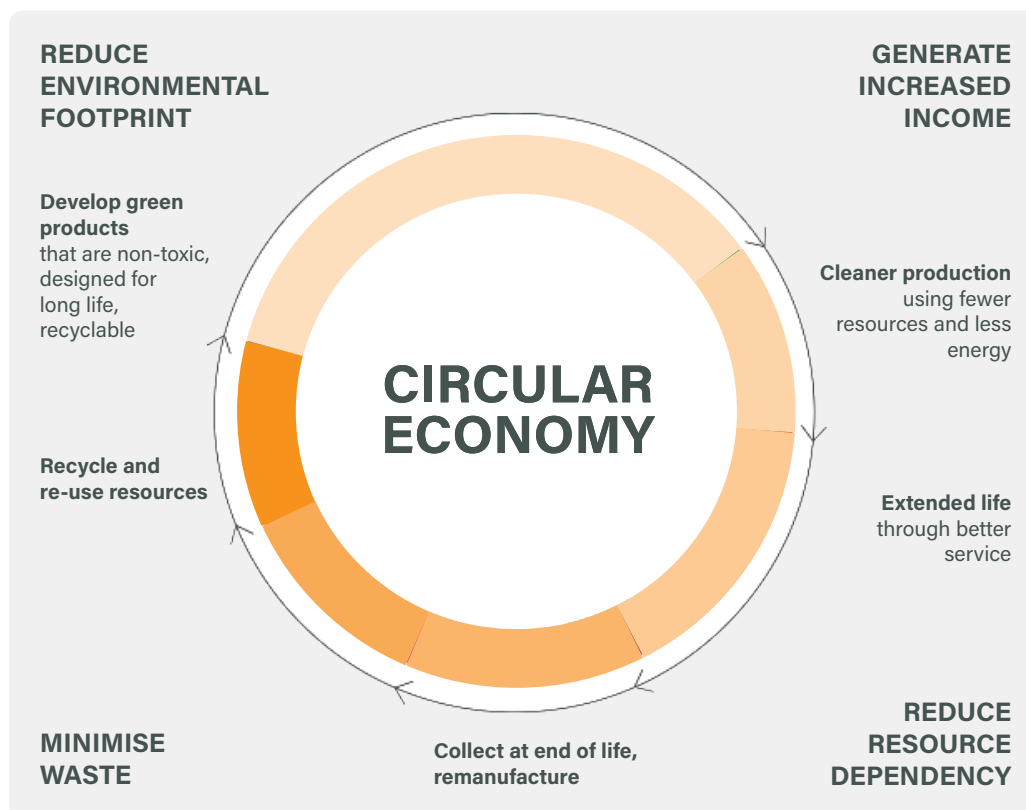


Figure 2: Elements of a circular economy. Adapted from an image by UNIDO.

### 2.5.3 Diversity of waste streams

Each type of waste should be treated according to its properties and requirements through a distinct waste management treatment. Each treatment is subject to particular laws and regulations, monitoring mechanisms as well as technologies, capacities, and economic drivers and incentives.

Yet no matter which waste stream one is interested in, transparent and adequate management is required to protect the environment and human health. Those involved – private companies or public-private partnerships – typically aim to reduce waste management costs while recovering valuable materials. This should be done in a way that reduces adverse effects on the environment and human health.

### 2.5.4 Trade in waste

The trade in waste is an important feature in the landscape and one that has acquired a truly global dimension. Waste trade refers to the buying and selling of waste and waste management services, in particular between countries. Activities cover the export and import of waste for disposal or recovery, arranging for the transit of waste and the exchange of waste management technologies and services. Waste trade is governed by international as well as national laws and regulations. The Basel Convention regulates the trans-boundary movement of hazardous and other waste. It seeks to ensure that such waste is managed in an environmentally sound manner and the generation of hazardous and other wastes is reduced to a minimum.

## 2.6 Strategic importance of waste management and associated risks

Due to its characteristics as a key public service, waste management is a strategic sector as well as a highly political one. It must also be noted that there is a significant discrepancy between countries of different income levels. In high-income countries, waste management services are typically financially covered by three actors: producers, public authorities and service users. Low-income countries, where the costs are mostly covered by the state, face stronger challenges.

When waste collection systems fail, communities feel the effects immediately. Service providers are therefore powerful. As a Bloomberg article (O'Sullivan 2023) put it:

**“Sanitation strikes are indeed remarkable in their power to bring social discord to the eyes and ears (and noses) of the wider world, and they can bring on lasting political changes.”**

However, the immediate visibility of the underperformance of waste collection systems is not paralleled in the case of the processing and disposal of waste. In fact, some of the negative impacts of substandard mechanisms may not be obvious, to the extent that one may even speak about market failure. In

particular, the challenges in adequately costing and including externalities in prices (such as the cost of air pollution due to emissions from landfills), can result in shifting the true costs over to the public, for example, in the form of environmental damage and health risks.

The price entire societies are paying for these externalities is high, since the risks and impacts of improper shipments and management of waste can be far-reaching. As an example, the rapidly increasing levels of plastic waste generation and mismanagement pose a serious global environmental problem that jeopardises not only humans, directly and indirectly through the food chain (Mamun, et al. 2023), but also animals at a massive scale in the oceans as well as on land.

Wastes, hazardous or other, may end up at facilities that cannot handle the waste in accordance with environmental, health and safety standards and regulations. Alternatively, waste may not reach a treatment facility at all, and may be illegally dumped or burned without any control or mitigation measures. This not only impacts the environment, including water, soil and air pollution. Human health may also be directly and indirectly endangered due to unsound practices with waste. The consequences of ill-treated waste may even have an economic impact on local communities, tourism, farmers and others depending on the state of the environment.

Furthermore, the different technical, operational and logistical details involved in the correct management of different waste streams generate a vast opportunity space across which formal rules might be bent, broken and instrumentalised towards reducing costs, maximising profits and/or extracting rents. For example, waste generators can disguise waste needing special processing as waste that does not require special treatment, to avoid paying the full costs of processing and disposal.

The cost-reducing and profit-maximisation motives are, in the global markets, exacerbated by structural economic asymmetries: It might be attractive for operators or businesses from low and middle-income countries to gain profitable business by accepting mislabelled waste from abroad and inadequately disposing of hazardous waste. As a United Nations Environment Programme (UNEP) report on waste crime stated (UNEP 2015),

**“The key driver for illegal waste shipments to destination countries is the profit generated from payments for safe disposal of waste that in reality is either dumped or unsafely recycled.”**

Waste crimes are profitable and even attractive given that, like other environmental crimes, there is a low risk of detection and often low penalties if caught. According to a report from Interpol (INTERPOL 2022) in which 27 cases were examined, the proceeds of illicit activities involving waste (or pollution offences, as referred to in the report) ranged across the cases from USD 175,000 to USD 58 million. An estimated projection indicates that the proceeds of crime of the 27 cases combined may have amounted to USD 529.45 million.

Exact figures on the profits of illegal waste trafficking globally are unknown but are presumably in the hundreds of millions of US dollars.

As a result of the sector's characteristics and vulnerabilities, both domestic and transnational waste management value chains are prone to illicit activities. At the transnational level, as the UNEP report confirmed, the shipment of hazardous material and electronic waste poses a particularly acute threat because of the growing involvement of organised crime. It entails money laundering, increased criminal proceeds and an opportunity for further diversification of criminal proceeds. According to the same report,

**“there is likely no other area of organised crime that provides such a significant opportunity for money laundering and tax fraud as waste disposal, with its near complete lack of monitoring, statistics or reporting.”**

In a recent operation supported by Eurojust and Europol, judicial and law enforcement authorities in Italy and Germany dismantled an organised crime group suspected of illicit waste trafficking, false invoicing and money laundering in several European countries (EUROJUST 2023).

At the national level, waste management systems are also vulnerable to capture and instrumentalisation by local criminal organisations. Criminal organisations, such as the mafia, collude with local authorities to control waste markets. They may use corrupt practices to arrange for example for falsified transport and waste processing documents, or ensuring impunity for the criminal waste operators (Cesi 2019). This undermines proper and legal treatment of the waste (D'Amato Alessio 2015).

## **2.7 Legal and regulatory frameworks for waste management**

As the previous section underscored, the waste management sector is susceptible to market failure and presents additional risks involving a broad range of factors, including environmental and health damage and the involvement of organised crime. All these factors speak to the importance of ensuring adequate legal frameworks and regulations, including adequate penalties for illegal behaviours. Some laws and regulations apply to the domestic management of waste, and some apply at the regional and international level.

Some parts of the waste management chain and the environmentally sound management of waste, in particular transboundary movements of waste (TBM), are regulated by international agreements.<sup>2</sup>

The Basel Convention is the main international agreement that regulates the transboundary movement and management of hazardous waste (such

---

<sup>2</sup> International frameworks related to marine pollution and discharges at sea are not covered as they go beyond the scope of this report.

as medical waste, lead acid batteries or asbestos waste)<sup>3</sup> and categories of other waste requiring special consideration (such as household waste and mixed plastic waste).<sup>4</sup>

The Basel Convention entered into force in 1992 and has, as of October 2023, 191 Parties including 188 UN member states, the Cook Islands, the European Union and the State of Palestine. Only five UN member states are not parties to the Basel Convention: Timor-Leste, Fiji, Haiti, South Sudan and the United States.

The overarching objective of the Basel Convention is to protect human health and the environment from the adverse effects of hazardous waste. The provisions centre around the following principal aims (as per the website of the Convention):

- **“the reduction of hazardous waste generation and the promotion of environmentally sound management of hazardous wastes, wherever the place of disposal;**
- **the restriction of transboundary movements of hazardous wastes except where it is perceived to be in accordance with the principles of environmentally sound management; and**
- **a regulatory system applying to cases where transboundary movements are permissible.”**

The Basel Convention regulates the TBM of hazardous and other wastes by applying the prior informed consent (PIC) procedure.<sup>5</sup> In essence it requires that, before any transboundary movement of waste falling within the scope of the Convention may take place, the competent authorities<sup>6</sup> of the prospective states of import and transit are notified by the state of export about the intended movement(s) and have provided their consent. The PIC procedure provides the formal tools that allow governments to make informed decisions about whether to consent to, as well as to follow and monitor TBM of waste and verify if the waste is recovered or disposed of by licensed sites.

Over recent years, the Basel Convention has been amended and updated to tighten the rules and regulations governing transboundary movements of waste as well as to clarify its application to specific waste streams such as plastic or electronic wastes. As of December 2019, the so-called Ban Amendment entered

---

3 The full list of hazardous wastes under the Basel Convention are listed in Annex I and Annex VIII of the Convention. The categories includes wastes which are considered hazardous by national legislation according to article 1.1(b) of the Basel Convention.

4 The full list of categories of wastes requiring special consideration under the Basel Convention are listed in Annex II of the Basel Convention.

5 For an overview, see the Basel Convention leaflet at: <https://www.basel.int/Portals/4/Basel%20Convention/docs/pub/leaflets/leaflet-control-procedures-en.pdf>. For more detailed guidance, see: <https://www.basel.int/Implementation/Publications/GuidanceManuals/tabid/2364/Default.aspx>

6 Competent authority means the governmental authority designated by a Party to be responsible, within such geographical areas as the Party may think fit, for receiving the notification of a transboundary movement of hazardous wastes or other wastes, and any information related to it, and for responding to such a notification (Article 2 (6) of the Basel Convention).

into force.<sup>7</sup> This amendment provides that each Party listed in Annex VII shall prohibit all transboundary movements of hazardous wastes destined for disposal or recovery operations to states not listed in Annex VII. Annex VII includes Parties and other states that are members of the Organisation for Economic Co-operation and Development (OECD), the EU and/or Liechtenstein.

Further tightening the regulations governing plastic waste, as of January 2021 the Basel Convention introduced amendments that added two additional categories to the scope of the Convention. This clarified the plastic wastes that are considered hazardous and subject to the Convention's PIC procedure.

In 2022, there were additional developments related to the transboundary movements of e-waste. At its 10th meeting, the Conference of the Parties adopted amendments to Annexes II, VIII and IX to the Convention, thereby enlarging the control of transboundary movements of e-waste and clarifying the transboundary movements of e-waste subject to the PIC procedure. These changes will become effective as of 1 January 2025.

At the national level, the legal framework for the management of waste is laid down in domestic legislation, for example in waste management acts. This is often coupled with regulation and related strategies, such as a national waste management strategic plan which lays down the policies and governance to be considered. Waste management is an interconnected process requiring the involvement of a wide range of different interests, including:

- government at national and local levels;
- the private sector, which usually plays a major role and makes a major contribution;
- workers, including the informal sector;
- the community and its leaders;
- others, such as the general public, civil society/non-governmental organisations and research bodies.

Parties to the Basel Convention have obligations to take appropriate legal, administrative and other measures to implement it. This means that each Party has to take appropriate measures to transpose the Convention provisions into national law, regulations and other measures.<sup>8</sup>

---

<sup>7</sup> For further details about the Ban Amendment, please consult: <http://www.basel.int/Implementation/LegalMatters/BanAmendment/Overview/tabid/1484/Default.aspx>

<sup>8</sup> The Basel Convention has developed several tools and guidance materials to support Parties with the development and updating of national legislation implementing the Basel Convention provisions. Available at: <http://www.basel.int/Implementation/LegalMatters/LegalFrameworks/Tools/tabid/2750/Default.aspx>. Combating Waste Trafficking A Guide To Good Legislative Practices (UNODC 2022) provides model provisions and national examples to be considered by countries when developing national law. There is also the possibility of assistance through the Implementation and Compliance Committee. For further information please consult <https://www.basel.int/Implementation/LegalMatters/LegalFramework/Tools/tabid/2750/Default.aspx>

Parties can also make use of provisions in the Convention to exercise a right to define or consider additional wastes as hazardous under their national legislation and to prohibit or restrict transboundary movements of hazardous and other wastes. Stricter national legislation in one country than another may act as an incentive to export waste to countries that have less stringent waste management requirements, to reduce treatment costs.

There are also regional frameworks and laws such as the Waste Framework Directive and Waste Shipment Regulation in the EU.<sup>9</sup> Generally, national laws and regulations detail the conditions under which businesses and facilities dealing with waste can operate. Often this requires an application to be submitted to the competent authorities to seek approval to operate, and in particular to construct and register a facility. Depending on the nature of the activity, this may require a licence, a permit or a certificate of registration.

---

<sup>9</sup> Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives.

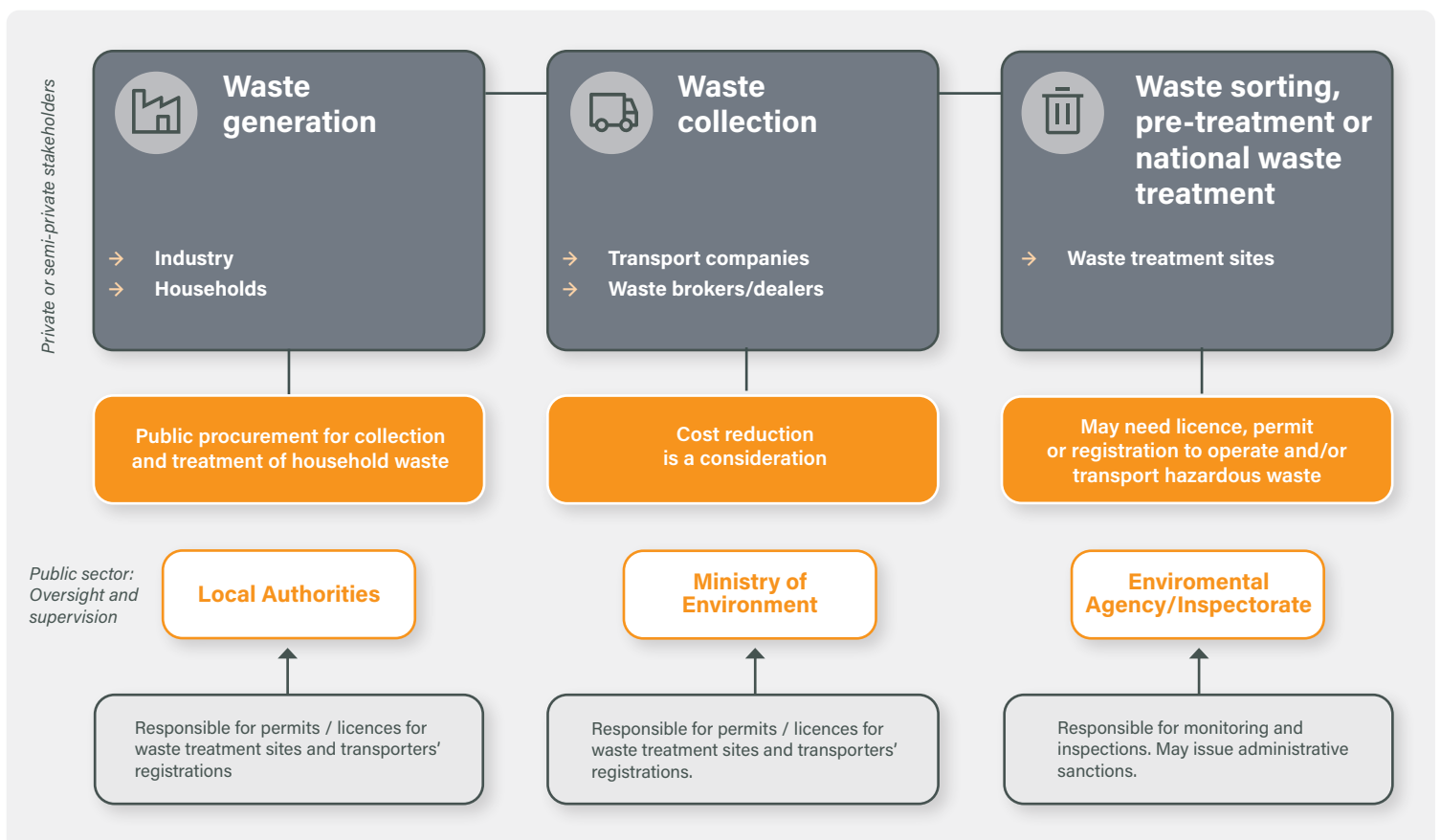
# 3 Assessing corruption risks related to waste management processes

The topic of how corruption affects waste management is practically unexplored in academic research. This section presents a first attempt to identify corruption risks along the waste management chain. The analysis involves:

- mapping out the management chains for domestic waste management systems and transboundary movements of waste;
- pinpointing where interactions between private and public sector actors generate possible risks.

## 3.1 Corruption risks in domestic management of waste

Figure 3 provides an overview of the actors that could be involved in the national waste management chain dealing with the waste generated by industry and households. The chain spans from collection, transport and pre-treatment activities such as sorting or washing to disposal.





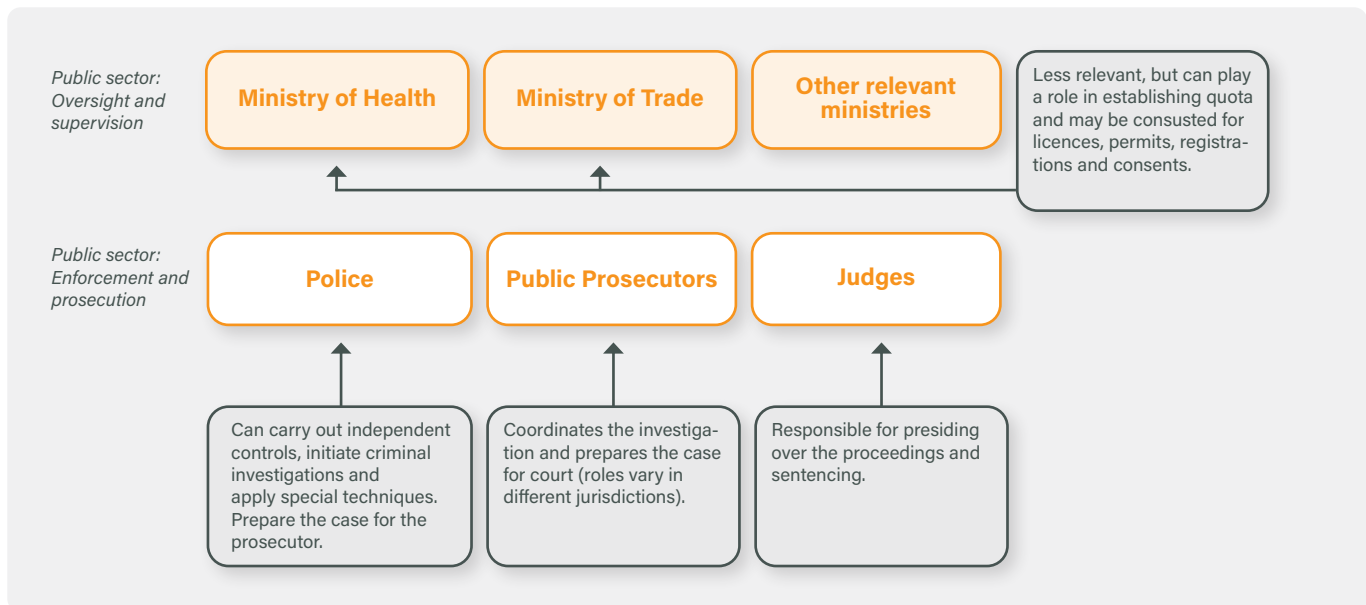


Figure 3: Typical stakeholders in the national management of waste and their responsibilities.

The complexity of managing waste locally is enormous. The volume of, for example, household waste is directly correlated to both urbanisation and economic development. The latter two are on the rise. The amount of waste that needs to be collected, transported and disposed of every day requires sizable investments in a variety of areas, ranging from technology and logistics to human resource management systems, planning and even political negotiations (e.g. the location of a landfill).

As mentioned, risks related to waste management can be linked to the intention to reduce costs and maximise profit. This may take the form of violations of rules and regulations, such as:

- inaccurate description of the processing of the waste, or of the waste itself, in the application;
- inaccurate information about the capacity of the installation or the input and output quality of waste;
- inadequate facilities to store, sort, clean or recycle the waste and any materials generated during the process;
- inadequate measures in place in case of incidents;
- inadequate control measures for landfilling of waste.

All of these may happen under the radar when regulations are weak and/or weakly enforced, for example because of a lack of funds for adequate monitoring as a result of waste management being a low political priority. Thus, the above potential risks do not constitute crimes of corruption but rather fraud and criminal behaviours when they are covered by domestic legislation (environmental, health or other).

However, it is critical to underscore that national waste management systems are highly sensitive and inherently vulnerable to political risks, especially in the case of household waste. As the World Bank report (Hoorweg e Bhada-Tata 2012) indicates,

**“... [municipal] solid waste management is almost always the responsibility of local governments and is often their single largest budget item, particularly in developing countries. Solid waste management and street sweeping is also often the city’s single largest source of employment.”**

Controlling waste management gives power over budgets and over communities. In fact, some sources refer to waste collection as a natural monopoly (Sousa V 2019) (Fátharta 2018). The logical implication is that national waste management systems are also prone to capture and corruption.

The waste market’s intrinsic corruption risks are compounded by the fact that the authorities often have limited resources to assess compliance with regulations by industry actors in the waste management chain. This, combined with the complexity of the waste trade, results in few detections of unlawful acts with waste. Thus, factors such as the high costs of properly managing hazardous waste and the varying waste management standards across countries, makes the waste management market and the global waste trade vulnerable to corruption.

Identifying corruption risks involves mapping the points along the chain where public-sector actors interact with private-sector actors. In addition, risks arise domestically in decisions about the allocation of public funds for waste management and where detection and investigations of wrongdoing occur.




Risk areas		
 Public-sector actors	 High-risk processes	 Goals of illicit actors
National authorities Local authorities Ministry of Environment Procurement entities	Issuing of permits for waste treatment sites Issuing of transport registrations Tendering of public contracts	Obtain permits or licences without necessary qualifications
Enviromental agencies	Monitoring and inspection	Avoid detection
Law enforcement agencies	Independent controls Receiving and investigating complaints Prosecuting cases	Avoid investigation, prosecution and sanctions

Figure 4: Potential risks in domestic waste operations.

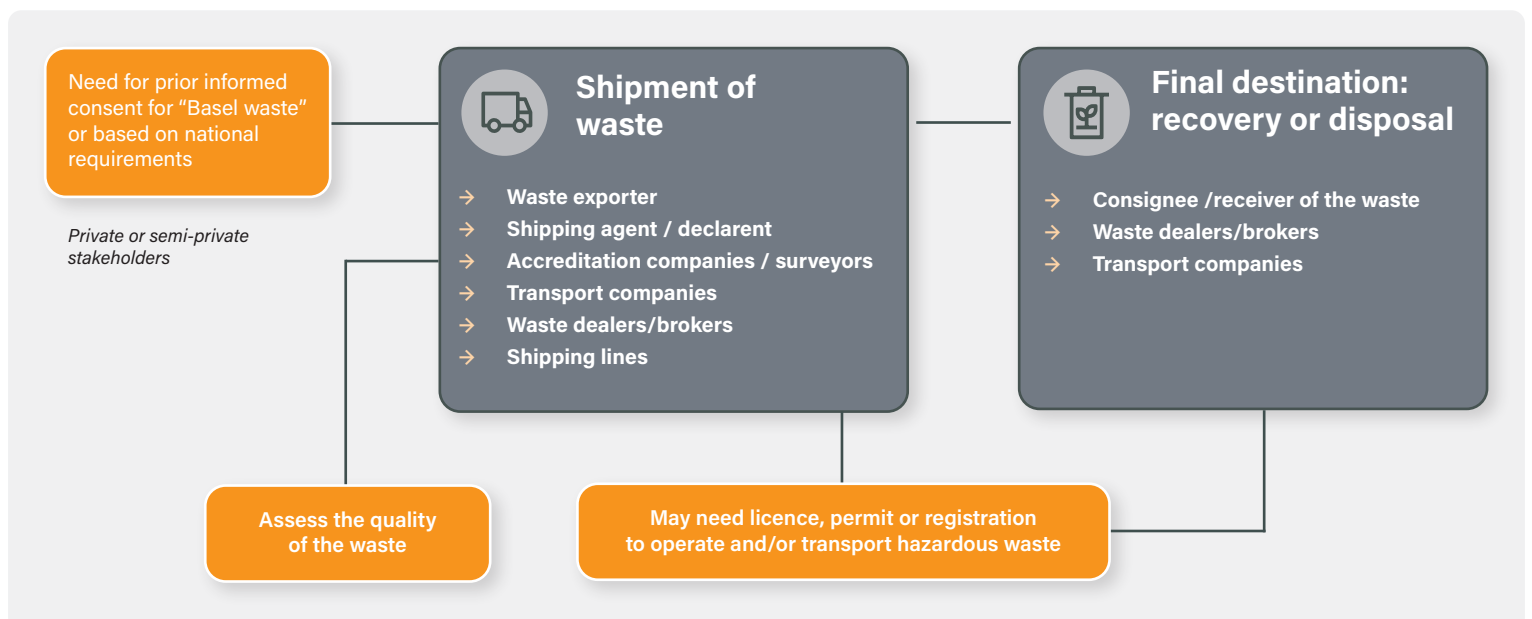
On the public-sector side, local, regional or national bodies might be involved depending on the governance structure of each specific country. Three categories are identified:

- Bodies issuing permits, licenses, registrations and contracts.
- Bodies in charge of oversight and supervision.
- Agencies responsible for enforcing environmental regulations and prosecuting suspected offenders.

A particular risk occurs in the procurement process for contracts for the collection and management of waste generated by households. The management of household waste is of special interest as this is a responsibility of local, regional or national governments. As the collection, sorting, recycling and disposal are in many cases outsourced, public procurement procedures are needed. Public procurement processes, especially those for substantive public works and high-value contracts, are particularly prone to corruption risks (Bauhr, et al. 2020) (Dávid-Barrett e Fazekas 2019), so this is likely the case for waste management contracts too. They can be particularly vulnerable to corrupt practices such as bribery, kickbacks, nepotism and favouritism. Corruption may be used to shorten procedures, to not publicise the tenders or to award the contract to a company or person that does not have the required expertise and/or has a close relation to the decision makers.

More generally, the incentives to reduce or avoid costs associated with dealing with waste in an environmentally sound manner may trigger operators or other stakeholders to use corruption. It could play a role in facilitating and enabling fraudulent waste trade, falsifying import/export certificates, forging monitoring and test results, issuing licenses and permits, allowing improper waste treatment, among others. In these cases, corruption can be considered an enabler for waste crime.

### 3.2 Corruption risks in transboundary movements (TBM) of waste



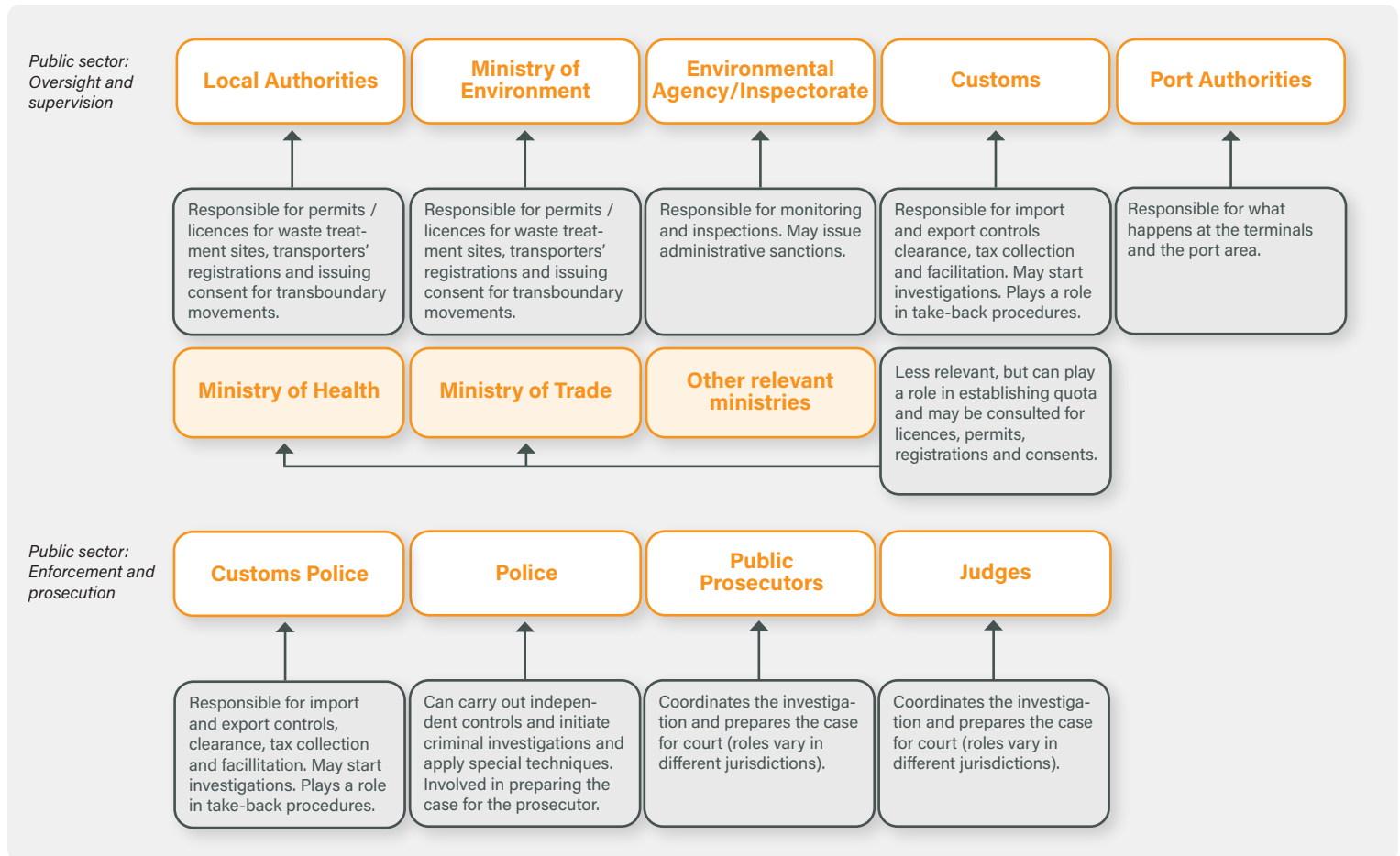


Figure 5: Typical stakeholders in the transboundary movement of waste and their responsibilities.

The global market for waste management and waste trade can be characterised as follows:

- Supply-demand principle and addressing externalities:** On the one hand, strong incentives to evade costs, extract rents and maximise profits often at the expense of significant externalities that generate high health and environmental damage. This can be viewed as the result of the market mechanisms of supply and demand with some elements of market failure. One of the causes of market failure is externalities that are not properly accounted (paid or compensated) for in the utility-maximising decision making of economic actors. In this case, in the waste management market, economic actors on their own will not account for the pollution and health impact of their actions (the externalities) and will keep making decisions that hurt the common good unless the state intervenes.
- Navigating a complex legal landscape:** On the other hand, the sharp contrast between increasingly strict international rules governing transboundary movements of waste coupled with a collage of national and regional legal regimes providing different levels of environmental and health standards. Shipping waste from countries that have stricter national standards to others with weaker rules is one of the risks arising from the disparities. Furthermore, the volume of waste being transported transnationally is so large that effective global monitoring remains an elusive goal.

The above considerations illustrate how incentives to engage in fraudulent actions exist in the transnational waste management market. Actors with the incentive to bypass the Basel Convention rules, which can be experienced as time consuming and costly, may exploit the monitoring gaps by falsely declaring the type of waste being shipped or by indicating incorrect destination countries. Another consideration that might sway hazardous waste generators away from following Basel Convention procedures is the risk of consent being denied if the receiving country or facility cannot prove to have the capacities and facilities to manage the waste.

Rules governing the transboundary movement of hazardous waste have become increasingly stringent, due to increased awareness of risks and concern to protect human health and the environment. This change in approach has led to significant increases in the costs of transactions and in some cases, prohibitions on transboundary movements of wastes (as in the case of shipping of hazardous waste from OECD to non-OECD countries following the Basel Ban Amendment). As with other illicit transnational flows however, without addressing the underlying market incentives and regulatory failures there is a high risk that the stringent international rules alone might not be effective in decreasing levels of illicit activities. Other measures to ensure a strong legal framework and effective enforcement would also be needed.

Furthermore, if authorities across different jurisdictions pay more attention to enforcing the rules governing the transboundary movement of waste, perpetrators may increasingly use bribery and other forms of corruption to continue their illicit activities.




<b>RISK AREAS</b>		
 <b>Public-sector actors</b>	 <b>High-risk processes</b>	 <b>Goals of illicit actors</b>
National authorities Local authorities Ministry of Environment	Issuing of permits for waste treatment sites Issuing of transport registrations Issuing of consent for transboundary movements	Obtain permits or licences without necessary qualifications
Environmental agencies Customs authorities	Monitoring and inspection Import/export control clearances Tax collection	Avoid detection for illicit transboundary movements Avoid taxes
Law enforcement agencies	Independent controls Receiving and investigating complaints Prosecuting cases	Avoid investigation, prosecution and sanctions

Figure 6: Potential risks in the transboundary movement of waste.

A general assumption is that corruption risks tend to arise where generators of waste and private-sector individuals such as brokers and transporters come into contact with public officials mandated with implementing and enforcing the regulations. Bribery is probably the most prevalent form of corruption, but other forms, such as political pressure to approve import licenses, have been documented (see Box 2).

**Private and semi-private companies** are involved in the generation, collection, pre-treatment and final treatment of the waste. They can also be involved in brokering, dealing in waste and the logistics around waste or quality checks. To operate in the waste management chain – be it in waste management sites, as brokers, dealers, storage agents or transporters – all private-sector actors normally need to be authorised by and registered with the authorities in their respective jurisdictions. The procedures around obtaining permits and licenses depend on various parameters, such as the type of waste, volumes, treatment techniques and location.

**From the public-sector side**, local, regional or national bodies might be involved, depending on the governance structure. Public-sector actors relevant to the transnational waste management value chain might be:

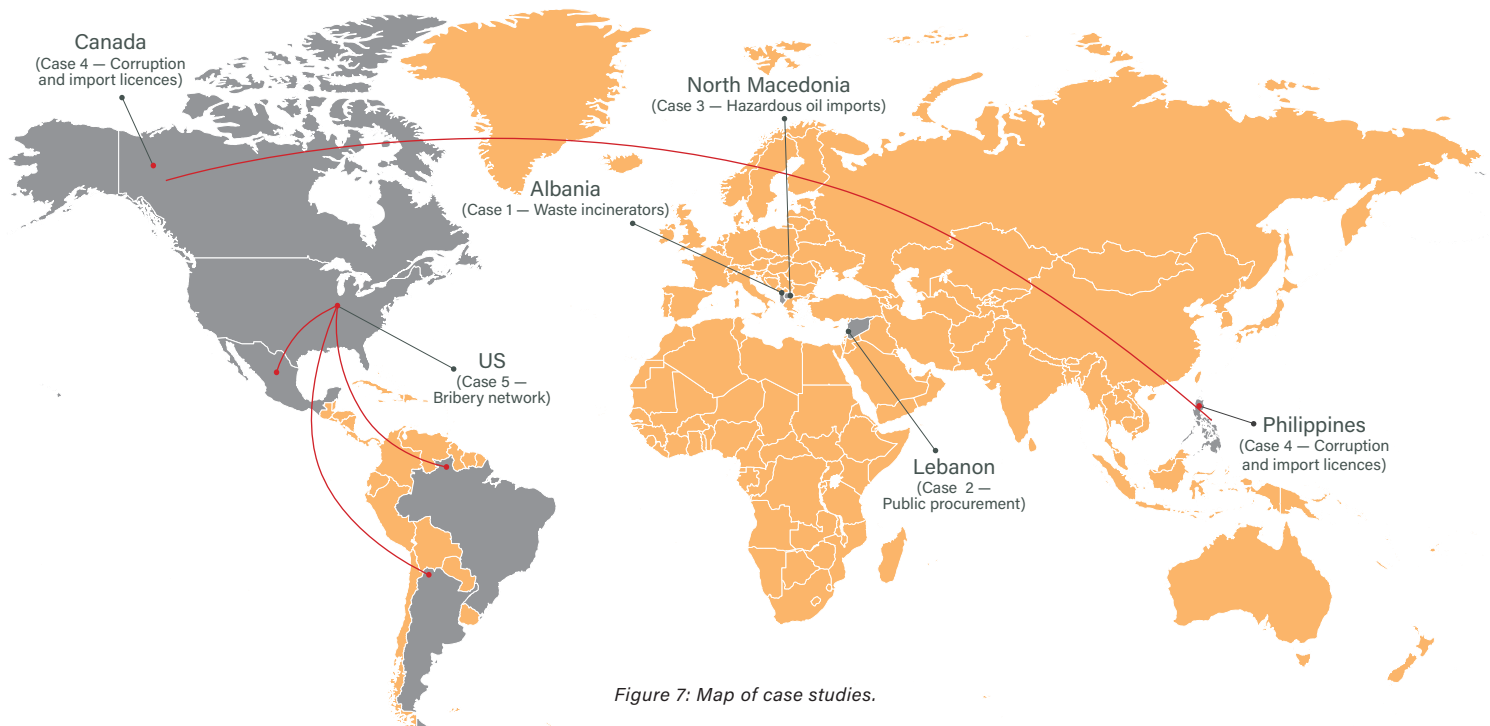
1. Bodies responsible for issuing permits, licenses, registrations and/or consent for the transboundary movement of waste. Examples are central and local national authorities, including Ministries of the Environment.
2. Bodies responsible for oversight and supervision, including monitoring and inspecting cargo, monitoring and validating import/export controls clearances, controls and tax collection. Examples are customs officials, border controls agents and environmental inspectorates.
3. Law enforcement agencies responsible for implementing independent controls, receiving and investigating complaints and reports of suspicious activities as well as prosecuting cases. Examples are police, anti-corruption agencies and prosecution authorities.

### **Political pressure to approve import licenses**

To export certain non-hazardous waste streams from the EU to an Asian country, a Certificate of Approval is required (also called a pre-shipment control). This procedure does not fall under the Basel Convention, as it concerns non-hazardous waste. Such a certificate is issued only if the quality of the waste meets the national standards of the importing country and is necessary for the customs clearance procedure.

The body issuing these certificates is an accredited testing, inspection and certification body. During a meeting with staff from one such body, it was confirmed that political pressure is sometimes used against them to approve certain certificate requests, even when the quality of the waste does not meet the national standards.

## 4 Case studies



### 4.1 The Albanian waste incinerators case

**This case concerns a corruption scheme in the construction and operation of two waste incinerators in the Albanian cities of Fier and Elbasan. The incinerator scandal involved high-level officials granting government contracts for waste incinerators to companies that never completed the plants. Investigations on a third site in Tirana is ongoing.**

#### 4.1.1 What happened?

In 2014, an inter-ministerial Integrated Waste Management Committee was established in Albania, led by the then prime minister and five deputy ministers (Politiko 2022). The establishment of this committee did not follow common governance procedures. Two deputy ministers raised objections, but these were dismissed by the other members of the Committee, according to an interview with a former high-level political actor (Int.19102022).

The committee declared a “state of environmental emergency”, despite a lack of legal or scientific basis (Politiko 2022). Under the state of emergency, a concession procedure started to build two incinerators in Elbasan and Fier under a public-private partnership. Former Prime Minister Rama explained that the incinerators would burn waste for energy recovery and therefore should be considered waste processing plants that generate energy (Muci 2022a).

The incinerators were presented as self-sufficient energy recovery plants: with a sufficient supply of waste for incineration, the money gained from selling the energy could be used to keep the incinerator operational. But due to over-capacity of the plants in Fier and Elbasan, a treatment fee was introduced, according to an interview with a source from an intergovernmental organisation (Int.18102022).

The construction of the plants was funded by public money. Statements about the exact costs for these plants vary. According to former Prime Minister Rama, costs were EUR 30.6 million for Elbasan and EUR 24.7 million for Fier (Muci 2022a). However, the above interviewee (Int.18102022) estimated that the incinerator in Elbasan costed EUR 21 million, in Fier EUR 28 million and in Tirana EUR 129 million.

According to a national specialist in legal matters (Int.12102022), there was no public announcement or competition for the concessions. Companies in Albania and abroad, including in offshore jurisdictions, were established just for the purpose of the concession agreements. The national procurement agency reviewed the procedures and announced the procedures were not correct. Their view was, however, dismissed by the inter-ministerial Integrated Waste Management Committee, according to an interviewee (Int.17112022). A parliamentary investigation commission also concluded that procedures had been violated in the drafting, approving and implementation of concession contracts (Sot.Com.AL 2022).

The same commission also concluded that the concession contracts benefitted companies that not only were closely related to each other, but also lacked experience and financial capabilities (Sot.Com.AL 2022). Investigative journalists revealed that one single person was behind the broad network of companies registered in Albania and offshore jurisdictions that won all the concessionary contracts for the incinerators (Bogdani e Likmeta 2020). This person had close links with the political ruling party at the time and had no experience in waste management, according to two interviewees (Int.18102022) (Int.17112022).

The parliamentary commission stated that public funds were funnelled abroad through a money laundering scheme involving fictitious companies (Sot.Com.AL 2022). This fact was also corroborated by an interviewee (Int.17112022), who stated that only 50 percent of the invoices could be justified in the Elbasan case, but that the government still paid all of them.<sup>10</sup> According to this same source, other red flags of corruption stem from the way the contracts were designed. In the Tirana contract there are, for example, no provisions linking payments to actual construction progress. The contracts are also written in euro, with the government responsible for the costs related to valuta conversions. And any change of ownership above 10 percent should be confirmed by the Ministry according to the contract, which demonstrates the close involvement and influence of the government on the management of the company.

---

<sup>10</sup> For example EUR 800,000 were paid for flight tickets.



This case of abuse of power has caused significant losses to the public coffers in Albania, which is already considered the country with a population at most risk of poverty in Europe (Taylor 2021). Large amounts of money were embezzled without delivering anything even remotely close to what was promised the waste incinerators would achieve. At the time of writing, the two incinerators in Elbasan and Fier operate under capacity, while the facility in Tirana only contains a landfill and not an incinerator. Environmental inspections and site visits are not carried out at the three locations, according to the interviewees.

The environmental impact also appears to be significant. As municipalities are now required to pay a treatment fee on top of the already existing waste management fee,<sup>11</sup> they have allegedly started to burn their municipal waste in open pits to reduce the volume of the waste (Int.18102022).

#### 4.1.2 Investigation and prosecution

The Special Anti-Corruption Structure (SPAK) – an independent judicial body mandated to investigate high-level corruption and organised crime – initiated an investigation into the Fier and Elbasan cases in December 2021 based on allegations of corruption and money laundering. Several individuals, including several former MPs and members of the government and state institutions, are currently either wanted, under arrest or being investigated (Taylor 2022). The former Minister of the Environment, Lefter Koka, was among the officials that were arrested and prosecuted (Muci 2022b).

The allegations included that the “principle of equality in public procurements” had been breached in the deals (Bogdani e Likmeta 2020). According to a press release issued by SPAK “Fier incinerator case: Request for trial” (SPAK 2022), they

**“submitted a request for the trial of the defendants in the Fier incinerator case. 21 individuals and 12 entities were charged with criminal offences ranging from abuse of office, active and passive corruption of high state officials or local elected officials, laundering of the products and proceeds of a criminal offence or criminal activity, abuse of duty, passive corruption of persons exercising public functions, fraud with serious consequences to the creation of fraudulent schemes in relation to value added tax. SPAK stated that the granting procedure was amended to favour the applicants for the incinerator.”**

In September 2023, the Special Court on Corruption and Organized Crime handed down a historic sentence. The former Environment Minister, Lefter Koka, was sentenced to six years and eight months of imprisonment on corruption charges related to the Fier and Elbasan concessions. As explained by BalkanInsight, he is “the highest ranking official to be sentenced for corruption in decades in Albania, where a sense of impunity cultivated for years” (Erebara 2023). The owner of the concessionary

---

11 The municipality of Durres was expected to pay EUR 45 per tonne to have the waste treated in Tirana.

company, currently on the run, was sentenced to eight years of jail time and a dozen other individuals involved in the scheme were also sentenced.

### 4.1.3 Burning money and public trust

The case illustrates a corruption scheme involving high-level political figures where power was abused to derail competitive procurement procedures, manipulate the specification of valuable public works contracts and execute sizable fraudulent payments to unqualified and non-performing companies, likely set up just for the purpose of winning the contracts, all at the expense of public funds.

The corruption mechanism was orchestrated by exploiting the highest levels of political authority, as the issuance of an unsubstantiated environmental state of emergency indicates. The abuse even went as far as abolishing a whole national waste management strategy that was built on EU principles and with support of international donors to open the door to the corruption scheme.

High-level political interference also enabled the instrumentalisation of the public procurement system to favour companies linked to the perpetrators. An entire infrastructure consisting of local and offshore companies was built to facilitate the corruption scheme. The same high-level political interference neutralised – at least at first – the instances where formal controls, implemented by the national public procurement entity and by parliament, found and reported anomalies with the contracting and execution of the waste incinerator projects. At the end, however, the perpetrators were mostly caught and sentenced by the country's highest independent anti-corruption institutions.

The impact on waste management is clear: the amount of waste being recycled has decreased. There is also no separation of different waste streams at the source, as the strategy was designed for all the waste to be incinerated, which means that the environmental impact can be assumed to be considerable.

## 4.2 The Lebanon case: Corruption and public procurement

**A private company allegedly close to several members of the government was awarded a contract for waste management. Despite allegations of poor performance with severe environmental and health consequences, the government re-awarded the contract three times at exorbitantly high rates. Presumably, the lack of a waste management strategy and an overly centralised system contributed to the alleged corruption scheme in this case.**

### 4.2.1 A long and sorry story

The Lebanese waste management crisis goes back to 1994. The Lebanese Council for Development and Reconstruction contracted a private waste management company, to collect household waste in Lebanon's capital Beirut and Mount Lebanon (The Centre for Social Sciences Research & Action 2016). This contracted company (henceforth "the contracted company") was an international waste management and recycling company operating internationally and mandated to collect, sort, recycle and dispose of the waste at a landfill.

In line with its bid of USD 14.99 per tonne, the contracted company is said to have been paid around USD 3.6 million in the first year (Nash 2016). In relation to the procurement procedures, the drafting of the terms of reference and the contract opened opportunities for fraud and corruption (Int.16092022). Further raising red flags around the procurement of those contracts, the individuals leading the contracted company were said to be close to the then Prime Minister, Rafik Hariri (Young 2015). It should be noted that, at that time, local municipalities were not mandated to handle their waste, nor was there a national waste strategy regarding collection and disposal in place according to an interview with an anti-corruption advisor (Int.30082022).

Media reports suggest the contracted company's performance was significantly deficient. For instance, in 1997, the Lebanese government gave it permission to open a temporary landfill in Naameh that would receive waste from Beirut and Mount Lebanon, until a more permanent solution was found to the waste crisis (Moughalian 2016). During its lifespan, Naameh received around 3,000 tonnes of solid waste every day, exceeding the amount for which the landfill was designed. Indeed, the absorptive capacity of the Naameh landfill was reached 10 years earlier than planned. This could be because minimal sorting and recycling appear to have taken place; instead, most of the waste was apparently deposited untouched into the Naameh landfill (Int.16092022).

The deadline for the closure of the landfill was deferred several times despite the protests of residents because the government could not agree on a long-term waste management plan due to political deadlock. The Naameh landfill was finally closed on 17 July 2015.

From 1994 until 2015, in spite of questionable performance, the contracted company had its contract renewed three times by the Council of Ministers without an open tender (Chaaban 2016). In the contract, payment per kilogram was arranged, which is not necessarily uncommon. This could however be an opportunity to falsely increase the weight of the waste to claim higher fees. While these claims cannot be verified with empirical data, it is indicative that the operation started with 800 tonnes of waste per day in 1994 and grew to 2,600 tonnes per day in 2015 (Chaaban 2016). The contracted company's revenues have been estimated at more than USD 170 million per year, which would be about USD 150/tonne, one of the highest rates in the world (Chaaban 2016).

With every contract renewal, the collection and processing fees were increased and paid for by a taxpayer-funded Independent Municipal Fund (Jihad Farah

2019), despite these funds supposedly being under the control of local authorities. The excessive fees may have depleted funds meant for local development, thus denying citizens of Beirut access to better services and infrastructure.

In July 2015, the Lebanese government opted not to renew the contracted company's contract, but to open bids for new waste removal partners (The Centre for Social Sciences Research & Action 2016). In the meantime, uncollected garbage began to pile up in streets across Lebanon.

Activists noted that the list of bids consisted of firms connected to politicians in power asking for exorbitant rates (The New Arab 2015). Following increasing social pressure from civil society, the list of tenders was rejected, and the cabinet referred the problem to a ministerial committee to look for alternatives. An alternative solution was presented in September 2015. The government then approved a waste management plan that included decentralising waste management duties to local municipalities, renewing contracted company's contract for 18 months and reopening or converting several landfills (Jihad Farah 2019) (Abu-Rish 2015) (Agence France - Press 2015).

Though welcoming the government's commitment to decentralise waste management, activists criticised the proposed measures for failing to consider the environmental consequences of re-opening or upgrading landfills. The crisis continued into 2016, whereby new plans were proposed but rejected, protest marches continued, and waste was still not being properly collected and treated. The Naameh landfill permanently closed in May 2016 (The Centre for Social Sciences Research & Action / Lebanon support 2016). However this does not put an end to the broader concerns regarding the transparency of local waste management contracts. There have been other similar cases of alleged corruption showing that the problem is not about only one contract but much broader (Saad 2019).

A report by SWEEPNET (Doumani 2014) has identified various challenges in Beirut and Mount Lebanon concerning solid waste management practices:

- **Lack of an adequate legal framework governing waste management**, which among other things means that there are unclear responsibilities between the various ministries involved at the national level and the municipalities. Monitoring and enforcement of sanctions are practically non-existent. The vacuum created by the absence of an adequate legal framework weakens the role and responsibility of the Ministry of Environment as a regulatory agency and also contributes to making it less accountable.
- **Limited technical, managerial and environmental expertise** in public agencies responsible for waste management (for example to draft a proper contract or to review tenders), compounded by a lack of qualified and motivated human resources.

Both aspects can be considered enabling factors generating opportunities for discretionary decision making involving corrupt transactions.

These observations were partly corroborated by an interviewee (Int.3008022), who held the same view about the lack of clear procedures for licencing and selecting landfill sites. The interviewee perceived that waste management practices are likely in the hands of political elites. In addition, the interviewee pointed to the lack of accountability for contract writing, which is further problematised by the involvement of many different governmental agencies. Related to monitoring, the interviewee claimed that the understanding and control of environmental requirements are low and government officials are allegedly paid to turn a blind eye to the lack of sorting and recycling of the waste.

#### **4.2.2 Skewed procurement processes**

This case illustrates how corruption schemes driven by collusive business and political elites can be operationalised, primarily by abusing public-sector contracts. Favouritism and conflicts of interest can influence the entire contracting cycle, from the procurement to the implementation stage. The alleged abuse of discretionary power in this case began with the procurement process, with the tendering documents allegedly being drafted under questionable circumstances (according to interviewees) and where conflict of interest considerations failed to be adequately identified and managed. This situation can be described akin to a case of state capture.

Later on, in spite of severe underperformance, several renewals of the contract were made through direct award. The contracts also incorporated tailor-made contract specifications to enable the generation of exorbitant revenue.

In Lebanon, the alleged corruption scheme was to some extent enabled by the lack of an adequate legal framework and a lack of transparency. No national waste strategy existed when the deal took place and waste management responsibility was mostly centralised, thus making it simpler to exercise discretion throughout the public services contracting cycle. Public contracts should be in line with the relevant legal framework; because this was lacking, the contract could be customised to the situation.

The economic and social costs of alleged corruption schemes such as that illustrated by this case study are significant. This alleged scheme allowed funds destined for local-level development projects to be diverted to fund overpriced waste management contracts at the expense of the local population.

Furthermore, this case also illustrates how corruption in government-led waste management schemes might lead to significant damage to the environment. Waste was badly mismanaged in that it was not sorted and recycled but rather simply dumped into landfills, which results in pollution, greenhouse gas emissions, concentration and growth of disease-carrying vectors and rodents. Instances of waste being directly dumped into the Mediterranean have also been reported (Saad 2019).

## 4.3 The North Macedonia case: Import of hazardous oil for heating

**This piece of investigative journalism illustrates how corruption might facilitate the import of hazardous substances into a country. Corruption in the form of high-level political influence can play a role in bypassing inspections or stifling their results.**

### 4.3.1 Dirty oil

A report by the Organized Crime and Corruption Reporting Project (Cvetkovska, Ilieski, et al. 2021) alleges that hazardous waste oil (heavy fuel oil) from the EU was illegally shipped to North Macedonia by a local company (henceforth “the importing company”). This report led the Macedonian government to investigate and impose fines on the importing company and six other companies for similar irregularities (Cvetkovska 2021).

This type of heavy fuel oil is not allowed to be used in the EU. By selling low-quality heavy residual fuel oil as fuel with high viscosity, the company is presumed to have been able to generate millions of euros in profit when it imported thousands of tons of residual oil every month. According to the report, the annual turnover increased from EUR 484,000 in 2017 to EUR 13 million in 2019.

The report alleges that the oil came from a Czech refiner and was resold by a Bosnian energy company. An unnamed senior customs official stated that the deal to import the residual fuel oil involved people who are linked to organised crime groups and corrupt government officials. The importing company was allegedly helped by a Macedonian businessman and politician, as two companies associated with him, bought large quantities of oil from the importing company (Environment South East Europe 2021).

The fuel oil was used for heating by large companies (Cvetkovska, Ilieski, et al. 2021). Through the public procurement system, the oil also ended up as heating oil in the boilers of the Ministry of Defence, Skopje’s public transport authority as well as in seven state hospitals and maternity hospitals.

According to an article by Investigace (Holcová 2021), the first case occurred in December 2018. 25 oil wagons with heating oil arrived for inspection at the North Macedonian Trade Inspection. Following a tip-off, the North Macedonia’s State Market Inspectorate, which is tasked with inspecting oil and oil derivatives before they enter the market, stopped the trainload of oil and checked the quality. It turned out the samples had an abnormal viscosity for normal heating oil. An involved official said it was already clear from the sight that it was not ordinary heating oil. The importing company was then banned for six months from importing this type of heating oil.

In 2019, the issue repeated itself (Holcová 2021). The trade inspectorate received a warning that the importing company was importing fuel oil again. The heating oil was supposed to come from Bosnia, but the documented certificates indicated another country of origin. Other documents, such as invoices, also did not provide clear information.

The private laboratory that tested the samples wrote a report on their harmfulness, stating that the maximum permitted limit of ash residue and sediment was exceeded. However, sizable amounts of residual fuel oil did make it into the country's supply chain.

According to an interviewee (Int.30092022), certain customs units that fall under the direct order of the customs head were made aware of the imports of the oil and were instructed to clear them.

#### **4.3.2 Conflicts of interest**

In the reporting of this case there are suspicions of a corruption plot driven by powerful individuals where a strong conflict of interest – as individuals are allegedly involved both as businesspersons and members of the political elite – resulted in what has been described as an abuse of power in the pursuit of profit (Cvetkovska, Macedonian Government Sanctions 7 Firms Following OCCRP/IRL Investigation 2021). The allegations suggest that political power and connections had been instrumentalised in order to taint public procurement processes, override controls and monitoring mechanisms and avoid sanctions.

This situation was presumably facilitated by a lack of effective inspections by the public administration, weak record keeping, weak enforcement in the exporting, transit and importing countries, and a lack of resources. However, such governance challenges are not enough to explain the situation. There were indeed monitoring activities that detected anomalies, but they were not acted upon.

The environmental and health impacts are difficult to accurately estimate but can be assumed to be sizable. After all, contaminated heating oil was used in oil-fired power plants in schools, hospitals and government bodies across North Macedonia, without proper exhaust gas purification systems and filters in place.

The report also mentions that this case seems to be part of a growing trend, whereby more and more hazardous substances are being exported to the Balkans to avoid the stricter rules for their management in the EU.

## 4.4 The Canada – Philippines case: Corruption and import licences

**Officials from environmental and customs authorities in the Philippines were charged with corruptly facilitating the import of hazardous waste. This alleged case of corruption exemplifies how bribes might be used to escape regulations and controls at ports.**

### 4.4.1 Opening Pandora's box

From June to August 2013, 55 sea containers arrived from Canada at the International Container Port in Manila, the Philippines. The consignments, declared as recyclable plastic scrap materials, were exported by Chronic Incorporated in Ontario, Canada. The consignee in the Philippines was Chronic Plastics. A second batch of 48 containers was sent by the same company from late 2013 to early 2014 (Bueta 2020). As the containers remained unclaimed by the receiver, customs officers opened 18 of the containers and discovered that the load was not plastic waste but mixed hazardous waste, including household waste and diapers. According to the Basel Convention and national waste legislation, these waste streams were not allowed to be imported by the Philippines.

Based on the findings by customs, cases were initiated against the owner of the Philippine company, Chronic Plastic, for allegedly violating the Tariff and Customs Code of the Philippines and the Toxic Substance and Hazardous Wastes and Nuclear Wastes Control Act of 1990 (Rappler 2014). The latter prohibits the importation of hazardous waste to the Philippines. The company's licenced customs brokers were also charged.

When the case was brought for prosecution, the court ruled that Chronic Plastics should bear the costs of repatriating the waste, which is in accordance with the provisions of the Basel Convention. Media outlets later revealed that the company had long ceased operations and could not be located (GMA News Online 2017).

In 2019, five years after the illegal waste was discovered, and after a lengthy diplomatic discussion between the Philippines and Canada, 69 of the containers were eventually repatriated (Flores 2019), with the Canadian government shouldering PHP 10 million (USD 177,000) in costs (CNN Philippines 2019). Twenty-six of the containers had previously been disposed of in a private landfill in Tarlac in the Philippines. Environmental groups have stated that the remaining eight containers are unaccounted for (Orejas 2019). As it is unclear what happened with the contents of these eight containers, an environmentally sound treatment of the waste cannot be guaranteed.



#### 4.4.2 Bribery scheme?

In 2018 the Office of the Ombudsman in the Philippines found probable cause to charge an official of the Department of Environment and Natural Resources (DENR) with mishandling the imports (Marcelo 2018). In a statement, the Ombudsman said the DENR official, the Undersecretary for Field Operations, violated the Anti-Graft and Corrupt Practices Act (Office of the Ombudsman (Philippines) 2018). The statement revealed that the DENR concluded that the waste was not recyclable and was illegal due to a lack of import clearances. A high-level DENR official nonetheless issued a Registry Certificate for the Importation of Recyclable Materials Containing Hazardous Substances, despite the lack of details in the importer's Registry Sheet. DENR also issued six import licences to Chronic Plastics despite an existing notice of violation for the importation of heterogeneous and assorted plastic materials that violated a DENR order.

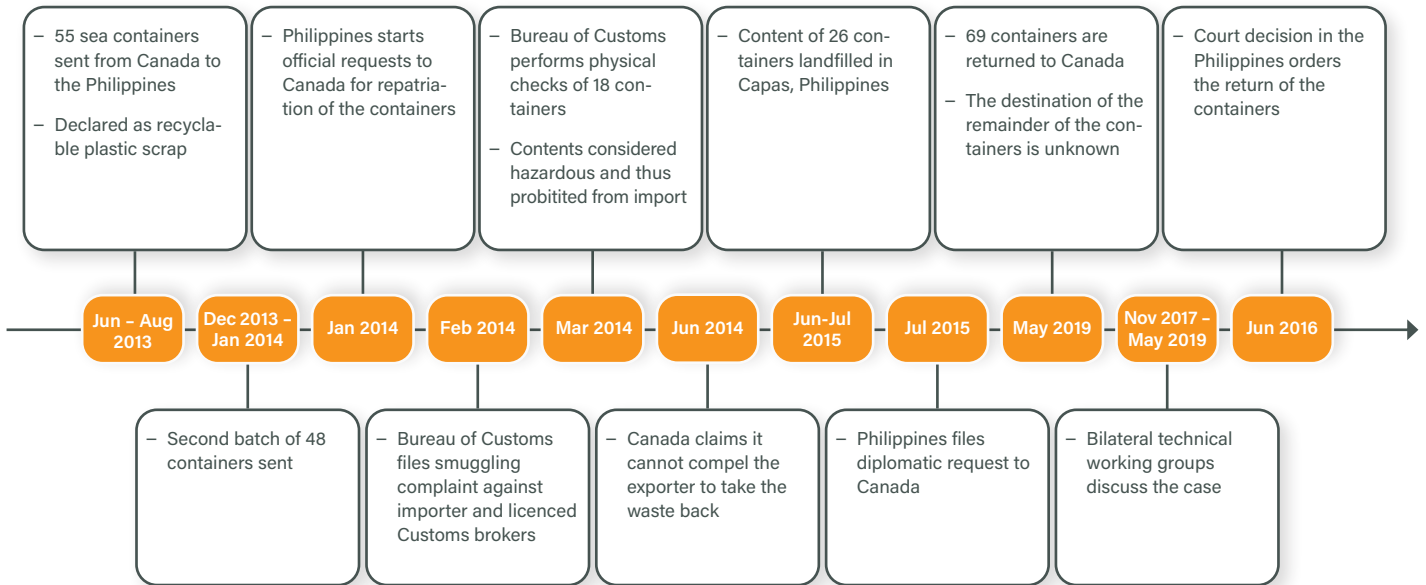
In addition, the Philippines' National Bureau of Investigation (NBI) filed graft and environmental crime complaints in 2020 against eight officials from the DENR and Bureau of Customs (Buan 2020). After a nine-month investigation, the NBI found the eight responsible for issuing import clearances for the import of scrap plastic materials despite failing to ascertain that the company can recycle the materials (Pulita 2020). NBI investigators said customs examiners and appraisers erred for having allowed the goods declaration to proceed to the next stage despite its clear violation of environmental import requirements.

The NBI noted that the import clearances for recyclable materials must be issued 30 days before importation. In this case, the importation clearance was issued after the arrival of the shipment. Upon inspection and finding the importation to be unsegregated, the NBI said the customs officials should not have allowed the issuance of another import clearance. Instead, they had merely imposed a fine of PHP 50,000 (USD 885) for a notice of violation.

Based on an interview with a national researcher (Int.04112022), the court files only referred to four customs officers charged with aiding and abetting the illegal import of the waste. Their case is still pending at the court. The charge against the four officers of the Environment Department was dropped as not enough evidence was collected to prove the case.

According to another interview with a general legal counsel (Int.07112022), at the time of the import of the containers, import declarations were mainly done manually, which allows discretion. According to this interviewee, each step in the customs clearance process requires some form of bribery ranging from PHP 100 to PHP 100,000 (USD 1.78 – USD 178). This interviewee considers that bribing one customs officer is often not enough, as clearances involve a chain of customs officers.

**Timeline: Illegal import case**



**Timeline: Corruption investigation case**

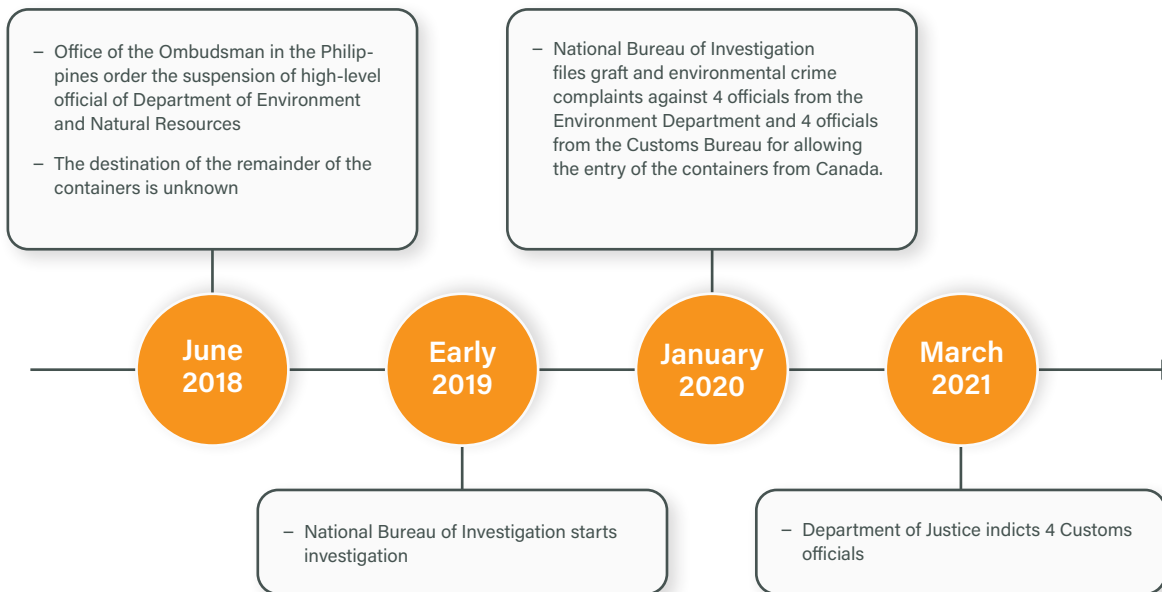


Figure 8: Timelines in the Canada-Philippines case.

**4.4.3 Borders: a high-risk area**

This case shows the risk that corruption can be used to arrange for trans-boundary movements of hazardous waste while omitting the necessary prior informed consent (Chris Tollefson 2019). From the interviewees’ perspective, it is possible (though not at all proven) that the bribery spanned across ports, customs and environmental regulatory institutions in the receiving country. Weak systems within customs (e.g. manual import declarations), the complexity of rules and procedures governing the import, export and quality controls of waste contribute to the corruption risks.

Although it took years of political negotiations, some of the containers with the illegally shipped waste were eventually returned to Canada. A positive outcome of this case was that customs officers in Philippines were more informed and aware of the risks of illegal imports of waste. Their increased alertness may have contributed to two subsequent successful interceptions of illegal imports of waste, which were returned to the country of origin in accordance with the provisions of the Basel Convention.<sup>12</sup> In this sense, one alleged case should certainly not lead to a conclusion of widespread dysfunction among customs authorities.

More broadly, this case seems to confirm what has already been stated numerous times about shipping and ports being high-risk areas for corruption. However, the seriousness of this risk is difficult to ascertain. The desk research didn't identify other similar cases based on publicly available information. In addition, it should be noted that a lack of capacity might be a bigger issue than lack of integrity: customs officers in many countries are not equipped to handle the complexity of rules and procedures regarding the import and export waste and the quality standards of waste.

## 4.5 The Stericycle case: Transnational bribery network

**A US-based waste management company entered into a Deferred Prosecution Agreement with US authorities and paid more than USD 84 million to close bribery investigations in Brazil, Mexico and Argentina. Millions of dollars of bribes had been paid to public officials to obtain or maintain public contracts. A weak compliance system inside the waste management company contributed to this widespread and systematic corruption scheme.**

### 4.5.1 Systematic bribery to gain lucrative contracts

Stericycle Inc. (Stericycle) is an international waste management company headquartered in Illinois, USA. The activities of the company focus primarily on medical waste, and partly on industrial and maritime waste, as well as document destruction.

From at least 2011 to 2016, Stericycle paid millions of dollars in hundreds of bribe payments to obtain and maintain business from government customers in Brazil, Mexico and Argentina, as well as to obtain authorisation for priority release of payments owed under government contracts (Standford Law School 2022). The improper payments were not accurately reflected in Stericycle's books and records, and Stericycle failed to have sufficient internal accounting controls in place to detect or prevent misconduct. In all, Stericycle earned profits of approximately USD 21.5 million based on this corruption scheme.

---

<sup>12</sup> One case relates to the interception of a container with e-waste coming from Hong Kong (see: <https://ipen.org/news/philippines-returns-illegal-plastic-and-e-waste-shipment-hong-kong-china-groups-insist>). The second case refers to the illegal export of waste from South Korea to the Philippines (see: <https://ipen.org/news/philippines-returns-80-containers-south-korean-garbage>).

The company maintained false books and records to conceal corrupt and improper payments made by its subsidiaries in Brazil, Mexico and Argentina to officials at government agencies and instrumentalities<sup>13</sup> aimed at obtaining and retaining business and securing improper advantages in connection with providing waste management services.

An executive at Stericycle's Latin America division directed employees to pay bribes, typically in cash, that were calculated as a percentage of the underlying contract payments owed to Stericycle from government customers. In all three countries, the co-conspirators tracked the bribe payments through spreadsheets and described the bribes through code words and euphemisms, such as "CP" or "commission payment" in Brazil; "IP" or "incentive payment" in Mexico; and "alfajores" (a popular cookie) or "IP" in Argentina (US Justice Department 2022).

According to the court documents, to generate funds for the bribe payments, sham service contracts were used to provide debt-collection services that were never used. False or inflated invoices were added to the books to conceal the bribe payments and make illicit payments appear as legitimate business expenses. The bribe payments were made with the knowledge, authorisation and at the direction of the executive level.

In 2022, as a result of an investigation by the Federal Bureau of Investigation and the Securities and Exchange Commission, Stericycle entered into a three-year Deferred Prosecution Agreement with the Department of Justice (Deferred Prosecution Arrangement between Stericycle and the USDoJ 2022), in connection with the filing of criminal information charging the company with two counts of conspiracy to violate (1) the anti-bribery provision of the Foreign Corrupt Practices Act (FCPA), and (2) the FCPA's books and records provision.

In total, the company was ordered to pay more than USD 84 million to resolve parallel investigations by authorities in the US and Brazil (Department of Justice 2022). Stericycle was ordered to pay USD 52.5 million in criminal penalties, USD 28 million to the Securities and Exchange Commission in civil penalties and disgorgement, and approximately USD 9.3 million to Brazilian authorities.

Stericycle has agreed to continue to cooperate with the Department of Justice in ongoing or future criminal investigations relating to the corruption case, as part of the Deferred Prosecution Agreement. Stericycle also agreed to further develop its compliance programme. Part of this agreement is that the company will retain an independent compliance monitor for two years, after which a period of three years of self-reporting for will follow.

#### **4.5.2 The importance of compliance and foreign bribery legislation**

The findings in this case of transnational corruption show complex and systematic patterns of bribery related to procurement and contracting. It was a bribery network organised by executives in the firm to gain market advantages

---

<sup>13</sup> An instrumentality is a non-governmental agency that acts independently but whose obligations are backed by the government because of its role in providing a public service.

and increase profits. The company's employees put in place sophisticated structures and concealment methods to enable large and regular illicit payments to government officials to secure profitable contracts in the waste management sector.

This case shows the importance of strong and transparently enforced compliance mechanisms on the part of waste management companies. For example, the fact that it was possible to circumvent the company's accounting system indicates that vendor risk management procedures were not in place. The court file further revealed that up to 45 different vendors were accounted for in Mexico that provided no legitimate goods or services. It was also possible to frequently withdraw cash, which suggests an absence of financial controls. Lastly, the lack of internal whistle-blower mechanisms to report this bribery scheme can be mentioned.

Importantly, this case also highlights the role that laws in the jurisdiction of the business actors can play in detecting and enforcing sanctions for misbehaviour abroad. The fact that the US Foreign Corrupt Practices Act has extraterritorial reach – i.e. it applies outside of the US – is helpful in prosecuting international cases such as these.

The case shows that waste management is a lucrative industry and suffers from similar risks to other industries providing public services. It demonstrates that waste management companies need good compliance systems to prevent such risks.

## 5 Conclusions and takeaways

Like other large industries and public services, the waste management sector is not immune to corruption risks. Large budgets are involved, and complex procurement processes and waste trade flows can lead to opportunities for abuse for personal gain where oversight is insufficient.

However, the role that corruption plays in undermining proper waste management is far from clear. It is also challenging to estimate the scale of corruption related to waste management in monetary value. This report aimed merely to explore the issue by presenting relevant case studies and set the foundations for further research needed in this space. It is a first step to paving the way for better awareness and action to address corruption risks in the waste management sector.

The selected case studies illustrate various patterns of corruption in the waste management sector, exploring what has been until now an overlooked governance issue.

### 5.1 Importance of clear legal frameworks and governance mechanisms

The fact that inadequate laws and regulations and weak controls enable waste crime and corruption is illustrated by the Lebanon, North Macedonia and Philippines cases. Conversely, the Stericycle case shows how **strong and well-enforced legal frameworks** with extraterritorial reach, such as the US Foreign Corrupt Practices Act, can have an important impact in fighting corruption by large companies. Where legal frameworks on corruption are unclear, light on sanctions and not well implemented, they neither deter nor properly punish perpetrators. However, strengthening laws is not necessarily enough: high-level collusion can overcome legal constraints and override formal control mechanisms.

The Lebanon case has been described by commentators as examples of **state capture**. State capture is understood as:

**“a type of systematic corruption whereby narrow interest groups take control of the institutions and processes through which public policy is made, directing public policy away from the public interest and instead shaping it to serve their own interests” (Dávid-Barrett 2023).**

It is a globally occurring pattern whose negative impacts are even visible in everyday areas like waste management.

More generally, the case studies confirm that the waste sector, like other sectors relying on **public procurement**, is prone to grand corruption schemes. In addition, the transnational Stericycle case study illustrates the possible extension of local corruption risks: transnational bribery networks can enable the systematic manipulation of local public procurement processes across multiple countries.

## 5.2 Costs and impact of waste management corruption

Although very challenging to calculate objectively and accurately, corruption in the waste management sector leads to serious impacts: damaging and polluting the environment, affecting soils, watercourses and ecosystems but also human health (directly or indirectly). This report did not aim to provide a precise assessment of the environmental damage caused by cases of corruption in the waste management sector. However, the cases give a sense of how corruption can enable improper waste management and thereby damage the environment and human health. For instance, illegally imported waste facilitated by bribery ends up in unknown destinations, perhaps in open and uncontrolled landfills. It may be burned openly or used inappropriately as fuel, leading to air pollution.

Another negative impact of corruption in the waste management sector is the way it can deeply undermine environmental governance and standards. Undue influence can lead to waste regulations and policies being changed to waste management practices less protective of the environment to benefit a few. An example is abandoning separate collection and recycling strategies towards waste incineration without proper energy recovery.

There are also other impacts related to a loss of tax revenue, negative impacts on local economies and a loss of trust in government. Even in cases like the Stericycle bribery scandal, where no information was found on the environmental impact of the schemes, this kind of corruption still has a negative impact in the countries affected. When a multinational company uses its economic advantage to win undue influence in a market, it unfairly restricts the opportunities of other players, especially local ones. This limits the growth of local and sustainable businesses in the waste sector.

Finally, illegal waste trade also has potential economic impacts through lost tax revenue and costs, for example where states have to bear the costs of managing or repatriating illegal waste shipments.

## 5.3 Patterns of corruption related to waste management

The conclusions of this study are limited to a first exploration of the challenges. However, an initial typology of corruption patterns emerges, following strategic steps in the waste management chain.

Steps	Main forms of corruption
1 - Design of waste management procedures and policies	<ul style="list-style-type: none"> <li>– Undue influence</li> <li>– State capture</li> </ul>
2 - Procurement process/public contracts	<ul style="list-style-type: none"> <li>– Bribery</li> <li>– Nepotism and favouritism</li> </ul>
3 - Inspections (waste sites, ports and border controls, etc)	<ul style="list-style-type: none"> <li>– Bribery</li> <li>– Undue influence</li> <li>– Collusion</li> </ul>

Figure 9: Emerging typology of corruption patterns related to waste management.

### 5.3.1 Policies and procedures

Corruption can undermine the good functioning of the waste management sector at its core. In extreme cases, good governance becomes practically impossible when the design of waste management procedures and policies is compromised by undue influence. The rules are bent from the start to create conditions that benefit certain individuals or companies. When this influence is systematic, one can talk of state capture. This is the situation described by various commentators on the Lebanon case.

### 5.3.2 Procurement

The most common challenge relates to the procurement phase and allocation of public contracts. Where government bodies are responsible for the collection and management of household waste, corruption can mean officials favouring a company or consortium they have connections with and even fully suppressing competition during the announcement and procurement phase to allocate the contracts. The types of corruption observed involve bribery, nepotism and clientelism. The Lebanon, Albanian and Stericycle cases illustrate this.

In relation to the procurement phase, corruption is facilitated if government officials involved in tendering and designing contracts lack the skills and knowledge to properly design these processes and documents. Further, the case studies show a pattern related to the use of bribery networks to receive permits or permission for waste treatment or management operations without having all the requirements in place.

### 5.3.3 Inspections

Inspections are another critical aspect of the waste management chain. Corrupt practices enable perpetrators to avoid inspections at waste sites and borders. This can allow the import of contaminated and hazardous waste against national restrictions and import bans. Again, a lack of capacity plays a role. It seems that in the Canada-Philippines case, the customs officials involved were unaware of the rules applicable to importing waste and the quality requirements. This could be addressed through



the establishment of training, cooperation and coordination mechanisms between customs and other authorities involved in implementing and enforcing waste management controls.

## 5.4 Factors enabling corruption in the waste sector

In addition to the emerging typology of key patterns of corruption at strategic steps of the waste management chain, the research identified the following enabling factors:

- **Lack of proper record keeping** of waste management operations, permits and inspection data, which could also be linked to challenges in identifying different types of waste. Better records would provide insights into the compliance of waste operators with regulations. They would also help to identify weak points in the waste management chain and related risks.
- **Lack of skills and knowledge among public procurement officers.** The complexities of waste management operations and sites require skilled procurement officers who understand the sector. They also need to understand the risks and how to mitigate them. In the cases of Lebanon and Albania, more complex contracts had to be drafted to ensure a proper waste operating business keeping the economic, human health and environmental aspects in consideration. A lack of knowledge can be exploited to serve the interests of a few.
- **Insufficient environmental monitoring**, meaning few or no inspections and a lack of skilled environmental inspectors to perform compliance-checking activities. Because of the lack of appropriate resources for environmental compliance, cases of improper waste management can continue. For example, a site that operates outside the limits of its environmental permit might not be detected when checked by unskilled inspectors.
- **Lack of cooperation between environmental and financial investigation units and other enforcement authorities.** A siloed investigative approach results in law enforcement missing wider breaches or offences, or not fully discovering the size and impact of the offence(s). Multi-disciplinary investigations are needed to address the convergence between environmental offences and related corruption or financial crime. Environmental authorities or those implementing the Basel Convention could cooperate with other (financial) law enforcement agencies to more effectively target financial offences linked to waste crimes or the waste sector.
- **Lack of understanding of the waste sector among prosecutors and judges.** Prosecuting and adjudicating environmental crime, including waste crime cases, require an in-depth knowledge of the legal frameworks and an understanding of the impact of these offences. The legal frameworks for waste offences can be vague, incomplete or complex, associated with time-consuming

investigations and low outcomes in terms of penalties. Therefore, prosecutors are often tempted to focus their limited time and resources on other more straightforward cases.

- **Lack of transparency around waste management decisions and administrative/criminal proceedings.** In various case studies, the challenges in accessing public and accurate information created a major obstacle. The lack of publicly available information makes oversight by civil society and interested parties very difficult. A lack of transparency of proceedings favours those who opt for corrupt practices to delay or hinder them or even have their cases dismissed, without the public knowing and with no accountability. Transparency in court proceedings increases efficiency and effectiveness. It also promotes confidence in the judicial system and in the fair administration of justice. The legal foundations requiring transparency of court procedures are based on the right to information<sup>14</sup> and the right to a fair trial. Transparency also encourages a fair, consistent and impartial treatment of the offenders.

## 5.5 Takeaways for national stakeholders and international partners

More in-depth research is needed on corruption in the waste sector to further identify *modi operandi*, trends and threats. This research has merely scratched the surface and zoomed in on a handful of cases. Follow-up work will support a better understanding of the problem and could touch on emerging risks such as the use of cryptocurrencies to facilitate waste-related crimes and money laundering.

- **Detailed supply chain corruption risk assessments (CRA)** are needed to further map corruption risks and develop context-specific mitigation measures.
- **International donors** focusing on the fight against environmental crime could usefully support research and activities to strengthen governance in the waste sector. Even a small increase in funding could make a big difference in this area, which has until now been underprioritised.
- **Anti-corruption regulations and approaches should be extended more proactively to the waste management sector.** These might include transparency and accountability mechanisms such as whistle-blowing systems and open data initiatives around the use of government funding for waste management and procurement procedures.
- **Digitalisation of administrative processes related to permitting and customs clearances** would go a long way to reducing discretion. Combining digitalisation with transparency, governments could establish

---

<sup>14</sup> Principles of access to information, public participation and access to justice in environmental matters (access rights) are developed in international and regional instruments such as the Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (Aarhus Convention), adopted under the auspices of the Economic Commission for Europe, and the Regional Agreement on Access to Information, Public Participation and Justice in Environmental Matters in Latin America and the Caribbean (Escazú Agreement), adopted under the auspices of the Economic Commission for Latin America and the Caribbean.

national databases related to waste management sites and online platforms displaying open tenders, bids, pricing and contracts awarded.

- **Collective Action could get the private sector engaged in addressing corruption issues in waste management.** Collective Action is a collaborative approach to address corruption challenges and raise standards of integrity and fair competition in business.<sup>15</sup> Collective Action initiatives with waste processing firms could help raise standards of integrity across the industry locally and worldwide. Developing best practices and self-regulatory standards within the sector could support anti-corruption efforts and enhance conditions for fair competition.
- It has been mentioned that **inspections** would be more efficient if performed by regional or national authorities rather than local authorities.<sup>16</sup> This could increase the distance between a local business, the regulators and political influence.
- **Developing awareness-raising and capacity-building programmes** for regulators, investigators and the judiciary on waste crime, financial investigations and procurement procedures also appears to be a common need. For instance, a legal expert (Int. 30092022), said that there are no cases related to waste at the prosecutors' office in their country. This could be the result of undue influence through corruption, but may simply be due to a lack of awareness of prosecutors. Building their skills to investigate and prosecute cases of waste crime would be a good step forward. Guidance has been developed in the context of the Basel Convention specifically addressed to prosecutors and the judiciary as well as other concerned authorities, which could be further promoted and used at the national level to raise awareness.
- **Inter-agency cooperation to foster joint investigations** by environmental units and financial investigation units is needed. According to an interview with a source of the law enforcement sector (Int.28102022), a good starting point to investigate and prove corruption is to review the financial situation of a suspect and verify the justifications for large transactions. Different forms of cooperation and coordination include formal mechanisms (e.g. a memorandum of understanding between agencies, joint committees) and informal mechanisms (e.g. bilateral relationships, email groups, etc). The different mechanisms are mutually supportive and could be used together or not – it is for national authorities to determine what could be relevant and effective in their circumstances. Existing mechanisms could also be extended to cover waste management, e.g. a committee between customs and the Ministry of Environment to cover biodiversity crimes, or a mechanism covering chemicals management, could be extended to waste).

---

<sup>15</sup> Learn about anti-corruption Collective Action on the Basel Institute's online resource hub: [collective-action.com](https://www.baselintstitute.org/collective-action)

<sup>16</sup> Instruction manual on the prosecution of illegal traffic of hazardous wastes or other wastes; Guidance Elements for Detection, Prevention and Control of Illegal Traffic in Hazardous Waste

# Annex I: Glossary of terms

This report refers to corruption and waste offences in the broader sense. To clarify key terms used throughout the report, regardless of the background of the reader, the following glossary of terms highlights corruption related and waste related terminology.

## 6.1 Corruption

There is no universal legal definition of corruption.<sup>17</sup> This report used the broad definition of corruption as the **abuse of entrusted power for private gain** (Transparency International). The initial proposer of such a definition was the World Bank (World Bank 1997).

As this broad definition suggests, corruption is best understood as an umbrella term that covers many different types of practices and behaviours that involve the misuse of powers that are meant to serve a collective good in favour of private interests. Most often it is understood in terms of government and public-sector officials serving and benefitting narrow vested interests. Practices of corruption can come in many forms and can occur at any level (see SDC 2021).

- **Petty corruption** refers to transactions that often happen in the course of the provision of public services and involve relatively small amounts of money (although the sums are often not negligible for those who are paying and receiving them).
- **Grand corruption** involves large sums of money and is carried out by high-level political, public administration and business elites, often colluding with each other.
- **Political corruption** has to do with actions that subvert the political process and the rule of law in order to favour particular interests. This can involve rigging elections, but also supporting and endorsing tailored laws to the benefit of private interests or instrumentalising law enforcement for political or partisan purposes. The term “state capture” has emerged to qualify systemic political corruption with private interests having a diffuse influence in a state’s governance.
- **Bribery**: the giving, receiving or demanding of a benefit (money, material) in order to improperly influence an official action or service.
- **Collusion**: Agreement between employees and/or with other people to act together secretly or illegally in order to deceive or cheat others.
- **Favouritism and nepotism**: Using one’s position to give preferential treatment to a person or group or category of persons who may be

---

<sup>17</sup> The United Nations Convention against Corruption (UNCAC) is the only legally binding universal anti-corruption instrument. The Convention entered into force 14 December 2005 and as of November 2021 has 189 Parties. The UNCAC lists criminal offenses related to corruption in chapter III but it does not contain a definition of corruption.

relatives or friends in the process of assigning contracts, appointments, services or resources.

## **Main international frameworks on corruption**

**The United Nations Convention against Corruption (UNCAC)**, adopted by the UN General Assembly on 31 October 2003, is the leading international anti-corruption legal instrument. The Convention covers many different forms of corruption, such as bribery, trading in influence, abuse of functions and various acts of corruption in the private sector, and covers five main areas: preventive measures, criminalisation and law enforcement, international cooperation, asset recovery, and technical assistance and information exchange.

The UNCAC does not define corruption as such but lists and defines a series of offences that should be criminalised and covered by legal provisions in every jurisdiction covered by UNCAC. These include bribery of national and foreign public officials and in the private sector, embezzlement, money laundering, concealment and obstruction of justice.

The **OECD Anti-Bribery Convention** establishes legally binding standards to criminalise bribery of foreign public officials in international business transactions and provides for a host of related measures that make this effective. It is the first and only international anti-corruption instrument focused on the “supply side” of bribery.

## **6.2 Waste offences**

The term “waste offences” varies depending on the context. Beyond specific legal definitions, it is often used as an umbrella term to refer to any criminal, civil and administrative offences relating to waste, as well as acts involving waste that have negative impacts on the environment or human health.

### **6.2.1 Waste crime**

Although a universally accepted definition of waste crime does not exist, the UNODC Legislative Guide (UNODC 2022) states that waste crime can generally be understood as “the trade, treatment or disposal of waste in ways that breach international or domestic environmental legislation and cause harm or risk to the environment and [or] human health and related conduct, such as fraudulent acts and omissions”.

### **6.2.2 Waste trafficking**

The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (Basel Convention) is the main international agreement that regulates the transboundary movement and disposal of

hazardous waste The Basel Convention defines illegal traffic of waste covered by the Basel Convention as follows (Art 9.1):

**“For the purpose of this Convention, any transboundary movement of hazardous wastes or other wastes:**

- **without notification pursuant to the provisions of the Convention to all States concerned;**
- **without the consent of a State concerned;**
- **through consent obtained by falsification, misrepresentation or fraud;**
- **when movement does not conform in a material way with the documents;**
- **or when movement results in deliberate disposal of hazardous wastes in contravention of the Convention and of general principles of international law,**

**shall be deemed illegal.”**

This definition of illegal traffic is however limited to the scope of the Convention only, that is, to the trafficking of waste falling within the scope of the Convention.

The term “trafficking” is understood to refer to an illegal trade activity, for example human trafficking or wildlife trafficking.

“Waste trafficking” more generally is also a term that may have different definitions, ranging from narrower definitions that focus on the movement of waste and, in particular, the movement of waste that is transboundary or transnational, to more expansive definitions that encompass a broader range of acts and are not limited to transboundary movements. For example, when referring to illegal management of waste, such as storage, mixing or the treatment of waste. Waste trafficking may be understood as a subset of waste offences and waste crime, albeit a subset of varying breadth depending on how the term is used.

The *Combating Waste Trafficking – A Guide to Good Legislative Practices* (UNODC 2022) describes Waste Trafficking in Model Provisions 3, as:

**“ “Traffics”, in relation to waste, means imports, exports, transports, buys, sells, brokers, treats, processes, collects, sorts, labels, handles, utilizes, stores, recycles, disposes of or burns:**

- a. Without lawful authority where such authority is required by law;**
- b. Without a [insert relevant terminology for licences, permits, certificates etc.] granted by [insert competent authorities];**
- c. Contravening the conditions of said [insert relevant terminology for licences, permits, certificates etc.]; or**

**d. In a manner that otherwise contravenes [insert reference to relevant waste management legislation].**

**(2) Any person who [with the requisite mental state] traffics waste belonging to a category listed in [insert reference to relevant schedules] commits an offence."**

### **6.2.3 Hazardous waste**

The definition of hazardous waste within the framework of the Basel Convention, is defined in its article 1(1):

**"The following wastes that are subject to transboundary movement shall be "hazardous wastes" for the purposes of this Convention:**

**(a) Wastes that belong to any category contained in Annex I, unless they do not possess any of the characteristics contained in Annex III; and**

**(b) Wastes that are not covered under paragraph (a) but are defined as, or are considered to be, hazardous wastes by the domestic legislation of the Party of export, import or transit."**

### **6.2.4 Other waste**

The category "other waste" is defined by the Basel Convention as waste categories listed in Annex II to the Basel Convention. These wastes are not considered hazardous, but due to their composition required as wastes that need special consideration. Categories included are wastes collected from households, residues arising from the incineration of household waste and mixed plastic waste.

## Annex II: Interviews

<b>Int.16092022</b>	Source from an intergovernmental organisation
<b>Int.30082022</b>	Anti-corruption advisor at an intergovernmental organisation
<b>Int.12102022</b>	National specialist in legal matters
<b>Int.18102022</b>	Source from an intergovernmental organisation
<b>Int.19102022</b>	Former high-level political actor
<b>Int.17112022</b>	Civil society representative
<b>Int.28102022</b>	Source from law enforcement
<b>Int.30092022</b>	Legal expert
<b>Int.24082022</b>	Source from investigative journalism
<b>Int.07112022</b>	National legal expert
<b>Int.04112022</b>	National researcher



## Bibliography

- Abu-Rish, Ziad. 2015.** *Garbage Politics*. Vol. 277. Middle East Research and Information Project. <<https://merip.org/2016/03/garbage-politics/>>.
- Agence France — Press. 2015.** *Lebanon cabinet approves plan to end trash crisis*. Beirut: Hurriyet Daily News, 10 September. <<https://www.hurriyetaidailynews.com/lebanon-cabinet-approves-plan-to-end-trash-crisis--88292>>.
- Bauhr, Monika, Ágnes Czibik, Jenny de Fine Licht, and Mihály Fazekas. 2020.** "Lights on the shadows of public procurement: Transparency as an antidote to corruption." *Governance* (Wiley Online Library) 33 (3): 495-523. doi: <<https://doi.org/10.1111/gove.12432>>.
- Bogdani, Aleksandra, and Besar Likmeta. 2020.** *The Incinerator: How a Politically-Connected Albanian Built an Empire on Waste*. Balkan Insight. <<https://balkaninsight.com/2020/09/28/the-incinerator-how-a-politically-connected-albanian-built-an-empire-on-waste/>>.
- Buan, Lian. 2020.** *DENR, Customs officials face charges over Canada trash*. Rappler, 23 January. <<https://www.rappler.com/nation/250039-denr-customs-officials-face-charges-canada-trash/>>.
- Bueta, Gregorio Rafael P. 2020.** *Waste Trade in the Philippines: How Local and Global Policy Instruments Can Stop the Tide of Foreign Waste Dumping in the Country*. Greenpeace and the EcoWaste Coalition. <<https://www.greenpeace.org/static/planet4-philippines-stateless/2020/03/da311344-waste-trade-in-the-philippines-report-v2.pdf>>.
- Cesi B., DÁmato A., Zoli M. 2019.** "Corruption in Environmental Policy: the Case of Waste." *Economia Politica* 36: 65-78. doi: <<https://doi.org/10.1007/s40888-017-0087-x>>.
- Chaaban, Jad. 2016.** *One Year On, Lebanon's Waste Management Policies Still Stink*. The Lebanese Center for Policy Studies, 1 September. <<https://www.lcps-lebanon.org/articles/details/1946/one-year-on-lebanon%E2%80%99s-waste-management-policies-still-stink>>.
- Chris Tollefson, Anthony Ho. 2019.** "In the matter of Canada's violations of the Basel Convention — Legal Opinion." Pacific Centre for Environmental Law and Mitigation, 10 April. <<https://rightoncanada.ca/wp-content/uploads/2019/04/Legal-Opinion-re-Canadas-Violations-of-the-Basel-Con-vention-2019-04-10.pdf>>.
- CNN Philippines. 2019.** *Canada to pay ₱10 million for repatriation of trash — Justice chief*. 29 May. <<https://www.cnnphilippines.com/news/2019/5/29/Canada-trash-payment-Justice-Secretary-Menardo-Guevarra.html>>.

- Cvetkovska, Saska. 2021.** *Macedonian Government Sanctions 7 Firms Following OCCRP/IRL Investigation.* OCCRP, 11 June. <<https://www.occrp.org/en/daily/14612-macedonian-government-sanctions-7-firms-following-occrp-irl-investigation>>.
- Cvetkovska, Saska, David Ilieski, Ivana Nasteska (IRL), Pavla Holcová (Investigace.cz), and Amra Dzonlic (OCCRP). 2021.** *'Europe's Waste Dump': How Dangerously Polluting Oil Ended Up Heating North Macedonia's Hospitals.* OCCRP, Investigace and IRL Macedonia. <<https://www.occrp.org/en/investigations/europes-waste-dump-how-dangerously-polluting-oil-ended-up-heating-north-macedonias-hospitals>>.
- D'Amato Alessio, Mazzanti Massimiliano, Nicolli Francesco. 2015.** "Waste and Organized Crime in Regional Environments How waste tariffs and the mafia affect waste management and disposal." *Resource and Energy Economics.* doi:10.1016/j.reseneeco.2015.04.003.
- Dávid-Barrett, Elizabeth. 2023.** "State capture and development: a conceptual framework." *Journal of International Relations and Development.* doi:<<https://doi.org/10.1057/s41268-023-00290-6>>.
- Dávid-Barrett, Elizabeth, and Mihály Fazekas. 2019.** "Grand corruption and government change: an analysis of partisan favoritism in public procurement." *European Journal on Criminal Policy and Research* 411-430. doi:<<https://doi.org/10.1007/s10610-019-09416-4>>.
- Department of Justice. 2022.** *Stericycle Agrees to Pay Over \$84 Million in Coordinated Foreign Bribery Resolution.* 20 April. <<https://www.justice.gov/opa/pr/stericycle-agrees-pay-over-84-million-coordinated-foreign-bribery-resolution>>.
- Doumani, Sherif Arif and Fadi. 2014.** *LEBANON — Cost of environmental degradation due to solid waste management practices in beirut and mount lebanon(bml).* Policy Note, Bonn and Eschborn: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH. <<http://studies.gov.lb/getattachment/Sectors/Environment/2014/ENV-14-5/env-14-5.pdf>>.
- Duri, Jorum. 2021.** *Overview of corruption in the environment and climate sector in the Western Balkans and Turkey.* Transparency International. <[https://knowledgehub.transparency.org/assets/uploads/kproducts/Corruption-in-the-environment-and-climate-sector-in-Western-Balkans-and-Turkey\\_2021\\_PR.pdf](https://knowledgehub.transparency.org/assets/uploads/kproducts/Corruption-in-the-environment-and-climate-sector-in-Western-Balkans-and-Turkey_2021_PR.pdf)>.
- Environment South East Europe. 2021.** *North Macedonia's schools, hospitals, and government bodies burning dirty oil in their heating systems.* 11 June. <<https://environmentsee.eu/north-macedonias-schools-hospitals-and-government-bodies-burning-dirty-oil-in-their-heating-systems/#:~:text=Evrotim%20was%20helped%20by%20North%20Macedonian%20politician%20and,the%20government%20has%20so%20far%20ignored%20the%20>>.

- EUROJUST. 2023.** *Crackdown on a criminal network dealing with waste trafficking and money laundering.* 16 February. <<https://www.eurojust.europa.eu/news/crackdown-criminal-network-dealing-waste-traffic-ing-and-money-laundering>>.
- Fátharta, Conall Ó. 2018.** *Waste collection a 'natural monopoly'.* Irish Examiner, 19 September. <<https://www.irishexaminer.com/news/arid-30872325.html>>.
- Flores, Helen. 2019.** *Canada trash sails from Philippines; envoys told to return.* Philstar Global, 1 June. <<https://www.philstar.com/headlines/2019/06/01/1922695/canada-trash-sails-philippines-envoys-told-return>>.
- GMA News Online. 2017.** *Consignee that imported Canada garbage to PHL long closed.* 17 November. <<https://www.gmanetwork.com/news/topstories/nation/633509/consignee-that-imported-canada-garbage-to-phl-long-closed/story/>>.
- Holcová, Pavla. 2021.** *Mazut.* Investigace, 21 May. <<https://www.investigace.cz/mazut/>>.
- Hoornweg, Daniel, and Perinaz Bhada-Tata. 2012.** *What a Waste: A Global Review of Solid Waste Management.* Washington DC: World Bank. doi: <<http://hdl.handle.net/10986/17388>>.
- INTERPOL. 2022.** "Strategic Report — The Nexus Between Organized Crime and Pollution Crime."
- Jihad Farah, Rasha Ghaddar, Elie Nasr, Rita Nasr, Hanan Wehbe. 2019.** *Solid Waste Management in Lebanon: Lessons for Decentralisation. Transparency Lebanon.* <[https://transparency-lebanon.org/Uploads/Library/258/download/80942116-5fdc-41ac-b3fa-1fa2a9617d6a\\_258.pdf](https://transparency-lebanon.org/Uploads/Library/258/download/80942116-5fdc-41ac-b3fa-1fa2a9617d6a_258.pdf)>.
- Kaza, Silpa, Lisa C. Yao, Perinaz Bhada-Tata, and Frank Van Woerden. 2018.** *What a Waste 2.0.* Washington: World Bank.
- Mamun, Abdullah Al, Tofan Agung Eka Prasetya, Indiah Ratna Dewi, and Monsur Ahmad. 2023.** "Microplastics in human food chains: Food becoming a threat to health safety." *Science of the Total Environment* Volume 858 (1). doi:<<https://doi.org/10.1016/j.scitotenv.2022.159834>>.
- Marcelo, Ver. 2018.** *DENR official to face raps for mishandling Canadian trash.* Manila: CNN Philippines, 29 Junr. <<https://www.cnnphilippines.com/news/2018/06/29/denr-canadian-trash-justin-trudeau-ombudsman.html>>.
- Moughalian, Catherine. 2016.** *Naameh Landfill, Lebanon.* Environmental Justice Atlas, 8 November. <<https://ejatlas.org/conflict/naameh-landfill-lebanon>>.

- Muci, Nora. 2022.** *PM Rama: €55.3M paid by state budget for incinerators.* Euronews Albania, 23 February. <<https://euronews.al/en/pm-rama-be-gins-testimony-on-incinerator-affair/>>.
- Muci, Nora. 2022.** *Who are the nine suspects accused by SPAK over Fier incinerator?* Euronews Albania, 29 March. <<https://euronews.al/en/who-are-the-nine-suspects-accused-by-spak-over-fier-incinerator/>>.
- Nash, Matt. 2016.** *Dissecting a waste empire.* Executive Magazine, 15 January. <<https://www.executive-magazine.com/economics-policy/dissecting-a-waste-empire>>.
- Office of the Ombudsman (Philippines). 2018.** *DENR exec to face graft charge for Canadian trash mess.* 29 June. <<https://www.ombudsman.gov.ph/denr-exec-to-face-graft-charge-for-canadian-trash-mess/>>.
- Orejas, Tonette. 2019.** *8 containers of Canadian trash missing, environmental group says.* Inquirerer.net, 7 May. <<https://newsinfo.inquirer.net/1114676/8-containers-of-canadian-trash-missing-environmental-group-says>>.
- O’Sullivan, Feargus. 2023.** *The Enduring Power of the Garbage Strike.* Bloomberg, 17 March.
- Politiko. 2022.** *BIRN’s analysis of the origin of incinerators: The environmental emergency was declared without legal basis.* 3 March. <<https://politiko.al/english/e-tjera/analiza-e-birn-per-zanafillen-e-inceneratoreve-emergjenca-mjedisore-u-sh-i454943>>.
- Precedence Research. 2022.** *“Waste Management Market.” Precedent Research.* June. Accessed March 28, 2023. <<https://www.precedenceresearch.com/waste-management-market>>.
- Pulta, Benjamin. 2020.** *DENR, Customs execs face raps over Canada garbage mess.* Philippine News Agency, 23 January. <<https://www.pna.gov.ph/articles/1091753>>.
- Rappler. 2014.** *BOC sues firm for dumping Canada’s waste in PH.* 20 February. <<https://www.rappler.com/business/economy/51094-boc-complaint-canada-waste-ph/>>.
- Republika. 2019.** *RFE: Deputy Prime Minister Koco Angjusev owns one third of 75 hydropower plants in Macedonia.* <<https://english.republika.mk/news/economy/rfe-deputy-prime-minister-koco-angjusev-owns-one-third-of-75-hydropower-plants-in-macedonia/>>.
- Saad, Vivian Yee and Hwaida. 2019.** *To Make Sense of Lebanon’s Protests, Follow the Garbage.* Middle East. The New York Times, 3 December. <<https://www.nytimes.com/2019/12/03/world/middleeast/lebanon-protests-corruption.html>>.

**Sot.Com.AL. 2022.** *The scandal with the incinerators deepens / Tabaku reveals strong facts: Stela Gugallja is the cohabitant of Mirel Mërtiri, the person who suddenly became key in one of the most profitable businesses in the country.* 7 March. <<https://sot.com.al/english/aktualitet/thellohet-skandali-me-inceneratoretabaku-zbulon-fakte-te-for-ta-stel-i498323>>.

**Sousa V, Dias-Ferreira C, Fernández-Braña A, Meireles I. 2019.** "Benchmarking operational efficiency in waste collection: Discussion of current approaches and possible alternatives." *Waste Management & Research*. 37 (8): 803-814. doi: <<https://doi.org/10.1177/0734242X19854119>>.

**SPAK. 2022.** *Press Conference.* 19 December. <<https://spak.al/2022/12/20/njoftim-per-shtyp-9/>>.

**Standford Law School. 2022.** "FCPA Standford." *Case Information in the Matter of Stericycle, Inc.* 20 April. <<https://fcpa.stanford.edu/enforcement-action.html?id=861>>.

**Taylor, Alice. 2022.** *Albania Continues Payments to Company Embroiled in Government Money Laundering Scandal.* Exit News, 8 April. <<https://exit.al/en/albania-continues-payments-to-company-embroiled-in-government-money-laundering-scandal/>>.

**The Centre for Social Sciences Research & Action. 2016.** *Waste Management Conflict | January, 2014 to September, 2018.* 21 October. <<https://civilsociety-centre.org/timeliness/4923#event-a-href-sir-sit-naameh-landfill-suspended-after-crackdownsit-in-at-naameh-landfill-suspended-after-crackdown-a>>.

**The New Arab. 2015.** *More than 80 arrested as Lebanon protests turn violent.* The New Arab & Agencies, 26 August. <<https://www.newarab.com/news/more-80-arrested-lebanon-protests-turn-violent>>.

**UNEP. 2015.** *Waste Crime: Low Risks — High Profits. Gaps in Meeting the Global Waste Challenge. A Rapid Reponse Assessment.* Nairobi and Arenal: UNEP. <<https://wedocs.unep.org/20.500.11822/9648>>.

**United States District Court — Southern District of Florida. 2022.** "US Justice Department." *Inditement Case 22-20156-CR-Moore/Louis.* 14 April. <<https://www.justice.gov/opa/press-release/file/1496411/download>>.

**United States District Court — Southern District of Florida. 2022.** "Deferred Prosecution Arrangement between Stericycle and the USDoJ." <<https://www.justice.gov/opa/press-release/file/1496416/download>>.

**UNODC. 2022.** *Combating Waste Trafficking — A Guide to Good Legislative Practice.* Vienna: UNODC.

**World Bank. 1997.** *Helping the countries combat corruption, the role of the*

*World Bank*. Washington DC. : World Bank Report.

**Young, Michael. 2015.** *Trashy Politics*. Politico, 31 August. <<https://www.politico.eu/article/trashy-politics-beirut-trash-crisis-lebanon-corruption/>>.