

**How can the Enforcement of the Basel Convention be  
Improved? - A Case Study of China and the UK and the  
Role of Networks**

Thesis submitted to the School of Law at the University of Strathclyde  
for the degree of Doctor of Philosophy

by

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## ACRONYMS

3S	Three Synchronisations
ACP	African, Caribbean and Pacific
AECEN	Asia Environmental Compliance and Enforcement Network
ARPEC	Asian Regional Partners Forum on Combating Environmental Crime
AU	African Union
BAN	Basel Action Network
BEI	Bureau of Environmental Inspection
BREXIT	British Exit
CENcomm	Customs Enforcement Network Communication Platform
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CJEU	Court of Justice of the European Union
COP	Conference of the Parties
COPFS	Crown Office and Procurator Fiscal Service
DEFRA	Department for Environment, Food and Rural Affairs
DG	Directors-Generals
DTRT	Doing the Right Thing
EA	Environment Agency
EANECE	East African Network for Environmental Compliance and Enforcement
EC	European Commission
ECHR	European Court of Human Rights
ECJ	European Court of Justice
ECT	Environmental Crime Team
EIA	Environmental Impact Assessment
ENFORCE	Environmental Network for Optimizing Regulatory Compliance on Illegal Traffic
EPA	Environmental Protection Agency
EPB	Environmental Protection Bureau

EPE	Environmental Protection Expenditures
EPL	Environmental Protection Law
ESM	Environmentally Sound Management
ESS	Environmental Standards Scotland
EU	European Union
ExCOPs	Simultaneous Extraordinary meeting of the Conference of the Parties to the Basel Convention, Rotterdam Convention and Stockholm Convention
FAO	Food and Agriculture Organization
FTE	Full-Time Equivalent
G20	Group of Twenty
GDP	Gross Domestic Product
GEF	Global Environment Facility
GCI	Green Custom Initiative
HMRC	Her Majesty's Revenue and Customs
HSE	Health and Safety Executive
IAEA	International Atomic Energy Agency
ICWC	International Consortium on Combating Wildlife Crime
ICJ	International Court of Justice
ILA	International Law Association
ILC	International Law Commission
IMPEL	European Union Network for the Implementation and Enforcement of Environmental Law
INECE	International Network for Environmental Compliance and Enforcement
INTERPOL	International Criminal Police Organisation
IRI	IMPEL Review Initiative
ITLOS	International Tribunal for the Law of the Sea
MARPOL	International Convention for the Prevention of Pollution from Ships
MEA	Multilateral Environmental Agreement
MEE	Ministry of Ecology and Environment

MEN	Maghreb Enforcement Network
MEP	Ministry of Environmental Protection
MOU	Memorandum of Understanding
Mt	Million Metric Tons
NCP	National Contact Points
NIEA	Northern Ireland Environment Agency
NGO	Non-Governmental Organization
NGOs	Non-Governmental Organizations
NPC	National People's Congress
NRW	Natural Resources Wales
OAU	Organization of African Unity
OECD	Organization for Economic Cooperation and Development
OEP	Office of Environmental Protection
Ofwat	Water Services Regulatory Authority
OSPAR	Convention for the Protection of the Marine Environment of the North-East Atlantic
PAW	Partnership for Action Against Wildlife Crime
PIC	Prior Informed Consent
PRC	People's Republic of China
PSB	Public Security Bureau
REN	Regional Enforcement Network for Chemicals and Waste
REPIN	Regulatory Environmental Programme Implementation Network
RTF	Rainforest Trust Fund
RILO	Regional Intelligence Liaison Offices
RMCEI	Recommended Minimum Criteria for Environmental Inspection
ROAP	Regional Office for Asia and the Pacific
SEPA	Scottish Environment Protection Agency
SESN	Seaport Environmental Security Network
SNH	Scottish Natural Heritage

STAP	Scientific and Technical Advisory Panel
SWEAP	Shipments of Waste Enforcement Action Project
TEEL	Transnational Enforcement of Environmental Law
TFEU	Treaty on the Functioning of the EU
TFS	Transfrontier Shipment of Waste
UK	United Kingdoms
UN	United Nations
UNCLOS	United Nations Convention on the Law of the Sea
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
UNGA	United Nations General Assembly
UNODC	United Nations Office on Drugs and Crime
US	United States
VHRM	Flemish High Council of Environmental Enforcement
WCO	World Customs Organization
WEEE	Waste Electrical and Electronic Equipment
WHF	World Heritage Fund
WSR	Waste Shipment Regulation

## **ABSTRACT**

The rise of globalization and urbanization has led to increased production and emission of hazardous wastes. Developed countries often mitigate their disposal costs by exporting large quantities of these wastes to developing countries, causing significant environmental pollution. International organisations like the United Nations Environment Program and various countries have recognized this issue and have developed environmental laws to combat it. Despite these efforts, enforcement remains weak against the growing threat of pollution.

This thesis investigates how to improve the enforcement of laws governing the transboundary movement of hazardous wastes, particularly focusing on the Basel Convention. It examines the role of inter-governmental and inter-institutional networks in achieving effective enforcement. By comparing national legislation and enforcement mechanisms in the UK and China, the study highlights significant differences in how these countries handle environmental law enforcement.

The UK, typically a waste-exporting nation, and China, a waste-importing nation, exhibit contrasting enforcement capabilities. China's environmental law enforcement has evolved, yet it still lags behind the UK's more robust systems. The thesis underscores that networks - facilitating the exchange of expertise and resources—are essential in strengthening national and institutional capacities for enforcing laws on hazardous waste movement.

Overall, the study concludes that enhancing cooperation through networks can significantly improve the enforcement of environmental laws, reducing the detrimental impact of hazardous waste transboundary movement.



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## Chapter 1 Introduction

### 1.1 Aim and Outline

This thesis seeks to answer the question of how best to improve the enforcement of environmental law, in particular, the Basel Convention controlling the transboundary movement of hazardous wastes and their disposal (Basel Convention) regime, against the background of experiences in China and the United Kingdom (UK) and the role of networks in this regard. In this thesis, a network means a group of states, government authorities within a state, or non-governmental organisations (NGO) (or all of these) established to exchange information and coordinate activities to address common problems. Although the arguments run through the entire thesis, the discussion focuses on improving enforcement in each chapter, from legislation to enforcement. Indeed, the Basel Convention provides a basic legal framework for international trade in hazardous waste.<sup>1</sup> However, improving the enforcement of the Basel Convention is urgently required to adequately safeguard the environment, particularly in developing countries, from the potential adverse effects of international trade in hazardous waste.<sup>2</sup> These improvements need to be based on the understanding that national law enforcement includes legislation, institutions, and other enforcement mechanisms.<sup>3</sup>

This study considers the efficiency of law enforcement as it concerns the transboundary movement of hazardous and other wastes with a particular focus on the role of enforcement networks. Specifically, it considers how networks contribute to the key themes of enforcement<sup>4</sup> in two countries – the UK and China. This research commenced towards the end of 2013; at that time, the UK was still a

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<sup>1</sup> See Chapter 3 of this thesis

<sup>2</sup> See Chapter 4 of this thesis

<sup>3</sup> See Chapter 6 and Chapter 6 of this thesis

<sup>4</sup> See Chapter 2 and Chapter 7 of this thesis

member of the European Union (EU). The research was completed after Brexit. Thus, there were changes in the course of this research. Secondly, when the author began this research on the Basel Convention, the Basel Amendment was not enforced until 2019, while the thesis was being written.

This chapter first introduces the significance of the research, which addresses the impact of the transboundary movement of hazardous waste and the related facts, issues, and needs. The chapter then provides a literature review on the key themes and discusses networks and their value. An analysis of the weakness of the Basel Convention system is also included. This is followed by the methodology, while the thesis structure is presented last.

## **1.2 Research Significance**

One of the fundamental principles of environmental law is sustainable development, which is also a global governance mechanism.<sup>5</sup> Sustainable development comprises three major interrelated aspects: economic growth, environmental protection and social development.<sup>6</sup> Waste pollution, especially the transboundary movement of waste, is an important environmental issue and concern of international and national environmental law regimes.

### **1.2.1 Impact of Transboundary Movement of Hazardous Waste**

The transboundary movement of waste is a commercial activity that could bring substantial economic benefits for individuals and enterprises engaged in the movement. Hazardous and other wastes are usually shipped in large amounts to seek high financial returns; thus, incidents involving hazardous wastes are likely to affect

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<sup>5</sup> United Nations Technical Support Team, 'TST Issue Brief: Global Governance' (United Nation 2014)  
<[https://sustainabledevelopment.un.org/content/documents/2429TST%20Issues%20Brief\\_Global%20Governance\\_FINAL.pdf](https://sustainabledevelopment.un.org/content/documents/2429TST%20Issues%20Brief_Global%20Governance_FINAL.pdf)> accessed 12 December 2020

<sup>6</sup> PP Rogers and others (eds), *An Introduction to Sustainable Development* (Earthscan 2008) 42-45



large areas and human health, animals, and natural resources.<sup>7</sup> The data shows that approximately 5 million metric tons of hazardous waste were generated globally in 1945, which grew to an estimated 400 million metric tons by 2000. At least 75 percent of such waste originated in industrialised and developed countries.<sup>8</sup>

Currently, the most rapidly growing waste stream is e-waste, which encompasses all end-of-life electrical and electronic equipment, such as mobile phones, computers, and various home appliances.<sup>9</sup> Moreover, increased transboundary movement of waste inevitably leads to disposal problems that lead to more serious environmental damage<sup>10</sup> and even crime. A comprehensive study of global environmental crime estimated the profit from the illegal dumping of trash and hazardous waste materials to be 10 and 12 billion US dollars (USD) annually; on electronic waste alone, nearly 50 million metric tons of e-waste are disposed of worldwide yearly.<sup>11</sup>

Different kinds of hazardous waste also led to more complex disposal problems. Hazardous waste disposed of in landfills leaches into the ground and underground water over time or may be released into the atmosphere. If it is incinerated, it can also release heavy metals or persistent organic pollutants, such as lead or dioxins and furans.<sup>12</sup> Additionally, by reason of high labour costs and environmental restrictions on disposing of components and residues, waste brokers in developed countries, especially countries in the global North, seek to transfer their responsibilities in this

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<sup>7</sup> J Albers, *Responsibility and Liability in the Context of Transboundary Movements of Hazardous Wastes by Sea: Existing Rules and the 1999 Liability Protocol to the Basel Convention* (Springer 2014) 1-5

<sup>8</sup> Z Lipman, 'Trade in Hazardous Waste' in International Environmental Law and the Global South' in Alam and others, *International Environmental Law and the Global South* (Cambridge University Press January 2015) 256-270

<sup>9</sup> Ibid

<sup>10</sup> Ibid

<sup>11</sup> DF Grabiell and others, 'The Seaport Environmental Security Network: Facilitating International Environmental Collaboration to Prevent Illegal Hazardous Waste Shipments through Ports' in M Faure and others (eds), *Environmental Enforcement Networks: Concepts, Implementation and Effectiveness* (Edward Elgar Publishing 2015) 290-291

<sup>12</sup> Ibid

regard to developing countries, especially countries in the global South, including Asian and African countries. This is a classic example of the 'not in my backyard' syndrome.<sup>13</sup> The dumping in the South/developing countries of hazardous wastes generated in the North/developed countries is a type of exploitation and environmental injustice, which violates the principle of sustainable development.<sup>14</sup>

Historically, there have been many cases of damaging and illegal international transboundary movement of waste. For example, the "Khian Sea" case involves 14,000 tons of toxic ash exported from Philadelphia, the United States (US), to the Caribbean to be dumped on an artificial island in the Bahamas in 1986.<sup>15</sup> Also, the "Zanoobia" case of 1987 involved approximately 2,200 tons of chemical waste shipped to Djibouti in Africa, where the drums were intended to be buried by an Italian waste management company.<sup>16</sup> In most incidents or cases, the transboundary movement of hazardous wastes from developed countries to developing countries leads to environmental problems.

Further examples of incidents regarding the transboundary movement of hazardous waste include the Thro Chemicals incident in South Africa.<sup>17</sup> And the Formosa incident in Cambodia.<sup>18</sup> Liability and compensation for damages resulting from the transboundary movement of hazardous wastes involve commercial interests concerning the importation and exportation of waste as well as the handling and

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<sup>13</sup> Ibid

<sup>14</sup> LA Pratt, 'Decreasing Dirty Dumping? A Reevaluation of Toxic Waste Colonialism and the Global Management of Transboundary Hazardous Waste' (2011) 35 (2) William and Mary Environmental Law and Policy Review 581

<sup>15</sup> L Gilmore, 'The Export of Non-hazardous Waste' [1989] 19 (4) *Envtl. L* 879

<sup>16</sup> Sylvia F Liu, 'The Koko Incident: Developing International Norms for Transboundary Movement of Hazardous Wastes' (1992) 8 (1) *J. Nat. Resources and Env'tl. L.* 127

<sup>17</sup> JI Glazewski, 'Regulating Transboundary Movement of Hazardous Waste: International Developments and Implications for South Africa' (1993) 26 (2) *The Comparative and International Law Journal of Southern Africa* 235

<sup>18</sup> J Lohnes, 'Taiwanese Company Dumps 3000 Tons of Toxic Waste in Cambodia' (2002) 11 *Colo. J. Int'l Env'tl. L. and Pol'y* 264

disposal of the same. The need to consider the industries of insurance and shipping as well as the industrial sectors of raw materials supply for steady demand is also present.<sup>19</sup> Political interests and positions are also involved because of the vital need to protect human health, the environment, and natural resources.<sup>20</sup> This complex issue remains unsettled, as the Basel Protocol, introduced in 1999 to address it, has yet to be in force.<sup>21</sup>

### 1.2.2 Further Issues

The raising of public awareness by the international community has culminated in international outrage, such that international organisations have begun to develop and use elaborate legal instruments to control and regulate the movement of hazardous waste.<sup>22</sup> The first and broadest comprehensive attempt at regulating hazardous waste came with the adoption the Basel Convention.<sup>23</sup> After the Basel Convention, many international, regional, and national laws, rules, and regulations on managing hazardous waste's transboundary movement have been drafted, amended, and adopted to control it.<sup>24</sup>

For example, at the regional level, there is the Organisation for Economic Co-operation and Development (OECD) Council Decision on the Control of Transboundary Movement of Wastes Destined for Recovery Operations,<sup>25</sup> the

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<sup>19</sup> Albers (n 7) 17-32

<sup>20</sup> Ibid

<sup>21</sup> Basel Protocol on Liability and Compensation for Damage Resulting Transboundary Movements of Hazardous Wastes and Their Disposal (adopted 10 December 1999) UNEP/CHW.5/29 BC-V/29

<sup>22</sup> S Barakat, 'Transboundary Movement of Hazardous Waste, Conventions, Treaties and Other Responses to Global Issues' (EOLSS) <<https://www.eolss.net/Sample-Chapters/C14/E1-44-02-02.pdf>> accessed January 2021

<sup>23</sup> Ibid;

Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and Their Disposal (adopted 22 March 1989, entered into force 5 May 1992) 1673 UNTS 57

<sup>24</sup> Ibid

<sup>25</sup> OECD, 'Guidance Manual for the Control of Transboundary Movements of Recovery Wastes' (2001) <<https://www.oecd.org/env/waste/guidance-manual-control-transboundary-movements-recoverable-wastes.pdf>> accessed February 2021

Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa,<sup>26</sup> the Lomé Convention (IV) ban on the export of hazardous and radioactive waste from the European Community to African, Caribbean and Pacific states (ACP),<sup>27</sup> the Izmir Protocol, which prohibits the export of hazardous and radioactive wastes to non-OECD countries, and those Parties that are not members of the European Community are prohibited from importing hazardous and radioactive wastes,<sup>28</sup> Moreover, the Waigani Convention to Ban the Importation into Forum Island Countries of Hazardous and Radioactive Wastes and to Control the Transboundary Movement of Hazardous wastes within the South Pacific Region.<sup>29</sup> At the national level, countries established national legislation to control and manage hazardous waste and other wastes, such as the Resource Conservation and Recovery Act in the United States,<sup>30</sup> and the Law on the Prevention and Control of Environmental Pollution by Solid Wastes in China.<sup>31</sup>

Although laws and regulations have increased since the last century, transboundary environmental crime has grown,<sup>32</sup> for example, over 79,000 incidents have been

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<sup>26</sup> Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa (adopted 29 January 1991, entered into force April 1998) 2102 UNTS 177

<sup>27</sup> Please see Chapter 3 for a brief discussion on the Lomé Convention (IV) generally

<sup>28</sup> Protocol on the Prevention of Pollution of the Mediterranean Sea by Transboundary Movement of Hazardous Wastes and Their Disposal (adopted 1 October 1996) UNTS 2942

<sup>29</sup> Convention to Ban the Importation into Forum Island Countries of Hazardous and Radioactive Wastes and to Control the Transboundary Movement and Management of Hazardous Wastes within South Pacific Region (adopted 22 March 1989, entered into force 21 October 2001) 2161 UNTS 91  
The Waigani Convention is strongly related to the London Convention.

Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (adopted 29 December 1972, entered into force 30 August 1975) 1046 UNTS 120

<sup>30</sup> Resource Conservation and Recovery Act 1976

<sup>31</sup> The Solid Waste Law in China will be discussed in subsequent chapters.

<sup>32</sup> C Nellemann and others (eds), 'The Rise of Environmental Crime - A Growing Threat to Natural Resources Peace, Development and Security' (A UNEP - INTERPOL Rapid Response Assessment 2016) <[https://gridarendal-website-live.s3.amazonaws.com/production/documents/:s\\_document/327/original/RRAcrimrise\\_finaldraft\\_scren.pdf?1490613379](https://gridarendal-website-live.s3.amazonaws.com/production/documents/:s_document/327/original/RRAcrimrise_finaldraft_scren.pdf?1490613379)> accessed February 2021

registered and reported by the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES),<sup>33</sup> most of these occurred in the last decade, which witnessed a 5 to 15 percent growth rate annually.<sup>34</sup> Illegal waste trade has also increased. For example, according to data from UNEP, INTERPOL, and UNOCD, illegal e-waste increased from an estimated 41.8 million metric tons (Mt) in 2014 to 50 Mt by 2018, with a substantial value of 1 billion USD.<sup>35</sup>

The international community and states have tried to control the trade in hazardous and other wastes, but the global illegal plastic pollution trade has seen an 'alarming increase' since 2018.<sup>36</sup> Moreover, there can be a link between crime networks and legitimate pollution management businesses, which are used to cover illegal operations. Criminals sometimes resort to financial crime and engage in document forgery to carry out their global operations.<sup>37</sup>

### **1.2.3 Inadequate Enforcement remains a Key Issue**

Although a plethora of laws and rules address environmental crimes, crimes like illegal transboundary movement of waste still pose severe threats to environmental protection.

The causes of the increase in environmental crime have been widely investigated. The United Nations Environment Program (UNEP) released the first global report on the environmental rule of law in 2019, and the findings show that despite a prolific growth in environmental laws and institutions over the last few decades worldwide,

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<sup>33</sup> Ibid

<sup>34</sup> Ibid

<sup>35</sup> Ibid

<sup>36</sup> International Criminal Policy Organisation (INTERPOL), 'Interpol report alerts to Sharp Rise in Plastic Waste Crime' (27 August 2020 <<https://www.interpol.int/en/News-and-Events/News/2020/INTERPOL-report-alerts-to-sharp-rise-in-plastic-waste-crime#:~:text=The%20report%2C%20entitled%20INTERPOL's%20strategical.via%20multiple%20tr ansit%20countries%20to>> accessed February 2021

<sup>37</sup> Ibid

weakness in enforcement was a global trend exacerbating threats of environmental pollution.<sup>38</sup> According to the UNEP Report, although the substantial growth of environmental laws has been dramatic since 1972, about a 38-fold increase, one of the most significant challenges to mitigating climate change, reducing pollution and preventing species and habitat loss was a failure to implement and enforce the laws fully.<sup>39</sup>

As the report noted, enforcement is one of the key issues of environmental protection. In its basic sense, enforcement is ‘the act of compelling compliance with the law’.<sup>40</sup> Scholars indicate that law enforcement involves a range of actions taken against activities found to be non-compliant, including inspections and issuing citations or fines.<sup>41</sup> The difference between implementation and enforcement is that implementation refers to the process of implementing laws and regulations.<sup>42</sup> In contrast, enforcement focuses on taking appropriate measures against individuals or entities found to be in violation of the law.<sup>43</sup> There is a document from the EU defines enforcement as

*‘the process whereby full compliance with EU law is monitored and secured, and non-compliance is systematically sanctioned by national and supranational courts.’<sup>44</sup>*

However, a UNEP document provides a clear definition of enforcement and how it

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<sup>38</sup> UNEP, ‘Assessment Environmental Rule of Law: First Global Report’ (24 January 2019)

<sup>39</sup> Ibid

<sup>40</sup> BA Garner and others (eds), *Black’s Law Dictionary* (10<sup>th</sup> edn, Thomson West 2014)

<sup>41</sup> A Farmer, *Handbook of Environmental Protection and Enforcement: Principles and Practice* (Earthscan 2007) 9-10

<sup>42</sup> Ibid

<sup>43</sup> Ibid

<sup>44</sup> B Mellar, ‘Transposition, Implementation and Enforcement of Consume Law’ (European Parliament 2009)

differs from compliance.<sup>45</sup> In this document, the term 'enforcement' is defined as meaning:

*'the range of procedures and actions employed by a State, its competent authorities and agencies to ensure that organisations or persons, potentially failing to comply with environmental laws or regulations, can be brought or returned into compliance and/or punished through civil, administrative or criminal action.'*<sup>46</sup>

By contrast, the term 'compliance' is defined as meaning:

*'the state of conformity with obligations, imposed by a state, its competent authorities and agencies on the regulated community, whether directly or through conditions and requirements in permits, licences and authorities.'*<sup>47</sup>

This thesis adopts the UNEP definition of enforcement given above.

Therefore, legal enforcement refers to the application of laws, regulations, and policies by relevant authorities to ensure compliance and deter violations.<sup>48</sup>

Improving enforcement is not only about efficiency but also involves enhancing the effectiveness, consistency, and fairness of enforcement action. Improving enforcement requires addressing various challenges, such as legal loopholes and coordination among enforcement agencies.<sup>49</sup> It involves enhancing the capability of

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<sup>45</sup> UNEP, *Enforcement of Environmental Law: Good Practices from Africa, Central Asia (May 2014)* <<https://wedocs.unep.org/bitstream/handle/20.500.11822/9968/enforcement-environmental-laws.pdf?sequence=1&isAllowed=y>> accessed March 2024

<sup>46</sup> Ibid

<sup>47</sup> Ibid

<sup>48</sup> F Blanc and M Faure, 'Smart Enforcement Theory and Practice' (2018) 20 (4) *European Journal of Law Reform* 78

<sup>49</sup> Ibid

enforcement agencies, improving collaboration and information sharing, ensuring transparency and accountability in enforcement actions, and promoting compliance through targeted interventions.<sup>50</sup>

Legislation and regulations must be in place before enforcement is considered.

However, it is increasingly evident that more is required than merely having laws in place.<sup>51</sup> Considering the need for efficient and effective enforcement, explore what is required to improve administration, civil, and criminal practice, which is essential for optimal enforcement at the national level.<sup>52</sup>

However, enforcement can also be addressed at the international level. The role of international enforcement will be considered, noting the differences with the national legal system.<sup>53</sup>

In the context of the Basel Convention, it has been pointed out that the enforcement of current legislation needs to be more satisfactory.<sup>54</sup> No matter the regime of environmental law, the gap in enforcement has always been raised at the Conference of the Parties (COP).<sup>55</sup> Several enforcement barriers exist. They include the domestic politics of individual states, which may apply different environmental standards on a global scale, or the inherent weakness of international bodies like the

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See also: OECD, 'Enforcement' in OECD, *OECD Public Integrity Handbook* (OECD publishing 20 May 2020) <<https://www.oecd-ilibrary.org/sites/aaf4b595-en/index.html?itemId=/content/component/aaf4b595-en>> accessed April 2024

<sup>50</sup> Ibid

<sup>51</sup> Ibid

<sup>52</sup> Ibid

<sup>53</sup> Andrew T Guzman, 'A Compliance – Based Theory of International Law' (2002) 90 (6) *California Law Review* 1823

<sup>54</sup> N Isarin, 'Overview of the Challenges and Needs of Parties and Various Stakeholders in Preventing and Combating Illegal Traffic in Line with the Requirements of the Basel Convention (Gap Analysis)' (UNEP Report, 2014) <<http://www.basel.int/Implementation/TechnicalAssistance/Partnerships/ENFORCE/Reports/tabid/4529/Default.aspx>> accessed on November 2020

<sup>55</sup> Ibid



United Nations, which need enforcement mechanisms.<sup>56</sup>

According to the first global report, there are many reasons for failing to implement and enforce environmental law, which falls short of what is required to address environmental challenges.<sup>57</sup> These laws sometimes need clearer standards or necessary mandates. Some laws are not tailored to national and local situations and are thus not adaptable to local conditions. Additionally, compared with ministries responsible for economic and natural resource development, ministries responsible for implementing and enforcing environmental laws often lack funding and are politically weak.<sup>58</sup> Although some countries have strengthened environmental law implementation and enforcement, funding for environmental civil society and environmental defenders who support these efforts has increasingly been restricted in several countries.<sup>59</sup>

Governments often prefer seeking economic development rather than strengthening environmental governance. Neither domestic budgeting nor international technical and economic support have been sufficient to help establish powerful environmental institutions, adequately build their capacity, and train national judges in environmental law. Moreover, consistent education about enforcing such environmental laws needs to be improved.<sup>60</sup>

According to the 2019 United Nations (UN) report,<sup>61</sup> factors contributing to weak enforcement include poor coordination across government agencies, weak institutional capacity and corruption, lack of access to information and stifled civil

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<sup>56</sup> DV Sago, 'The Difficulties of Enforcing Global Environmental Law' (Georgetown Environmental Law Review, 1 February 2019) <<https://www.law.georgetown.edu/environmental-law-review/blog/214/>> accessed November 2020

<sup>57</sup> UNEP (n38)

<sup>58</sup> Ibid

<sup>59</sup> Ibid

<sup>60</sup> Ibid

<sup>61</sup> Ibid

engagement.<sup>62</sup> Also, inadequate enforcement was identified in a report issued by UNEP in 2014 which stated that:

*Developing countries and countries in economic transition also deal with other factors that affect optimal institutional function, such as corruption, abuse of office, combatting organised crime and syndicates, and other issues that cause weak enforcement capacity that have nothing to do with legislation.*<sup>63</sup>

Later chapters in this thesis will discuss such factors and consider solutions, including the potential role of networks.

Regarding the waste trade regime, factors responsible for the poor enforcement of hazardous waste laws have been raised in most Conferences of the Parties to the Basel Convention.<sup>64</sup> For instance, a lack of national legal and institutional frameworks, knowledge and skills, and other elements impact the enforcement of the Basel Convention.<sup>65</sup>

In April and May 2019, in the wake of the 14<sup>th</sup> Conference of the Parties to the Basel Convention<sup>66</sup> Held in Geneva, Mr. Marc Chardonens, State Secretary, Swiss Federal Office for the Environment, remarked:

*'According to the second edition of the Global Chemicals Outlook report, a projected doubling of the global chemicals market between 2017 and 2030 would increase global chemical releases, exposures, concentrations and adverse health and environmental impacts unless*

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<sup>62</sup> Ibid

<sup>63</sup> OECD, 'Africa-Asia Expert Meeting on Enforcement of Environmental Law: Inter-regional Technical Cooperation Under the Framework of South-South Cooperation' (Case Stories Review 19-22 May 2014) <<https://www.oecd.org/dac/effectiveness/46080462.pdf>> accessed November 2020

<sup>64</sup> Please see Chapter 3 infra

<sup>65</sup> Ibid

<sup>66</sup> The COP14 of the Basel Convention was the most recent COP when this chapter was written.

*prevailing gaps in the management of chemicals and waste were addressed. Furthermore, the sixth edition of the Global Environment Outlook report indicated that significant gaps remained in evaluating and regulating hazardous chemicals, partly due to insufficient legislation and inadequate implementation.*<sup>67</sup>

However, this is not the first time that enforcement issues, including legislation, inspection, implementation, and other elements regarding enforcement, have been raised.<sup>68</sup>

The UN summarised the various reasons for the challenges in enforcement, which include the fact that environmental legislation itself does not provide adequate safeguards and that enforcement is not a sufficient deterrent in terms of providing stiff penalties that can discourage violations; in addition, there are challenges of inadequate human resources, equipment, financial resources, and institutional capacity.<sup>69</sup> Chapter 5 of this thesis generally discusses legislation, institutions, and enforcement, with particular reference to China and the UK.<sup>70</sup> Also, in Chapters 2 and particularly 6, the thesis considers key themes of enforcement, including deterrence.

#### **1.2.4 The Need for Cooperation Between Countries and Networks**

The relationship between international environmental and national environmental laws is acknowledged mainly in the fact that states enter into international treaties or

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<sup>67</sup> Report of the Conference of the Parties to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal on the work of its fourteenth meeting (2019) UNEP/CHW. 14/28

<sup>68</sup> Many reports of the Conference of the Parties to the Basel Convention have emphasised that it is necessary to improve the enforcement of the Basel Convention. For example, the report on page 112 of COP13 stated: '...legislation and control techniques should be in place in all sectors; currently there is limited enforcement even where relevant regulations exist.'

<sup>69</sup> OECD (n 49)

<sup>70</sup> Please see Chapter 5 *infra*

conventions on the understanding that they agree to enforce such obligations within their national legal systems.<sup>71</sup> It is commonly understood that better enforcement of national environmental laws is required if international environmental law is to be effective.<sup>72</sup>

Global environmental issues were generally considered to include matters of common concern, such as climate change, transboundary environmental pollution, which can be caused by illegal waste trade, and transnational environmental crimes, such as wildlife poaching. For example, regarding environmental crime, Belgium's police believe that one of the most severe crimes is waste trafficking.<sup>73</sup> However, enforcing laws to curtail transboundary environmental crimes requires harmonising the activities of various authorities to prevent loopholes. Indeed, regulators and the police rely on one another for relevant information to conduct necessary enforcement actions.<sup>74</sup>

Building networks to enhance cooperation between states and organisations has become essential in strengthening environmental law enforcement.<sup>75</sup> Over the past decades, environmental agencies have been created by governments, working with foreign ministries and environment ministries to negotiate multilateral agreements.<sup>76</sup> These agencies also undertake new local, regional, national and international initiatives to protect environmental and human health and improve sustainable

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<sup>71</sup> UNEP (n 45)

<sup>72</sup> Ibid

<sup>73</sup> Eurojust, 'Strategy Project on Environmental Crime Report' (November 2014) <[https://www.eurojust.europa.eu/sites/default/files/Publications/Reports/environmental-crime-report\\_2014-11-21-EN.pdf](https://www.eurojust.europa.eu/sites/default/files/Publications/Reports/environmental-crime-report_2014-11-21-EN.pdf)> accessed November 2020

<sup>74</sup> Ibid

<sup>75</sup> F Geysels and N Johnson, *Environmental Networking Handbook* (Regional Environmental Centre, Budapest 2013)

<sup>76</sup> For example, the Basel Convention and the Montreal Protocol on Substances that Deplete the Ozone Layer

development.<sup>77</sup> Collaborative approaches have been taken involving governments, environmental agencies, the judiciary, and international organisations. Environmental regulators often make efforts to promote the rule of law and good governance to advance sustainable development objectives. These achievements have relied on significant collaboration between individuals, groups, agencies, organisations, and authorities.<sup>78</sup>

'Network' is a term widely employed across various disciplines, including political science, computer science, and neurobiology. The scientific literature provides a plethora of approaches for categorising networks. It is, therefore, necessary to narrow the scope to the networks important in environmental crime at the international and regional levels. In the context of environmental law and politics, a network is defined as a set of non-hierarchical and interdependent relationships, linking actors who share common interests and exchange resources to pursue these interests, acknowledging cooperation as the best way to achieve common goals.<sup>79</sup>

In addition, scholars in environmental governance such as Gunningham have responded to the growth of characterised neoliberalism by the hollowing out of the state, privatisation, deregulation, and 'regulatory capitalism'. Consequently, government agencies are no longer the sole regulatory bodies, and governmental behaviour represents a singular regulatory mechanism. Instead, Gunningham conceptualises a new governance structure with markets utilised as novel regulatory instruments, accompanied by the proliferation of non-state regulatory bodies and

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<sup>77</sup> J Gerardu and others, 'Enforcement Networks: The Critical Role of Collaboration in Environmental Protection' in G Pink and R White, *Environmental Crime and Collaborative State Intervention* (Palgrave Macmillan 2016) 46-47

<sup>78</sup> Ibid

<sup>79</sup> K Klaas and L Smith, 'Networks and NGOs Relevant to Fighting Environmental Crime' (Ecologic Institute 2015) <[www.efface.eu](http://www.efface.eu)> accessed March 2024

governance networks, facilitating the expansion of regulation.<sup>80</sup>

### **1.3 Research Question(s) and Design**

The essential question in this research is: how best, if at all, can networks enhance environmental law enforcement with particular reference to the Basel Convention on Transboundary Shipment of Hazardous Waste? The research focused on the following sub-questions to answer this central question.

First, what are the international and national requirements contained in the Basel Convention? Second, how and why is enforcement currently inadequate? Third, how has environmental law enforcement operated generally, and what are the key themes on which successful enforcement regimes depend? Fourth, how does China (as a large developing country and historically a waste importer) and the UK (as a developed state and historically a waste exporter) compare in terms of their approaches to enforcing environmental law? Furthermore, what is the extent to which the key themes are implemented in each and what are their specific approaches to enforcing Basel controls? Lastly, what is the nature of enforcement networks strategically and operationally? How can they contribute to enhancing enforcement generally, particularly around the three key themes and, more specifically, in relation to hazardous waste transboundary movement issues?

The purpose of this research is to make proposals aiming to explore networks in environmental law enforcement as a means of improving the enforcement of the Basel Convention. The thesis makes a distinct contribution to knowledge by demonstrating the potential of networks to enhance the enforcement of the Basel Convention. Based on the key themes of enforcement, the thesis seeks to establish that networks can assist in addressing those key themes.

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<sup>80</sup> N Gunningham, 'Environment Law, Regulation and Governance: Shifting Architectures' (2009) 21 (2) *Journal of Environmental Law* 179

## 1.4 Underlying Theories and Literature Review

### 1.4.1 Literature on Enforcement - What Are the Key Themes?

Enforcement has been defined as: *'the range of procedures and actions employed by a State, its competent authorities and agencies to ensure that organisations or persons, potentially failing to comply with environmental laws or regulations, can be brought or returned into compliance and/or punished through civil, administrative or criminal action.'*<sup>81</sup> According to the literature on environmental law enforcement, enforcement is mainly conducted by establishing adequate environmental laws and regulations and by competent authorities and agencies. Thus, legislation and institutions must be considered when discussing enforcement.

Regulators play a crucial role in the economy and society. In the policy arena, regulators play an active role in implementing policies.<sup>82</sup> There is broad consensus about maintaining regulatory neutrality.<sup>83</sup> Extant literature shows that independence is one of the key themes or requirements for capable environmental regulatory agencies; the regulator decides how to safeguard the public and the environment given the resources it has. Independence is meaningful for regulatory agencies in order to get rid of political interference and administrative influence and to enable them to exercise their powers objectively and fairly. The independence of the regulator requires the independence of personnel, authority, and funds, which is relative, given that regulators form part of the state administrative apparatus.<sup>84</sup>

Independent regulatory authorities can be beneficial from a social point of view. In

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<sup>81</sup> UNEP (n 45)

<sup>82</sup> OECD, *Being an Independent Regulator, The Governance of Regulators* (Online edn, OECD Publishing July 2016)

<sup>83</sup> OECD, 'Independence of Regulators and Protection against Under Influence' (2016) <<https://www.oecd.org/gov/regulatory-policy/independence-of-regulators.htm>> accessed November 2021

<sup>84</sup> OECD (n 82)

Europe, independent regulatory agencies have played an important role in regulating diverse areas, such as protecting civil society, competition, and media.<sup>85</sup> Independent regulators have been influential in regulating network industries in the US.<sup>86</sup> However, the independence of regulators does not mean that they are anonymous, secluded or above the law.<sup>87</sup> Regulators cooperate or interact with other authorities and agencies. For example, ministries are responsible for developing policies for the regulated sectors and interacting with regulators on enforcement; parliaments approve policies and normally evaluate their implementation.<sup>88</sup>

The second theme of enforcement can be considered in the context of a 2013 workshop in Buenos Aires, Argentina, for Central and South America on prosecuting the illegal traffic of hazardous wastes under the Basel Convention.<sup>89</sup> In this workshop, challenges were identified, including weaknesses in national legislation and institutions, a lack of adequate penalties and clear procedures, and the need for improved national cooperation and international coordination.<sup>90</sup> According to the analysis of the challenges, participants underscored that illegal traffic cases are complex and require substantial capacity. If an investigation is improperly conducted, that may mean that an enforcement case cannot ultimately be brought forward.<sup>91</sup> Thus, capacity building for regulators, including training, access to adequate resources, such as laboratories to identify wastes, and access to technical

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<sup>85</sup> Ibid

<sup>86</sup> KS Johannsen, 'Regulatory Independence in Theory and Practice – a Survey of Independent Energy Regulators in Eight European Countries' (AKF Forlaget February 2003) <<https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.687.7737&rep=rep1&type=pdf>> accessed November 2020

<sup>87</sup> OECD (n 82)

<sup>88</sup> Ibid

<sup>89</sup> UNEP, 'Workshop on the prosecution of illegal traffic helps assess challenges in enforcing the Basel Convention' (28-29 August 2013) <<http://www.basel.int/Default.aspx?tabid=3350>> accessed February 2021

<sup>90</sup> Isarin (n 54)

<sup>91</sup> Ibid



knowledge, is necessary.<sup>92</sup>

There is considerable literature which stresses that regulators need to explore a range of approaches to encourage capacity building.<sup>93</sup> Because the behaviour of polluters may be 'sneaky' and pollution results are complicated, regulatory capacity has been highlighted as a critical factor influencing regulatory effectiveness.<sup>94</sup> At the international level, scholars<sup>95</sup> have argued that the enforcement mechanisms of international law have marginal capacity and are limited in their power to enforce international rules; this includes the International Court of Justice (ICJ).<sup>96</sup> However, it is widely believed that enforcing their decisions is not the business of ICJ; literature suggests that the ICJ possesses the authority to enforce its judgments and is even mandated by law to engage in monitoring and implementing its decisions actively.<sup>97</sup>

The literature indicated that, regarding national enforcement capacity, China and Japan faced the same challenge: a lack of adequate regulatory capacity.<sup>98</sup> Certain capacity problems, such as a lack of technical knowledge and funds, affect the effectiveness of environmental law enforcement, especially in developing

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<sup>92</sup> Ibid

<sup>93</sup> Neil Gunningham, 'Compliance, Enforcement and Regulatory Excellence' (RegNet Research Paper No. 124, 8 March 2017) <<https://www.law.upenn.edu/live/files/4717-gunningham-ppr-bicregulatordiscussionpaper-06>> accessed November 2020

OECD, *Institutional Capacity for Better Regulation' in OECD, Better Regulation in Europe: The Netherlands* (OECD Publishing 2010)

M Lodge and K Wegrich, *The Problem-Solving Capacity of the Modern State* (Online edn, Oxford Academic 18 December 2014) <<https://doi.org/10.1093/acprof:oso/9780198716365.001.0001>> accessed November 2020

<sup>94</sup> P Lei and others, 'Determinants and Welfare of the Environmental Regulatory Stringency Before and After Regulatory Capture' (2017) 166 *Journal of Clean Production* 107

<sup>95</sup> Mary Ellen O'Connell, 'Enforcement and the Success of International Environmental Law' (1995) 3 (1) *Indiana Journal of Global Legal Studies* 47

<sup>96</sup> Ibid

<sup>97</sup> M Al-Qahtani, 'The Role of the International Court of Justice in the Enforcement of Its Judicial Decisions' [2002] 15 (4) *LJIL* 781

<sup>98</sup> Lei (n 94)

countries.<sup>99</sup>

Therefore, regulatory capacity can be defined broadly as the exercise of predictable and putting formal provisions into practice. It involves how resources are allocated to ensure that the enforcement systems and mechanisms function effectively, and this will include adequate funding and information capture, among other things.<sup>100</sup>

Empirical studies of enforcement show that two questions have been asked: the first one is how the regulatory agency enforces its regulations, and the second question is, does more enforcement lead to an increase in compliance or improvement in the environment?<sup>101</sup> Studies measuring enforcement and compliance have documented a deterrent effect in adequate enforcement, including general and specific deterrence.<sup>102</sup> General deterrence means the effect of an enforcement activity on the behaviour of a large number of persons or firms, while specific deterrence refers to the effect that an enforcement activity targeting a particular firm has on that firm's subsequent environmental performance.<sup>103</sup> Whether the deterrence is general or specific, enforcement agencies would expect a decrease in pollution due to deterrence.<sup>104</sup>

According to classic deterrence theory, successful enforcement enhances compliance through a combination of the certainty and the severity of punishment.<sup>105</sup> However, criminological literature on deterrence supports the point that sanctions are less important than inspections because deterrence is impossible without frequent

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<sup>99</sup> MG Faure, 'Enforcement Issues for Environmental Legislation in Developing Countries' (Working Paper No.19 for United Nation University, Institute for New Technologies March 1995)

<sup>100</sup> Lodge (n 93)

<sup>101</sup> MA Cohen, 'Empirical Research on the Deterrence Effect of Environmental Monitoring and Enforcement' (2000) 4 (30) *Environmental Law Reporter* 10245

<sup>102</sup> Lodge (n 93)

<sup>103</sup> Cohen (n 101)

<sup>104</sup> *Ibid*

<sup>105</sup> GS Becker, 'Crime and Punishment: An Economic Approach' [1968] 76 (2) *Journal of Political Economy* 169

inspection.<sup>106</sup> Studies show that certainty of punishment drives deterrence, and that increasing certainty will produce more effective enforcement.<sup>107</sup>

Key themes can be identified based on a review of the literature on enforcement. These themes provide valuable insights into how to enhance the enforcement of environmental law. Therefore, when considering strategies to improve enforcement, it is essential to analyse how to strengthen these key themes effectively.

#### 1.4.2 Literature on Networks and Their Value

In the twenty-first century, a vital feature of the world order is government networks, that is because criminals such as terrorists, drug dealers, poachers, and traffickers of women and children all operate through global networks.<sup>108</sup> To combat global crime and address common problems internationally, government officers, including police investigators, legislators, regulators, and judges, increasingly form networks to exchange information and coordinate activities.<sup>109</sup> For example, in the global economy regime, the Group of Twenty (G20) is a network established by finance ministers from twenty countries to prevent future financial crises.<sup>110</sup> Besides the global economy, other networks are built to improve cross-border environmental policies.<sup>111</sup> For instance, environmental agencies in the US, Mexico, and Canada established an environmental enforcement network to improve the efficiency of

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<sup>106</sup> N Liu and others, 'Beyond Deterrence Enforcement Styles: Behavioural Institutions of Chinese Environmental Law Enforcement Agents in a Context of Challenging Inspections' (2018) 96 (3) *Legal Studies Research Series* 497

<sup>107</sup> DS Nagin, 'Deterrence in the Twenty-First Century' (2013) 42 (1) *Crime and Justice* 199

<sup>108</sup> Moises Naim, 'Five Wars of Globalisation' (November 2009) *Foreign Policy*  
<<https://foreignpolicy.com/2009/11/03/five-wars-of-globalization/#:~:text=These%20are%20the%20fighters%20against,property%2C%20people%2C%20and%20money.>> accessed February 2021

<sup>109</sup> Anne-Marie Slaughter, *A New World Order* (Princeton University Press 2004) 14-16

<sup>110</sup> '二十国集团 [G20]', (Ministry of Foreign Affairs of the People's Republic of China 2020)  
<[https://www.fmprc.gov.cn/web/wjb\\_673085/zjig\\_673183/gjjjs\\_674249/gjzzyhygk\\_674253/wsgjt\\_674255/gk\\_674257/>](https://www.fmprc.gov.cn/web/wjb_673085/zjig_673183/gjjjs_674249/gjzzyhygk_674253/wsgjt_674255/gk_674257/>) accessed February 2021

<sup>111</sup> Slaughter (n 109) 2

environmental regulation across these countries, particularly Mexico.<sup>112</sup>

Each network has specific objectives and activities, which depend on its focus areas, members, and development. However, networks also have several common features. Networks expand the scope of regulation, build trust, and connect their members.<sup>113</sup> Members exchange information regularly by activities and develop good practice databases.<sup>114</sup> In the field of justice, networks may build their databases on different solutions to common legal issues,<sup>115</sup> for example, the European Commission for Democracy through Law established a website to publish a bulletin for constitutional cases regularly and collect case studies on constitutional courts worldwide for research.<sup>116</sup> Moreover, networks provide technical assistance and training to regulators, judges, or legislators from less developed countries.<sup>117</sup>

This thesis's theoretical framework adopted Slaughter's theory, which is presented in her book 'A New World Order'.<sup>118</sup> The component institutions of the state include legislators, regulators, and judges.<sup>119</sup> Slaughter believes that states are disaggregating. Such disaggregated states mean that the needs and capacity of different domestic government institutions to engage in activities beyond their borders are rising.<sup>120</sup> Institutions are all reaching out beyond national borders, and their domestic job has a growing international dimension.<sup>121</sup> It means legislators seek the best ways to frame and pass legislation by consulting; regulators need to cooperate across borders to pursue regulatory targets; and judges negotiate with their

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<sup>112</sup> This is described more fully in Chapter 7

<sup>113</sup> Slaughter (n 109) 9

<sup>114</sup> Ibid

<sup>115</sup> Ibid 61-62

<sup>116</sup> Ibid 64

<sup>117</sup> Ibid

<sup>118</sup> Ibid

<sup>119</sup> Ibid 31

<sup>120</sup> Ibid 12

<sup>121</sup> Ibid 31

counterparts from other countries to solve transnational cases.<sup>122</sup>

Slaughter said:

*'A disaggregated world order would be a world latticed by countless government networks. These would include horizontal networks and vertical networks; networks for collecting and sharing information of all kinds, for policy coordination, for enforcement cooperation, for technical assistance and training, perhaps ultimately for rule making. Taken together, they would provide the skeleton or infrastructure for global governance.'*<sup>123</sup>

According to Slaughter's theory, business, such as finance, economy, and criminal activities, are not only developed in an individual state but also between states. Hence, governments need to be able to use soft power, such as information and persuasion, in response to globalisation. 'Government networks' can be understood as a model of global governance.<sup>124</sup> For example, OECD is a quintessential transgovernmental regulatory network whose primary function is to convene government officials to find the best way to solve a common economic or regulatory problem in specific fields.<sup>125</sup> Such government networks can help solve the dilemma of governance by, first, providing a flexible and relatively fast approach to dealing with international and regional affairs affecting members, second, coordinating or harmonising the actions of its member states, and third, advocating and monitoring different solutions to international and regional issues.<sup>126</sup>

Hence, with frequent international cooperation and negotiations, the need and

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<sup>122</sup> Ibid 12

<sup>123</sup> Ibid 16

<sup>124</sup> Ibid

<sup>125</sup> Ibid 46

<sup>126</sup> Ibid 45-49

capacity of different national government agencies to engage in cross-border activities has increased. In addition to regulators or law enforcement agencies in pursuit of targets in other countries, judges negotiate with foreign colleagues to achieve settlements in complex transnational cases, and legislators from different countries discuss better ways to create and adopt legislation that affects human rights or the environment.<sup>127</sup>

Government networks can be divided into horizontal networks and vertical networks. Horizontal networks refer to the connections between counterparts of national officials across borders, such as officials of national environmental agencies. Vertical government networks refer to networks formed between national government officers and counterparts from institutions that do not belong to any state, such as the European Court of Justice (ECJ) and its relationship with national courts.<sup>128</sup> Vertical networks may also refer to networks within a state. For example, vertical networks are dominant in the management of environmental institutions in China.<sup>129</sup>

According to the requirement from ‘Practice Policy Guidance on Vertical Management Reform of China’s Environmental Institutions below the Provincial Level’, the central government or a government department at a higher level has a vertical leadership relationship with its dispatched agencies or branches on staffing, finance and supplementary matters.<sup>130</sup>

Furthermore, Slaughter classified networks into three types: information networks, harmonisation networks, and enforcement networks. Chapter 7 discusses and

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<sup>127</sup> Ibid

<sup>128</sup> Ibid

<sup>129</sup> PF Ao and others, ‘Dominant Management Modes of China’s Environmental Institutional Reform towards a Vertical Structure’ (2016) 42 (6) *Environmental Protection Science* 33

<sup>130</sup> 关于省以下环保机构监测监察执法垂直管理制度改革试点工作的指导意见 [Guiding Opinions on the Pilot Work of the Reform of Vertical Management System for Monitoring, Supervision, and Law Enforcement of Environmental Protection Agencies Below the Provincial Level] (General Office of the Central Committee 2016)  
See also Ao (n 129)

analyses these three networks in detail. However, as mentioned above, different types of networks could also be classified as horizontal or vertical networks.<sup>131</sup>

Horizontal informational networks could be understood as bringing regulators, judges, or legislators together to exchange information and identify and refine best practices. Moreover, such information exchange can be the foundation of technical assistance and training by governmental officers of one state to governmental officers of another state.<sup>132</sup> Horizontal harmonisation networks gather regulators to ensure regulation is consistent with the common management standard in a specific area. Horizontal enforcement networks arise due to the relative lack of capacity to enforce the law through regulatory agencies, courts of justice, or governmental officers. Notably, these enforcement networks inevitably involve significant information exchange and may involve various types of assistance to support enforcement. In addition, legislators can also connect to draft complementary laws to avoid enforcement gaps or inconsistencies in regulatory regimes.

Although the number of horizontal networks is enormous, vertical networks also play a significant role.<sup>133</sup> A close association between judges, regulators, legislators, and other government counterparts is a vertical government network; for example, the EU legal system devolves the task of enforcing the judgements of the Court of Justice of the EU to judges of EU states instead of EU member states. However, traditional international courts, such as the Hague International Court of Justice, issue judgements to states for enforcement.<sup>134</sup> In addition to judges, the EU Commission established vertical administrative networks between its antitrust authority and national antitrust regulators. These networks enable the European Commission (EC) to oblige national authorities to implement EU rules on their

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<sup>131</sup> Slaughter (n 109) 45-49

<sup>132</sup> Ibid

<sup>133</sup> Ibid

<sup>134</sup> Ibid

national traditions.<sup>135</sup> Vertical networks can function as enforcement networks, harmonisation networks, and information networks.<sup>136</sup>

Furthermore, Slaughter is one of many scholars who pay attention to networks of governance. There is other literature on networks, such as the theory of Rahkyun Kim, who summarised that global governance incorporates three characteristics: 'fragmentation', 'polycentricity' and 'complexity'. However, these concepts and structures do not exist in isolation. Typically, all the mentioned structural characteristics coexist within various systems of international institutions. Many of these systems display traits such as being sparse, unevenly distributed, and modular simultaneously. Hence, relying solely on one of the three concepts would lead to limited results. Instead, combining these concepts within a comprehensive analytical framework is necessary to adequately explain the emergence and development of global governance structures and their impact on performance. In this context, the network holds promise.<sup>137</sup>

When we shift our attention to enforcing environmental laws, various complexities can arise, requiring nuanced enforcement responses across an increasing number of issues.<sup>138</sup> Environmental regulators may partner with non-governmental organisations (NGO), non-regulatory bodies, and civil society organisations as a component of their regulatory efforts.<sup>139</sup> For example, the Partnership for Action Against Wildlife Crime (PAW) in Scotland was established to protect wildlife in Scotland. It comprises the police, land managers, conservation groups, and other

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<sup>135</sup> Council Regulation (EC) No 1/2003 of 16 December 2002 on the Implementation of the Rules on Competition Laid Down in Article and 82 of the Treaty (Text with EEA relevance) (2003) OJ L 1

<sup>136</sup> The three different types of networks are explained more fully in Chapter 7

<sup>137</sup> RE Kim, 'Is Global Governance Fragmented, Polycentric, or Complex? The State of the Art of the Network Approach' (2020) 22, *International Studio Review* 903

<sup>138</sup> For example, electronic waste pollution, carbon fraud

<sup>139</sup> R White, 'NGO Engagement in Environmental Law Enforcement: Critical Reflections' in R White, *Transnational Environmental Crime* (Routledge 2013)



NGOs.<sup>140</sup>

The networks on environmental law enforcement bring various forms of environmental regulatory entities and their members together to share expertise, experience, and information to help refine environmental enforcement strategies and collaborations.<sup>141</sup> The role of networks in addressing environmental crimes involves cooperation between stakeholders and operational aspects, advice and influence on policy decisions, development of best practices and guidance, and sharing of information and experience.<sup>142</sup>

In addition, regulators and regulatory associations in Europe and globally, such as European Union Networks for the Implementation and Enforcement of Environmental Law (IMPEL) or International Networks for Environmental Compliance and Enforcement (INECE), are becoming increasingly more judicious in their choice of experts to deliver projects such as the IMPEL Claustrifrontier Shipment of Waste (IMPEL-TFS) Seaport project, basing selection more on the skills and knowledge of individual experts or the team rather than solely on cost or reputation of a particular expert.<sup>143</sup>

Specifically, on the role of networks in the illegal trade in hazardous waste, scholars such as Bisschop and Morganti provide the importance of networks in transboundary waste movement control. Bisschop stated that it is essential to implement effective measures to enhance the identification and tracking of waste and equip law enforcement agencies with customised and technological resources to conduct their

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<sup>140</sup> PAW Scotland, 'Wildlife Crime' (17 August 2018)

<<https://www.webarchive.org.uk/wayback/archive/20180817143057/www.gov.scot/Topics/Environment/Wildlife-Habitats/paw-scotland>> accessed February 2021

<sup>141</sup> Grant Pink, 'Getting the Maximum Benefit from Environmental Enforcement Networks, Thematic Issue: Environmental Compliance Assurance and Combating Environmental Crime' (2016) 56 European Commission Science for Environmental Police

<sup>142</sup> Klaas (n 79)

<sup>143</sup> G Pink and R White, *Environmental Crime and Collaborative State Intervention*, (Palgrave Macmillan 2016) 146

inspection activities. According to the nature of transnational crime, international collaboration and timely exchange of information are crucial to combating this type of crime. This entails facilitating efficient information sharing and standardised data exchange between countries while also fostering the establishment of robust formal and informal networks among agencies operating in relevant sectors.<sup>144</sup>

Therefore, networking can be understood as cooperation and coordination.<sup>145</sup>

Evidence shows that failure to adopt coordination mechanisms can derail enforcement efforts and result in laws and regulations needing to be adequately enforced.<sup>146</sup>

The function of networks and their contribution will be discussed throughout this thesis, especially in Chapter 7.

### **1.4.3 Literature on the Merits of the Basel Convention System**

There has been an increased awareness of the negative impacts of hazardous waste on human health and the environment since the 1970s. As a result of these concerns and the growth in trade in hazardous waste, the Basel Convention was signed by 35 states in 1989.<sup>147</sup> Ratification of the Basel Convention was also listed in Agenda 21 as one of the overall targets for achieving sustainable development.<sup>148</sup>

The Basel Convention set out three key aims: (1) a reduction in the amount of

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<sup>144</sup> L Bisschop, 'Illegal Trade in Hazardous Waste' in L Elliott and WH Schaedla, *Handbook of Transnational Environmental Crime*, (Edward Elgar Publishing 2016) 190-207; See also: M Morganti and others, 'Illicit Waste Trafficking and Loopholes in the European and Italian Legislation' (2018) 26 *European Journal on Crime Policy and Research* 105

<sup>145</sup> RH Verdier, 'Transnational Regulatory Networks and Their Limitation' (2009) 34 (1) *Yale Journal of International Law* 113

<sup>146</sup> UNEP (n 38)

<sup>147</sup> A Andrews, 'Beyond the Ban - Can the Basel Convention Adequately Safeguard the Interests of the World's Poor in the International Trade of Hazardous Waste?' (2009) 5 (2) *Law Environment and Development Journal* 167

<sup>148</sup> Agenda 21 (1992) UN Doc. A/CONF. 151 Rev.1 (vol.1)

hazardous waste generated; (2) a reduction in the amount of transboundary movement of hazardous waste; and (3) the promotion of ‘environmentally sound management’.<sup>149</sup> Chapter 2 of this thesis describes the development of the Basel Convention and explains its limitations. While the Basel Convention contributes to environmental protection in relation to the waste trade regime, its effectiveness can be questioned.<sup>150</sup>

Scholars<sup>151</sup> have lamented that the United States has yet to become a party to the Convention. The United States is one of the largest generators of hazardous waste in the world, accounting for around three-quarters of the world's annual production.<sup>152</sup> However, the US Congress has not yet passed domestic legislation to implement the Basel Convention, so the US domestic regime is presently unable to meet its obligations.<sup>153</sup> For example, the US federal agencies would be unable to prevent exports to a non-party or re-import of waste that has been exported in violation of the principle of the ESM.<sup>154</sup> In the case of *Greenpeace USA v Stone*, the court held that the Basel Convention has no implementing legislation and is not self-executing. This court has no standards or procedures to judicially enforce the treaty, and therefore, the plaintiff's claim under the Basel Convention must fail.<sup>155</sup>

Besides the extrinsic weakness of the Basel Convention caused by US non-participation, there are several major weaknesses that result from intrinsic factors. A typical example is that the Basel Convention lacks an enforcement mechanism to

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<sup>149</sup> Andrews (n 147)

<sup>150</sup> K Raubenheimer and A Mcilgorm, ‘Can the Basel and Stockholm Conventions provide a Global Framework to Reduce the Impact of Marine Plastic Litter?’ (2018) 96 *Marine Policy* 285

<sup>151</sup> Ibid

<sup>152</sup> A Cobbing and others, *Lead Astray: The Poisonous Lead Battery Waste Trade* (Greenpeace March 1994) 36

<sup>153</sup> J Kitt, ‘Waste Exports to the Developing World: A Global Response, *Georgetown International*’ (1995) 485 *Environmental Law Review* 512

<sup>154</sup> Ibid

<sup>155</sup> *Greenpeace USA v Stone* [1990] 748 F Supp 749 (D Haw 1990);  
The US is not a member state of the Basel Convention.

ensure that violators of hazardous waste trade rules are held fully accountable for all damages from their non-compliance.<sup>156</sup> Although the Basel Protocol on Liability and Compensation (Basel Protocol) was adopted in 1999, it is not yet in force. Additionally, researchers have argued that the Convention preserves hazards and does not legally mandate their destruction; rather, it only offers non-binding disposal guidelines.<sup>157</sup> Furthermore, several studies have argued that a weakness in the Basel Convention is the general and often ambiguous definition of fundamental terms, such as 'hazardous waste' and 'ESM'.<sup>158</sup> Such unsettled definitions in the Basel Convention resulted in each party making hazardous waste determinations and sampling methodologies in a rather uncoordinated manner.<sup>159</sup> Moreover, the scope of the Basel Convention should be expanded to include radioactive and other excluded forms of hazardous waste.<sup>160</sup> The Convention makes illegal hazardous waste traffic a criminal issue. However, it should arguably provide more enforcement provisions to recognise the need for different responses to different types of illegal hazardous waste traffic activity.<sup>161</sup>

#### **1.4.4 Gaps in the Literature**

Most literature focuses on the intrinsic problems with the Basel Convention. Little attention is paid to the extrinsic issues of enforcing the Convention in and between states in practice. Furthermore, although there is literature on networks generally, the potential value of networks in addressing enforcement issues under the Convention has yet to be considered. This thesis attempts to fill those gaps (1) by seeking to

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<sup>156</sup> Z Lipman, 'Trade in Hazardous Waste: Environmental Justice Versus Economic Growth' [2002] Capacity Building for Environmental Law in the Asian and Pacific Region 464

<sup>157</sup> M Islam, 'The Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and Their Disposal: Critical Analysis' (2020) 1 (2) International Journal of Multidisciplinary Research and Growth Evaluation 11

<sup>158</sup> Please see Chapter 3 for a discussion of definition issues in the Basel Convention.

<sup>159</sup> DP Hackett, 'Assessment of Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal' (1989) 5 Am. UJ Int'l L. & Pol'y 315

<sup>160</sup> Lipman (n 156)

<sup>161</sup> Islam (n 157)

establish the key themes which serve to make enforcement effective; (2) applying those themes in an analysis of enforcement (particularly relating to the Convention) in the context of two states: one historically a developed state and a major waste exporter – the UK, and the other historically a developing state and a major waste importer – China; and (3) exploring the extent to which networks can serve to enhance enforcement in relation to the key themes in and between states, particularly those which are the focus of this study.

## **1.5 Methodology**

The research for this PhD thesis utilised a combination of research methodologies, notably doctrinal research, comparative research, and socio-legal research.

### **1.5.1 Doctrinal Research**

According to Hutchinson's theory, legal doctrine consists of a series of legal concepts or principles. Hence, doctrinal legal research refers to the systematic and meaningful enquiry into legal concepts, principles, values, and existing legal texts, including statutes and case laws.<sup>162</sup> In other words, 'doctrinal legal research here is analytical study of existing law, related cases and authoritative materials as a whole, on some specific matter.'<sup>163</sup>

Chapter 3, which discusses the Basel Convention, is based on doctrinal research, which involves analysis of relevant international legal texts. This chapter explains the background, development and key provisions of the Basel Convention. Moreover, other relevant legal regimes dealing with the transboundary movement of hazardous wastes, including the Lomé Convention and the Bamako Convention, are considered. The analysis focuses firstly on the main content of the Basel Convention, in

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<sup>162</sup> T Hutchinson and N Duncan, 'Defining and Describing What We Do: Doctrinal Legal Research' (2012) 17 Deakin. L Rev 84

<sup>163</sup> A Kharel, 'Doctrinal Legal Research' (2018) 1 SSRN Electronic Journal  
<[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3130525](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3130525)> accessed February 2021

particular, specific items such as the Basel Ban, Prior Informed Consent (PIC), and Environmentally Sound Management (ESM). Secondly, it considers how the Conference of the Parties of the Basel Convention has developed the Convention, enhanced the general understanding of the Convention and highlighted the drawbacks of the regime.

There is also partial doctrinal research in Chapters 2 and 4 to Chapter 6. Other relevant environmental enforcement legal regimes involving transboundary traffic are considered in Chapter 2, for example, the CITES. How the Basel Convention is enforced at the international level is the key issue in Chapter 4. There is also doctrinal research in Chapter 5 analysing national legislation and institutions in China and the UK, particularly those relating to the transboundary movement of hazardous wastes. Most of Chapter 6 is social and legal research. However, it also contains a certain doctrinal analysis of the key themes of law enforcement.

### **1.5.2 Comparative Research**

Comparative legal research is the application of comparative techniques to the field of law.<sup>164</sup> Indeed, ‘comparative law aims at reaching ‘higher grounds’ in the sense that it is not limited to the understanding of another legal system, and the better understanding of the researcher’s own legal system.’<sup>165</sup>

Comparative research is principally employed in Chapters 2, 5 and 6 and is carried out in three ways: between national and international law, between differing international regimes and between two national systems. The first comparison, which is essentially doctrinal, is between international and national environmental law enforcement, with the comparison involving the nature, institutions and enforcement

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<sup>164</sup> ML Paris, ‘The Comparative Method in Legal Research: The Art of Justifying Choices’ in L Cahillane and J Schweppe (eds), *Legal Research Methods: Principles and Practicalities* (Clarus Press 2016)

<sup>165</sup> WJ Kamba, ‘Comparative Law: A Theoretical Framework’ (1974) 23 (3) *The International and Comparative Law Quarterly* 485

of environmental law at the different levels. Secondly, the comparison also extends to comparing differing international regimes dealing with transboundary trade issues, including CITES and the Basel Convention, to establish their relative intrinsic merits. That is doctrinal in nature. Finally, the comparative approach is employed to compare different national enforcement regimes in the UK and China, both intrinsically and how they operate in practice, particularly in the context of the implementation of the Basel Convention. That comparative analysis is in part doctrinal but also substantially socio-legal. China and the UK were chosen for the comparison to assess similarities and differences in approach to enforcing the same international instrument, the Basel Convention, at the national level and in the context of China being a significant developing state which has largely been an importer of waste and the UK being a significant developed state which has been and continues to be an exporter of waste. The principal comparison is also focused on the three key themes of enforcement in Chapter 6. However, significant background consideration is required in terms of legislation, regulatory authorities, and enforcement mechanisms. It approaches enforcement in Chapter 5 to provide the reader with a sufficient understanding of the discussion and analysis in Chapter 6.

Whilst such a comparison may at first glance seem an unlikely one because of the differences in the scale of the countries, the differences between the common and civil law systems and the social, political and economic conditions, there is validity in comparing how differing legal systems enforce the same international convention. Indeed, both states are members of some of the same networks seeking to promote more effective enforcement, such as INECE (discussed more fully in Chapter 7). In addition, China and the UK are unitary states with strong central systems, albeit with more scope for variation in the UK because of devolution to Scotland, Wales and Northern Ireland. Furthermore, Chinese environmental law has been modelled to a significant extent on Western environmental law, albeit there are distinctive Chinese

characteristics.<sup>166</sup>

Chapter 7 also employed the comparative research method in relation to different types of networks, namely, information networks, harmonisation networks and enforcement networks. This is partly doctrinal but also socio-legal in that the manner in which networks operate in practice is considered in addition to their formal functions.

### **1.5.3 Social-Legal Research**

A significant methodology within the thesis is socio-legal research, where the science of law meets society.<sup>167</sup> This method is used in this thesis to consider how law operates in practice. As noted, law is analysed from both a comparative doctrinal and a comparative socio-legal perspective. The socio-legal method is used in most chapters. Chapter 2 can be found in the discussion of enforcement practices, the carrot and stick approaches, and responsive regulation. Also, the discussion of key themes of enforcement follows the socio-legal method of enforcement practices.

In addition, the socio-legal research method is applied in Chapter 2 to show how international enforcement mechanisms, including financial assistance, non-compliance mechanisms, and dispute settlement systems, operate in practice. This analysis naturally leads to a discussion of the role of networks in such enforcement mechanisms. Chapter 4 also illustrates the enforcement mechanisms in the Basel Convention regime at the international level to emphasise that despite the non-compliance mechanism, dispute settlement or civil or state liability cooperation and networks, there is a need to improve the enforcement effectiveness.

The socio-legal method in Chapter 5 is comparative in nature. The differences in

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<sup>166</sup> PA Barresi, 'The Chinese Legal Tradition as a Cultural Constraint on the Westernization of Chinese Environmental Law and Policy: Toward a Chinese Environmental Law and Policy Regime with More Chinese Characteristics' (2013) 30 (3) *Pace Environmental Law Review* 1156

<sup>167</sup> D Feenan, *Exploring the 'Socio' of Socio-legal Studies* (Palgrave Macmillan 2013) 3



legislation and institutions between China and the UK result in differences in enforcement practices in these two countries. Enforcement practices are analysed in Chapter 6 according to the three key themes. This leads to a comparative analysis between China and the UK, exploring the role of networks in enforcement practices in the two countries.

The discussion in Chapter 7 is mainly based on socio-legal research. The practice of information networks is considered in the context of INECE's projects and activities, harmonisation networks in the context of IMPEL's projects and activities, and enforcement networks in the context of specific cases implemented and enforced by INECE and IMPEL. The research findings provide evidence that networks can engender more effective enforcement of environmental laws and regulations, especially the Basel Convention.

Although most of the socio-legal research methods employed involve reviewing published materials, I also had informal contacts with the staff of the Scottish Environment Protect Agency (SEPA), the Environment Agency, and Environmental Authorities in China to secure additional information. Considering the ethical procedure, I did not include these informal conversations in the methodology section.

## **1.6 The Limitations**

The limitations of this research must also be considered. Firstly, the limitations of the comparison between China and the UK must be acknowledged. A comparison between civil and common law systems with vastly differing political and social systems and historical contexts is difficult, apart from the differing scales of the countries involved, which may require different enforcement approaches. Therefore, the conclusions of any such comparison must be qualified. However, the thesis ultimately attempts a narrow comparison framed around the three key themes of enforcement in Chapter 6 and the potential for the role of networks in each country.

A second limitation is that primary empirical research into enforcement in each country was beyond the scope of the thesis, although it might add value to understanding enforcement practice. So, although the author contacted staff of environment agencies in China and the UK, the conversation was informal and via Skype and e-mail. The information obtained thereby was not directly adopted in the thesis, but it helped me understand how to develop the research. The third limitation is that environmental pollution cases are only sometimes disclosed for political reasons and regional protectionism in China. Places such as Guangdong province, which is one of the biggest markets for the importation of waste, receive local government attention when it comes to economic development but not environmental protection, especially in the 1990s and the first ten years of 2000. Finally, specific cases of enforcement networks taking action on the transboundary movement of hazardous wastes are not readily available for access. This may be the case, considering the need to keep the processes confidential to protect both the networks, their methods and the individuals involved in the processes, given that organised crime is often involved. In light of the difficulty of accessing information, the research results are qualified. However, they do provide a foundation for future research to build upon should more details of the practice of enforcement networks emerge.

## **1.7 Structure**

This research is contained in eight chapters. Chapter 1 is the introduction, which includes the significance of the research, the research questions and design, a definition of enforcement for the purposes of the thesis, a literature review that illustrates key themes in enforcement, the value of networks and the weaknesses of the Basel Convention, and the methodological approaches used in the thesis.

Chapter 2 provides a theoretical foundation for the research. It presents the understanding of enforcement at different levels, not only by national authorities but

also by international and national organisations. It also deals with the differences between international enforcement and national enforcement. This leads to the discussion of environmental legislation and institutions, which are essential elements of enforcement. Furthermore, enforcement mechanisms and approaches have been analysed to unravel the themes that could influence the efficiency of enforcement. Chapter 2 initiates a discussion of the key themes of enforcement. Theories underlying networks are also considered.

Chapter 3 provides the reader with an understanding of the Basel Convention. It illustrates the international legal regime on hazardous waste transboundary movement and introduces the main content of the Basel Convention, especially the essential definitions. Each COP is analysed to identify issues raised by parties, particularly in relation to enforcement. It also discusses the problems of the Basel Convention, including intrinsic issues in its provisions and enforcement difficulties.

Chapter 4 provides a doctrinal and social-legal analysis of the enforcement of the Basel Convention. It first illustrates the international enforcement mechanisms of the Basel Convention. Subsequently, general national enforcement is discussed in the context of the Basel Convention regime. A primary aim of the discussion on enforcement mechanisms in Chapter 2 and Chapter 4 is to unravel the role of networks and how they function in practice.

Chapter 5 discusses the difference between environmental law legislation and institutions on the transboundary movement of hazardous waste in China and the UK. This chapter provides an introductory comparative analysis of enforcement practices in China and the UK, with a comparative analysis in the context of the three key themes of enforcement that will be explored more fully in the next chapter. The chapter also discusses how international instruments influence national legislation, particularly how the Basel Convention influences the waste legislation in China and the UK.

Chapter 6 discusses in detail the key themes of enforcement applied in China and the UK. Since the three key themes were identified in Chapter 2, Chapter 6 explores each theme in detail before discussing their status in China and the UK and the enforcement practices in the two countries. A fuller comparative analysis of each theme between China and the UK is conducted in this chapter, and this leads to the consideration of how networks can play a role and their potential contribution to effective enforcement. Overall, this chapter lays a foundation for a fuller discussion of the role of networks in Chapter 7.

Chapter 7 principally focuses on networks and their potential contribution to enhancing enforcement around the three key themes. The discussion proceeds from Slaughter's theory and classification of networks into three types. Specific examples of each type of network are also considered. It also considers the role of networks specifically in the context of the transboundary movement of hazardous waste regimes at the international and national levels.

Chapter 8 is the general conclusion of this thesis. It focuses on the contribution of networks to environmental law enforcement, with particular reference to the Basel Convention and the key themes of enforcement. It shows the researcher's findings, contribution to knowledge, recommendations, and the gap for further research.

## Chapter 2 General Introduction to Enforcement of Environmental Law

### 2.1 Aim and Outline

The development of international environmental law in the last decades shows that the international community is interested in addressing environmental problems. In addition to economic, political, and diplomatic measures, a vast number of environmental conventions, agreements, treaties, and decisions have been signed by states.<sup>168</sup> However, how these legal instruments are effective is an important issue in international environmental law.

Environmental Law is described as ‘a cutting-edge laboratory of international law’.<sup>169</sup> Understanding the enforcement of environmental law is a significant part of this thesis. The development of environmental law has produced a large amount of environmental legislation in diverse fields. However, many international law enforcement scholars have complained that these instruments are too ‘soft’.<sup>170</sup> That is because states have taken on stricter obligations under environmental treaties as international environmental law has developed. However, international environmental obligations are closely linked to economic interests.<sup>171</sup> Parties to treaties might not comply with their obligations because of economic interests. In addition, some developing states and states in economic transition cannot easily fulfil these obligations because they lack implementation capacity.<sup>172</sup> In practice,

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<sup>168</sup> PW Birnie and AE Boyle (eds), *International law and the Environment* (3<sup>rd</sup> edn, Oxford University Press 2009) 211-212

<sup>169</sup> PH Sand, ‘Carrot without Stick? New Financial Mechanisms for Global Environmental Agreements’ (1999) 3 (1) Max Planck Yearbook of United Nations Law online <<https://brill.com/view/journals/mpyo/3/1/article-p363.xml>> accessed October 2022

<sup>170</sup> AE Cirone and J Upelaiene, ‘Trade Sanction in International Environmental Policy: Deterring or Encouraging Free-riding?’ (2013) 30 (4) *Conflict Management and Peace Science* 309

<sup>171</sup> P Sands and J Peel (eds), *The Principles of International Environmental Law* (4<sup>th</sup> edn, Cambridge University Press 2018) 144-147

<sup>172</sup> P Lerpy and Q Du (eds), *Compliance and Enforcement in Environmental Law Towards More Effective Implementation* (Edward Elgar Publishing 2011) 3-26

international environmental law enforcement by state parties is difficult because: (1) states are concerned about the adverse effect such action will have on relations with other states; (2) international litigation is complex, lengthy and expensive; (3) the technical character of environmental damage and the evidence of this is difficult to acquire; and (4), particularly in the case of poorer developing states, there can be a lack of capacity and resources to enforce the law.<sup>173</sup> Moreover, national enforcement was subject to problems of national legislation and institutions. Whether we are discussing the enforcement of environmental law at the international or national level, challenges and opportunities exist.

This chapter is an important foundational chapter in the thesis. It aims to characterise the enforcement of environmental law. It not only considers who may enforce environmental law and how to enforce it but also the differences between international and national enforcement. Then, it will discuss the key themes of enforcement of environmental law, aiming to explore how to make enforcement more effective. This chapter underlies subsequent chapters which analyse the international and national enforcement of the Basel Convention. Moreover, this chapter also introduces readers to the key themes of enforcement, how to enhance them and the role of networks in that context.

## **2.2 Defining Enforcement**

### **2.2.1 Understanding the Enforcement of Environmental Law**

Enforcement was defined for this thesis in Chapter 1 above.

In relation to international environmental law, generally, enforcement means that those with a personality under the law take measures under rights conferred on them by an instrument or under customary international law to ensure that others similarly

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<sup>173</sup> Birnie (n 168) 221

obligated by the same provisions comply with their obligations. The objective of international enforcement is to comply with the legal norms of international environmental law. However, many provisions of international environmental laws are general principles; they are not sufficiently specific and, thus, are difficult to enforce in practice.<sup>174</sup> So, international enforcement mechanisms may involve diplomatic negotiations, economic sanctions, or resorting to international courts and tribunals in some cases. In contrast, national enforcement mechanisms can include enforcement agencies, administrative bodies, and courts.<sup>175</sup>

Besides, because of political, economic, cultural, historical, social, geographical and other differences, awareness of environmental issues and the ability to ensure environmental protection in different countries are not the same. Particularly, this characterises the differences between developed countries and developing countries concerning their capacity to address environmental problems.<sup>176</sup> These differences are a significant reason for the constraint on the enforcement of international environmental law. However, laws and norms would be dead letters without effective enforcement.<sup>177</sup> Therefore, enforcing international environmental law requires the combined efforts of states, international organisations, and non-state actors. In fact, building an effective enforcement mechanism is one of the major challenges in international environmental law.<sup>178</sup>

### **2.2.2 Enforcement at the International Level by States**

The state is the main subject of international law. In this regard, state rights and

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<sup>174</sup> Jenkins Leesteffy, 'Trade Sanctions: Effective Enforcement Tools' in Jacob Werksman and James Cameron and others (eds), *Improving Compliance with International Environmental Law* (Earthscan 1996) 221-222

<sup>175</sup> Guzman (n 53)

<sup>176</sup> Sands (n 171) 619

<sup>177</sup> Canlin Lin, 国际环境法实施机制探析 [Analysis of the Enforcement Mechanism of International Environmental Law] (2011) 2 *Comparative Law Research* 93

<sup>178</sup> Jacob Werksman and James Cameron and others (eds), *Improving compliance with international environmental law* (Earthscan Publication 1996) 58-59

responsibilities fall under two categories: the first category includes bilateral and multilateral treaties, and the second category mainly relates to the International Law Commission (ILC), including cases of pollution of the common environment, which may particularly impact one or several states.<sup>179</sup>

The Stockholm Declaration states:

*States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction,*<sup>180</sup>

The Rio Declaration expanded on this slightly:

*States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.*<sup>181</sup>

This shows that states have the primary role in enforcing international environmental law, given their rights and responsibilities thereunder and their duty to control

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<sup>179</sup> Sands (n 171) 161-168;

See also UN General Assembly (UNGA), Report of the International Law Commission on the Work of Its Fifty-Third Session' (2001) UN Doc A/56/10, Chapter IV.E.1, Art 42

<sup>180</sup> UN Secretary-General (UNSG) 'Declaration of the United Nations Conference on the Human Environment' (1972) UN Doc A/CONF. 48/14/Rev.1, Principle 21

<sup>181</sup> UNGA 'Rio Declaration on Environment and Development' (1992) UN Doc A/CONF.151/26/Rev.1 (vol.1), Principle 2



activities within their jurisdictions.<sup>182</sup> According to the Draft Articles on Responsibility of States for Internationally Wrongful Acts, a state's wrongful actions will lead to state responsibility. However, assuming state responsibility is difficult.<sup>183</sup> However, other states can take different actions to ensure that the state responsible for environmental harm is responsible for the negative effects of environmental pollution on the other state(s).<sup>184</sup> Secondly, states may, through a variety of ways, try to avoid their responsibility.<sup>185</sup> As international law has developed in practice, one of the critical facets of state responsibility is the duty to prevent, reduce, and control national and transboundary pollution and environmental harm. This can be done, for example, through regulation and environmental impact assessment mechanisms. Another facet of state responsibility is cooperation in environmental emergencies, including notification, consultation, and negotiation.<sup>186</sup>

In the current international order, the conclusion of international treaties between nations is the primary approach to solving environmental problems. Firstly, states are the main subjects of international law. In this regard, they bear rights and assume obligations independently and can initiate international claims. Secondly, some environmental damage can occur suddenly and cause widespread harm. In order to reduce damage as much as possible and eliminate harm as quickly as possible, states

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<sup>182</sup> Sands (n171) 153-154

<sup>183</sup> UN, 'Draft articles on Responsibility of States for Internationally Wrongful Acts, with commentaries' (2001) II (2) Yearbook of the International Law Commission 30

<sup>184</sup> For example, *Trail Smelter Case (United States v Canada)* [1941] UN Rep Int'L Arb. AWARDS 1905 (1949);

*Pulp Mills on the River Uruguay (Argentina v Uruguay)* [2010] ICJ Rep 135(Apr. 20)

<sup>185</sup> James Crawford, Alain Pellet and Simon Olleson (eds), *The Law of International Responsibility* (Oxford University Press 2010) 56-57

<sup>186</sup> Birnie (n 168) 214-217

A typical example is the Declaration of the United Nations Conference on the Human Environment 1972. Principle 21 is explicitly stipulated: 'States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.'

should undertake their responsibility of environmental governance through preventive regulation and the promotion of technological innovation aimed at controlling environmental pollution and damage.<sup>187</sup> Finally, environmental damage usually encompasses transboundary pollution and global concerns. Environmental damage is latent, and victims can be numerous, but liability is not easily established.<sup>188</sup> For example, it is difficult to say who should take responsibility for damage caused by climate change, which is a global environmental issue.<sup>189</sup>

Furthermore, the 'injured state' was defined by the ILC in the context of environmental enforcement procedures.<sup>190</sup> Regarding environmental damage, three situations may give rise to the possibility of enforcement of environmental law by a state. The first one is that state activities caused environmental damage to their territory, for example, the destruction of biodiversity, which is protected under the Biodiversity Convention, and another state takes action to address the issue; the second is that state activities caused environmental damage to another state or other states, such as damages from the transboundary movement of hazardous wastes which is regulated by the Basel Convention; the third is where state activities cause environmental damage beyond any national jurisdiction.<sup>191</sup>

### **2.2.2.1 Damage within a State**

Environmental enforcement, where the damage occurs within a state, will generally be a national matter within the jurisdiction of the country concerned. However, other states could conceivably take action against a state that damages its territory, as this may be with respect to or result in environmental damage to an element of the

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<sup>187</sup> J Brunnée, 'Enforcement Mechanisms In International Law And International Environmental Law' in U Beyerlin (eds), *Ensuring Compliance with Multilateral Environmental Agreements: A Dialogue between Practitioners and Academia* (Brill Academic Publishers 2006) 1-23

<sup>188</sup> J Crawford, *State Responsibility: The General Part* (Cambridge University Press 2013)

<sup>189</sup> Lin (n 177)

<sup>190</sup> Werksman (n 178) 58-59

<sup>191</sup> Sands (n 171) 154

environment that is a common concern. For example, Germany might take action against an Asian state for the destruction of biodiversity within its territory because Germany considered that it had an interest in the affected biodiversity under the common concern principle.<sup>192</sup> To date, no state has attempted such a claim, which perhaps reflects the reluctance of states to get involved in issues in another state's territory unless there are compelling reasons for doing so, such as flagrant breaches of human rights.<sup>193</sup> Normally, states would also be hesitant since their conduct within their own territory might be questionable; in addition, other states would also wait to see how the affected state utilises the available national enforcement mechanisms in addressing the situation.

Thus, when environmental damage occurs inside a country, enforcement will usually take place under national governance and jurisdiction. Countries will generally have an 'Environmental Protection Agency' to implement national environmental laws and regulations and discharge its enforcement function to deal with environmental breaches within the country.<sup>194</sup> A country's environmental enforcement authorities usually have a relationship with the environmental ministry; however, the institutional structure and authority differ considerably between countries.<sup>195</sup>

#### **2.2.2.2 Damage to Other States**

An international claim could be raised when a state – the 'injured state' – suffers environmental damage, health problems, property or other economic loss caused by

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<sup>192</sup> For example, the Federal Ministry for Economic Cooperation and Development published *Committed to Biodiversity – Germany's International Cooperation in Support of the Convention Biological Diversity for Sustainable Development*, which supports Aichi Target

<sup>193</sup> For example, *Denmark v Greece* [1967] ECHR 3321/673322/67, 3323/67, 3344/6;

*Norway v Greece* [1967] ECHR 3322/67;

*Sweden v Greece* [1967] ECHR 3323/67;

*Netherlands v Greece* [1967] ECHR 3344/67;

*Ireland v UK* [1979-80] 2 EHRR 25, IHRL 16

<sup>194</sup> *Farmer* (n 41) 37-47

<sup>195</sup> *Ibid*

another state. The Trail Smelter dispute between the United States and Canada is a typical transboundary pollution case that contributed to establishing transboundary pollution environmental law.<sup>196</sup> There are examples of such harm occurring in the context of the transboundary movement of hazardous wastes, such as the Trafigura case; this case encouraged the international community to consider the issues of liability and compensation for injury caused to another state by the transboundary movement of or trade-in of hazardous wastes.<sup>197</sup> However, even though there has been an increase in the number of transboundary cases brought in recent years,<sup>198</sup> Some major transboundary incidents, such as the Chernobyl Nuclear Accident, did not give rise to any litigation.<sup>199</sup> Even when damage occurs, states may prefer negotiated solutions and, as stated above, may be reluctant to take action if that will constrain the exercise of their sovereignty in any way.

### **2.2.2.3 Damage to Areas Beyond Any National Jurisdiction**

Environmental damage to areas beyond any national jurisdiction may also occur. This could include damage such as alien invasive species on the high seas, illegal

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<sup>196</sup> Birnie (n 168) 214;

Sands (n171) 156-157;

United States v Canada (n 184)

<sup>197</sup> Amnesty International and Greenpeace Netherlands, 'The Toxic Truth -About a Company Called Trafigura, A Ship Called The Probo Koala, and the Dumping of Toxic Waste In Cote D'Ivoire' (Amnesty International and Greenpeace Report 2012)

<<http://www.greenpeace.org/international/Global/international/publications/toxics/ProboKoala/The-Toxic-Truth.pdf>> accessed March 2021

<sup>198</sup> For example, there were a total of 1350 cases registered in GongBei Customs in Zhuhai, China, during the year 2017, which increased by around 15 percent from 2016.

WCO News: <[http://gongbei.customs.gov.cn/gongbei\\_customs/index/index.html](http://gongbei.customs.gov.cn/gongbei_customs/index/index.html)> accessed March 2021

<sup>199</sup> The Chernobyl Nuclear Accident was caused by serious mistakes of the plant operators, and the accident was a consequence of the Cold War. This might be the reason for the non-litigation of the Chernobyl Nuclear Accident. Much literature discussed this accident; however, there is no record of any litigation against the Soviet Union.

'Chernobyl Accident 1986', <<http://www.world-nuclear.org/information-library/safety-and-security/safety-of-plants/chernobyl-accident.aspx>> accessed March 2021.

fishing on the Grand Banks, radioactive waste dumping.<sup>200</sup> Environmental damage in areas beyond national jurisdiction does not have a specific 'injured state'. Suppose one party to an international treaty or agreement has evidence that another party has breached its obligation under a relevant treaty or agreement and, as a result, damaged areas beyond national jurisdiction. In that case, the party may have the legal right to seek enforcement of that obligation against the party violating it, even if it has not specifically suffered material environmental damage.<sup>201</sup> An example is the *Nuclear Tests case*. When Australia and New Zealand brought the claim, they had not suffered any environmental damage from the French nuclear testing.<sup>202</sup> They were concerned about potential obstruction of the right to navigation on the high seas and damage to the global atmosphere. The problem is that within treaties, it is usually unclear if states have the right to take enforcement action against other states that cause damage to areas beyond national jurisdiction.<sup>203</sup> Although there has been considerable discussion in recent years about the possibility of using such an approach to deal with climate change,<sup>204</sup> cases such as the Nuclear Tests case remain exceptional.

In summary, whether environmental damage occurs in a state's territory, another state's territory, or areas beyond national jurisdiction, states are generally reluctant to enforce international environmental protection obligations against other states through judicial means, at least where possible.<sup>205</sup> However, it is worth clarifying that state responsibility can arise under customary international law and, indeed, that the Stockholm and Rio Declarations<sup>206</sup> reflect the customary obligation. The Nuclear

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<sup>200</sup> Convention on Biological Diversity (adopted 5 June 1992, entered into force 29 December 1993) 1760 UNTS 79

<sup>201</sup> Sands (n 171) 156-157

<sup>202</sup> *Nuclear Tests Case (Australia v France)* [1974] ICJ Rep 253, ICJ 133

<sup>203</sup> Sands (n 171) 157

<sup>204</sup> Daniel Farber and Marjan Peeter, *Climate Change Law* (Edward Elgar Publishing 2016)

<sup>205</sup> Sands (n 171) 160

<sup>206</sup> UNGA (n 179)

Tests Cases are also built upon an alleged breach of that customary obligation.<sup>207</sup>

Due to this reluctance by states, another possibility of holding states accountable for their actions and omissions could be the increasing role of international organisations and non-state actors in enforcing international environmental obligations.<sup>208</sup>

### **2.2.3 Enforcement by International Organisations**

International organisations with an international environmental law role are established at the global, regional, sub-regional, and bilateral levels. Scholars have classified these organisations into the following three categories: (1) United Nations and its specialised agencies are referred to as global organisations; (2) regional and sub-regional intergovernmental organisations which are not part of the UN system, such as the European Union, African Union, Americas and the Caribbean community, and Asia Pacific community, and (3) global, regional or bilateral level organisations established by relevant treaties, such as the Climate Change regime institutions and bilateral transboundary river commissions, which are commonly termed 'Autonomous Institutional Arrangements'.<sup>209</sup>

Many international organisations are responsible for the development, application, and enforcement of international environmental obligations, as well as for setting relevant standards. Generally, there are five functions of international organisations apart from any specific functions they may have, which are: (i) to provide a focus for coordination and cooperation between states for the purpose of international

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Declaration of United Nations Conference on the Human Environment in 1972, held in Stockholm, and Rio Declaration on Environment and Development in 1992, held at Rio De Janeiro,

<sup>207</sup> Nuclear Tests Case (n 202)

<sup>208</sup> Werksman (n 178) 62-63

<sup>209</sup> Brunnée (n 186);

See also: UNEP, 'The Role of International organisations in the development of Environmental Law: A Case of UNEP' (2016)

<<http://www.unep.org/Documents.Multilingual/Default.asp?DocumentID=222&ArticleID=2990>>

accessed November 2020

environmental management; (ii) to provide information; (iii) contribution to developing international environmental instruments that may establish legally binding obligation, new institutional arrangements or reflect customary norms; (iv) improving implementation of and compliance with international environmental standards, regulations and obligations; and (v) providing an independent mechanism or forum for dispute settlement.<sup>210</sup>

However, the function of international organisations in relation to environmental enforcement is limited when compared with their role in developing international environmental law. States are reluctant to transfer too much enforcement power to international organisations and their secretariats because of sovereign interests.<sup>211</sup>

There has been a tendency to focus on promoting diplomatic means of dispute settlement, including non-compliance mechanisms. Only some international organisations have the capacity to enforce breaches of the obligations they supervise within judicial processes.<sup>212</sup> However, international organisations play a significant role in providing financial and technical support, being involved in international negotiations, and making recommendations, all of which can help secure compliance with international environmental law.<sup>213</sup>

There are many examples of international organisations which show this development in enforcement. Early cases of international organisations having the powers to enforce environmental obligations, usually by making recommendations, mostly related to fisheries and international rivers. A typical example is the provision for 'International Measures', which can be made by the CITES Secretariat and 'shall be reviewed by the next Conference of the Parties which may make whatever

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<sup>210</sup> Sands (n 171) 55-59

<sup>211</sup> Lin (n 177)

<sup>212</sup> A Tabau and S Maljean-Dubois, 'Non-Compliance Mechanisms: Interaction between Kyoto Protocol System and European Union' (2010) 21 (3) *The European Journal of International Law* 749

<sup>213</sup> Werksman (n 178) 31-38

recommendations it deems appropriate.<sup>214</sup> Also, the 1971 Oil Pollution Fund Convention endowed the Fund with legal personality so it could be a party in legal and enforcement proceedings before the national courts of state parties.<sup>215</sup>

Moreover, the Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR) of 1992 also created a way to increase the role of the Convention's Commission to ensure state compliance with its obligations through two functions.<sup>216</sup> The first function is to 'assess' compliance with the Convention and decisions and recommendations made thereunder based on reports submitted by the parties.<sup>217</sup> The second function is to: '*decide upon and call for steps to bring about full compliance with the Convention, and decisions adopted thereunder, and promote the implementation of recommendations, including measures to assist a Contracting Party to carry out its obligations*'.<sup>218</sup> Following that, the United Nations Convention on the Law of the Sea (UNCLOS) endowed relevant institutions with a range of enforcement powers.<sup>219</sup> For example, the Council of International Sea-Bed Authority was given a role to 'supervise and coordinate the implementation', 'invite the attention of the Assembly to causes of non-compliance' and 'to prevent serious harm to the marine environment arising out of activities in the Area' for emergency issue.<sup>220</sup> The Council of International Sea-Bed Authority may also bring proceedings

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<sup>214</sup> Convention on International Trade in Endangered Species of Wild Fauna and Flora (adopted 3 March 1973, entered into force 1 July 1975) 993 UNTS 243, Article XIII

<sup>215</sup> International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage (adopted 18 December 1971, entered into force 16 October 1978) 1110 UNTS 57, Article 2 (2)

<sup>216</sup> Werksman (n 178) 64-65 ;

Convention for the Protection of the Marine Environment of the North-East Atlantic (adopted 22 September 1992, entered into force 25 March 1998) 2354 UNTS 67

<sup>217</sup> Ibid, Article 23 (a) states that: '...reports submitted by the contracting parties, assess their compliance with the Convention and the decisions and recommendations adopted thereunder.'

<sup>218</sup> Ibid, Article 23 (b)

<sup>219</sup> United Nations Convention on the Law of the Sea (adopted 10 December 1982, entered into force 16 November 1994) 1833 UNTS 3, 1834 UNTS 3, 1835 UNTS 3

<sup>220</sup> Ibid, Article 162 (2), Article 176.

Werksman (n 178) 63-65



to the Sea-Bed Disputes Chamber of ITLOS based on recommendations from a Legal and Technical Commission.<sup>221</sup>

Most noteworthy and highly unusual is the EU Commission's enforcement power at the regional and sub-regional levels. The EU Commission has enforcement power under Article 258 of the Treaty on the Functioning of the EU (TFEU) to ensure that institutions and member states implement obligations correctly. The EU Commission exercises its enforcement power regularly. Since 1993, it has also had the power to seek financial penalties against member states for continued non-compliance, which has been done in environmental cases.<sup>222</sup> Moreover, the EU Commission can also apply to the European Court of Justice (ECJ) for interim measures under Article 279 of the TFEU, which establishes a form of interlocutory relief in EU jurisprudence.<sup>223</sup> Enforcement action has been taken against member states for non-implementation of measures designed to ensure the safe management of waste.<sup>224</sup> However, the enforcement by the EU Commission is not uncontroversial and was even one of the reasons given to support the case for BREXIT in the 2016 referendum. In addition to the above, the WTO dispute settlement system for parties is another typical binding procedure on dispute resolution and compliance enforcement; however, the WTO cannot bring action against parties under the system.<sup>225</sup>

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<sup>221</sup> Sands (n171) 162

<sup>222</sup> *Commission of European Communities v Greece* (Case C-387/97) [2000] ECR I-5092, [2001] Env LR D2; L Borzsak, 'Punishing Member States or Influencing Their Behaviour or Iudex (non) calculate?' (2001) 13 (2) JEL 235

<sup>223</sup> *Commission of European Communities v Germany* [1990] ECR I-3437 (C-195/90 R)

<sup>224</sup> *Commission of European Communities v Italy* (Re Toxic Waste in Campania) (C33/90); [1991] ECR. I-5987; [1992] 2 CMLR. 353; [1993] Env. L.R. 452.

<sup>225</sup> 'Introduction to the Dispute Settlement System'

<[https://www.wto.org/english/tratop\\_e/dispu\\_e/disp\\_settlement\\_cbt\\_e/c1s1p1\\_e.htm](https://www.wto.org/english/tratop_e/dispu_e/disp_settlement_cbt_e/c1s1p1_e.htm)>; accessed February 2021;

The WTO Dispute Settlement System: To Consider in the DSU Negotiations (Oct 2005) SC/TADP/TA/DS/1

#### 2.2.4 Enforcement by Non-state Actors

Over the years, experience shows that six categories of non-state actors play an important role in environmental protection, the development of international environmental law, and, to some extent, its enforcement. The categories are: (i) the scientific community, (ii) non-profit environmental groups and associations;<sup>226</sup> (iii) private companies and business concerns; (iv) legal organisations which can provide consultation when there is a dispute between states; (v) the academic community; and (vi) individuals. At the international level, non-state actors play a role in several ways. They may take international legal action to identify issues, have an observer role in international organisations, be involved in treaty negotiations, and participate in national and international implementation of principles and rules adopted at the regional and global levels.<sup>227</sup>

Specifically, Agenda 21 called for non-governmental organisations to be given a 'vital role' in international environmental governance.<sup>228</sup> All international organisations were called on to enhance the contribution of non-governmental organisations in policy design, decision-making, implementation and evaluation at the individual agency level, in inter-agency discussions and UN conferences.<sup>229</sup> As far as the Basel Convention regime is concerned, the NGO Basel Action Network (BAN) promotes the Convention's objectives, regularly participates in Conferences of the Parties, and draws attention to illegal trade and waste minimisation

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<sup>226</sup> Normally, non-profit environmental groups and associations can be seen as NGOs. For example, the International Union for the Conservation of Nature, Greenpeace, Oxfam, Action Aid, Grassroots environmental and consumer organisations, Climate Change Network, Basel Action Network.

<sup>227</sup> Sands (n 171) 89-90

<sup>228</sup> Agenda 21 (n 148) Para 27.1 stated:

*'Non-governmental organisations play a vital role in the shaping and implementation of participatory democracy.'*

<sup>229</sup> Agenda 21 (n 148) Para 27.9 (a)

solutions.<sup>230</sup>

As discussed above, implementation and enforcement of international environmental law primarily take place at the national level, but environmental organisations have also been involved through political means and administrative or judicial procedures for enforcing national measures.<sup>231</sup> However, non-state actors also play a significant role in developing and applying international environmental law. Therefore, enforcement by non-state actors can be divided into enforcement at the international level and enforcement in the national courts.<sup>232</sup>

Unfortunately, the enforcement role of non-state actors at the international level is relatively limited, except in the human rights field. Some regional or sub-regional human rights treaties allow individuals to complain to an international body directly if the individual is a victim, such as the European Convention on Human Rights.<sup>233</sup> Under this regime, the case can be taken to the European Court of Human Rights if the victim argues that one of the parties has violated a right in the Convention and that domestic remedies have been exhausted.<sup>234</sup> Also, the African Charter on Human and Peoples' Rights<sup>235</sup> allows NGOs, individuals, and people to bring action against

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<sup>230</sup> Basel Action Network (BAN) is a member of The Environmental Network for Optimizing Regulatory Compliance on Illegal Traffic (ENFORCE) of the Basel Convention. ENFORCE was established by the COP11 of BC-11/8. The mission of ENFORCE is to promote compliance with the Basel Convention through a network of relevant experts. 'BAN' <<http://www.ban.org>> and 'ENFORCE Overview' <<http://www.basel.int/Implementation/TechnicalAssistance/Partnerships/ENFORCE/Overview/tabid/4526/Default.aspx>> accessed March 2021

<sup>231</sup> See discussion later in this chapter and Chapter 5

<sup>232</sup> Sands (n 171) 163-166

<sup>233</sup> Convention for the Protection of Human Rights and Fundamental Freedoms (adopted 4 November 1950, entered into force 3 September 1953) 213 UNTS 221

The 'victim' test for standing means it is almost impossible for NGOs or those not directly affected by the violation to claim standing, for example, *Noel Navvii Tauria and 18 others v France* [1995] No. 28204/95, Commission Decision of 4 December 1995, Decisions and Reports No. 83-A; and *Balmer-Schafroth v Switzerland* [1998] 25 EHRR 598

<sup>234</sup> *Oneryildiz v Turkey* [2004] 39 EHRR 12

<sup>235</sup> African Charter on Human and Peoples' Rights (adopted 27 June 1981, entered into force 21 October 1986) 1520 UNTS 217

parties in breach of their obligations.<sup>236</sup> Similarly, the Optional Protocol to the International Covenant on Economic, Social and Cultural Rights<sup>237</sup> also grants analogous rights to individuals and organisations.<sup>238</sup>

Furthermore, the UN Human Rights Council established a complaint procedure and two distinct working groups<sup>239</sup> to receive complaints from and build communication with individuals, groups, and organisations. If the complaint were not rejected, it would be transmitted to the state concerned to obtain its view.<sup>240</sup> Moreover, in addition to human rights regimes, non-state actors, which include individuals and NGOs, also play a positive role in supporting the European Union's enforcement function by submitting complaints about member states' non-compliance and non-implementation of their obligations.<sup>241</sup>

Since the primary role of environmental enforcement rests with states and the power of non-state actors is limited, environmental organisations, particularly NGOs, seek more capacity to influence international and national government positions concerning environmental law-making, decision-making and enforcement. For

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<sup>236</sup> *SERAC v Nigeria*, Decision, Comm. 155/96 (ACmHPR, 27 October 2001)

<sup>237</sup> Optional Protocol to the International Covenant on Economic, Social and Cultural Rights (adopted 10 December 2018, entered into 5 May 2013) 2922 UNTS 29

<sup>238</sup> *Lake Lubicon Band v Canada* [1990]UN HR Comm, Communication No. 167/1984

<sup>239</sup> The two working groups are the Working Group on Communications and the Working Group on Situation.

<sup>240</sup> 'Complaining about Human Rights Violations' (United Nations Human Rights Council) <<http://www.ohchr.org/EN/HRBodies/HRC/ComplaintProcedure/Pages/HRCComplaintProcedureIndex.aspx>> accessed March 2021

The Human Rights Council complaint procedure was updated in 2007 and is now impartial, objective, efficient, and victim-oriented.

<sup>241</sup> European Commission, 'Legal Enforcement'

<<http://ec.europa.eu/environment/legal/law/complaints.htm>> accessed March 2021;

See also: P Koller and L Cashman, 'Implementing EC environmental law: Compliance promotion and enforcement by the European Commission' (2009) 6 (1) JEEPL 1-12

example, non-state actors such as NGOs<sup>242</sup> can seek to influence the UN system.<sup>243</sup> It is not inconceivable that NGOs could influence the UN General Assembly (UNGA) to seek an advisory opinion from the International Court of Justice (ICJ) on a particular environmental damage case.<sup>244</sup> Moreover, they act as observers at treaty conferences of the parties<sup>245</sup> and assist states informally at the international level,<sup>246</sup> and are increasingly active in bringing legal proceedings to enforce relevant obligations in international environmental law at the national level.<sup>247</sup> For example, a range of rights were given to non-state actors in the Aarhus Convention;<sup>248</sup> NGOs can appoint some of the committee members of the Aarhus Convention Compliance Committee and directly complain to it.<sup>249</sup>

### **2.2.5 Non-state Actors' Enforcement under International Law in National Court**

In accordance with the Rio Declaration and Agenda 21, the enforcement role of the

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<sup>242</sup> There are many non-state actors, such as NGOs, multinational corporations, the international media, religious groups, and transnational diaspora communities.

<sup>243</sup> P Wijninga and WT Oosterveld (eds), 'State and Non-state Actors: Beyond the Dichotomy' in J Esch (eds), *Strategic Monitor 2014: Four Strategic Challenges* (Hague Centre for Strategic Studies 2014) 139 <<http://www.jstor.org/stable/resrep12608.8>> accessed March 2021

<sup>244</sup> R Bavishi and S Barakat, 'Procedural Issues Related to the ICJ's Advisory Jurisdiction' [2012] Legal Response Initiative 1

<sup>245</sup> For example, Basel Action Network at Basel COPs or Greenpeace at climate change COPs

<sup>246</sup> For example, NGO traffic provides capacity building for least developed countries' CITIS enforcement capabilities. The typical case is the WTO Shrimp-Turtle case; G Shaffer, 'The WTO Shrimp-Turtle Case (United States - Import Prohibition of Certain Shrimp and Shrimp Products)' (2010) 93 *American Journal of International Law* 507

<sup>247</sup> For example, 'Landmark Decision by Dutch' <[www.urgenda.nl/en/themas/climate-case/](http://www.urgenda.nl/en/themas/climate-case/)> accessed March 2021;

Sands (n 171) 165-166; Werksman (n 178) 65-66;

See also: PHF Bekker, 'Advisory Opinions of the World Court on the Legality of Nuclear Weapons' [1996] 1 (5) *Journal of the American Journal of International Law*

<sup>248</sup> Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (adopted 25 June 1998, entered into force 30 October 2001) 2161 UNTS 447

<sup>249</sup> V Kovster, 'The Compliance Committee of the Aarhus Convention – An Overview of the Procedure and Jurisprudence' (2007) 37 *Environmental Policy and Law* 83

non-governmental sector is stronger before the national courts and tribunals.<sup>250</sup> In the earlier treaties and international agreements,<sup>251</sup> non-governmental sectors were not recognised. At most, their enforcement role was limited to establishing principles governing equal access to national courts by victims or establishing the jurisdiction of courts in transboundary pollution cases.<sup>252</sup> In addition, states could set out rights to support persons who are impacted or deemed to be impacted by trans-frontier pollution, especially as it relates to access to information, participation in enquiries, and ‘recourse to and standing in administrative and judicial procedure’ to mitigate damage and seek compensation.<sup>253</sup>

Several treaties establish civil liability, giving individuals or non-state actors an enforcement role. There are two approaches to national court jurisdiction. Firstly, treaties provide a right of action before the national court for victims of transboundary pollution incidents in either the courts where the pollution originated or state courts where the damage was suffered.<sup>254</sup> For example, the Nuclear Civil Liability Conventions adopted provisions which require victims to make their claim before the courts in the state in whose territory the nuclear incident occurred.<sup>255</sup>

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<sup>250</sup> see (n 181) Principle 10 of the Rio Declaration states: *'Environmental issues are best handled with participation of all concerned citizens, at the relevant level. At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities'*;

Agenda 21 (n 148) para 27.13 provided: *'Governments will need to promulgate or strengthen, subject to country-specific conditions, any legislative measures necessary to enable the establishment by non-governmental organisations of consultative groups, and to ensure the right of non-governmental organisations to protect the public interest through legal action.'*

<sup>251</sup> Such as the Convention on Long-Range Transboundary Air Pollution (adopted 13 November 1979, entered into force 16 March 1983) 1320 UNTS 217

<sup>252</sup> For example, the OECD Council Recommendation on Equal Rights of Access in Relation to Trans-frontier Pollution set the constituent elements of a system of equal rights to access.

See also: Sands (n 171) 163-164

<sup>253</sup> Recommendation of the Council on Principles Concerning Transfrontier Pollution (2024) OECD/LEFAL/1033

<sup>254</sup> Werksman (n 178) 67

<sup>255</sup> Convention on Third Party Liability in the Nuclear Energy (adopted 29 July 1960, entered into force 1 April 1968) 956 UNTS 251, Article 13

See also:

Secondly, non-state actors can enforce the law against transboundary pollution under private international law as it falls within the national court's jurisdiction on civil and commercial matters.<sup>256</sup> Disputes under private international law can include those arising out of tort. For example, the 1968 Brussels Convention<sup>257</sup> requires individual EU member states as parties to recognise judgments throughout the EU in civil and commercial jurisdictions.<sup>258</sup>

The Aarhus Convention enhanced the role of NGOs, requiring parties to give NGOs standing to challenge breaches of the Convention and environmental law in their national courts.<sup>259</sup> Through its Bali Guidelines, UNEP is trying to promote the values of the Aarhus Convention to a wider audience of states.<sup>260</sup> In addition, another convention providing Aarhus-type rights is the Escazú Convention, promoted by the Economic Commission for Latin America and the Caribbean.<sup>261</sup>

Also, in the EU, the concept of direct effect enables non-state actors to enforce EU law obligations in national courts if the EU law measures are sufficiently clear and precise and do not give Member States discretion regarding their implementation.<sup>262</sup>

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Vienna Convention on Civil Liability for Nuclear Damage (adopted 21 May 1963, entered into force 12 November 1977) 1063 UNTS 265, Article XI(1)

<sup>256</sup> *Handelskwekerij GJ Bier v Mines de Potasses d'Alsace* [1976] ECR 1735

<sup>257</sup> The Full name of the 1968 Brussels Convention is the 1968 Brussels Convention on Jurisdiction and Enforcement of Judgements in Civil and Commercial Matters, is not the same Convention on Jurisdiction and Enforcement of Judgements in Civil and Commercial Matters adopted in 1988.

<sup>258</sup> Convention Jurisdiction and Enforcement of Judgements in Civil and Commercial Matters (adopted 27 September 1968, entered into force 1 February 1973) 8 ILM 229 (1969), Article 5; 1968 Brussels Convention introduced the idea that member states could sue another contracting state in different situations.

<sup>259</sup> See (n 248), Article 9 (Access to Justices) of the Aarhus Convention points out that the NGO's interest shall meet the standing requirement for the convention.

<sup>260</sup> U Etemire, 'Insights on the UNEP Bali Guidelines and the Development of Environmental Democratic Rights' [2016] 28 Journal of Environmental Law 393

<sup>261</sup> Regional Agreement on Access to Information, Public Publication and Justice in Environmental Matters in Latin America and the Caribbean (Escazú Convention) (adopted 4 March 2018, entered into force 22 April 2021) 3398 UNTS

<sup>262</sup> For an example of direct effect in the context of environmental law; J Fairhurst, *Law of the European Union* (11<sup>th</sup> edn, Pearson Higher Ed 2016) ch 9;

Besides, it is worth mentioning the transnational enforcement of environmental law, which is based neither wholly on national law nor wholly on international law. Transnational enforcement of environmental law can be referred to as enforcing transnational public law and transnational private law.<sup>263</sup> The International Law Association (ILA) Committee on Transnational Enforcement of Environmental Law (TEEL), which was established in 1996,<sup>264</sup> was of the view that transnational enforcement is mainly concerned with the jurisdiction of national courts regarding transboundary environmental issues, choice of law applying to environmental litigation, public interest litigation and transboundary access to justice in environmental cases.<sup>265</sup> So, taking this perspective, transnational enforcement can be understood as police, administrative and judicial cooperation in law enforcement, which is broader.<sup>266</sup> For example, the work of INTERPOL on wildlife and pollution law enforcement is relevant in this regard.<sup>267</sup>

However, for the purpose of this thesis, taking the TEEL definition, transnational enforcement is based on national law enforcement and concerns national cooperation. Therefore, a situation involving an illegal waste shipment from one state to another, possibly through a third transit state, could be characterised as transnational because while it could simply involve national enforcement in each state, cooperation between the states involved will likely be necessary to ensure that

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See also: *Janacek v Freistaat Bayern* (C-237/07) [2008] ECR I-6221

<sup>263</sup> F Cafaggi, *Enforcement of Transnational Regulation: Ensuring Compliance in Global World* (Edward Elgar 2012) 10

<sup>264</sup> ILA Committees <<http://www.ila-hq.org/index.php/committees>> accessed March 2021;

It is noted that TEEL was dissolved in 2006.

<sup>265</sup> AE Boyle, C Bernasconi and G Betlem, 'Berlin Conference (2004) Transnational Enforcement of Environmental Law' (International Law Association, 2004)

<sup>266</sup> GL Rose, 'Gaps in the Implementation of Environmental law at the National, Regional and Global Level' [2011] Faculty of Law, Humanities and Arts – Papers (Archive) <[https://ro.uow.edu.au/lhapapers/1679/?utm\\_source=ro.uow.edu.au%2Flhapapers%2F1679&utm\\_medium=PDF&utm\\_campaign=PDFCoverPages](https://ro.uow.edu.au/lhapapers/1679/?utm_source=ro.uow.edu.au%2Flhapapers%2F1679&utm_medium=PDF&utm_campaign=PDFCoverPages)> accessed on March 2021

<sup>267</sup> International Criminal Police Organization is also working on environmental crime between countries.



the exporter, transporter and importer are all subject to appropriate sanctions for the unlawful shipment.

The use of the words 'transnational enforcement' is thus to be contrasted with the use of the words 'transnational environmental law', which is, for example, the name of a journal in the field. The latter term has a particular meaning that connotes multi-level environmental governance or governance beyond the state - the involvement of third-party groups such as companies and environmental NGOs in the making and implementing environmental law.<sup>268</sup>

### **2.3 Mechanisms of International Environmental Enforcement**

Parties need to comply with international law for it to be effective. Therefore, the international community provides enforcement mechanisms that can induce compliance and increase cooperation to enhance the effectiveness of international law.<sup>269</sup> Some of these enforcement mechanisms are discussed below.

#### **2.3.1 Dispute Settlement in International Enforcement**

The international environmental dispute settlement mechanism generally follows two principles: peaceful settlement of international environmental disputes and effective settlement of international environmental disputes, which can be understood as peaceful settlement.<sup>270</sup> The principle of the UN Charter states: *'All Members shall settle their international disputes by peaceful means in such a manner that*

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<sup>268</sup> Thijs Etty and others (eds), 'Transnational Environmental Law'

<<https://www.cambridge.org/core/journals/transnational-environmental-law>> accessed March 2021  
Transnational Environmental Law is a peer-reviewed journal for the study of environmental law and governance beyond the state

E Morgera, 'The need for an International Legal Concept of Fair and Equitable Benefit-Sharing' (2016) 27 (2) European Journal of International Law 253

<sup>269</sup> Y Muiyano, *Enforcement Mechanism and Their Effect on International Law* (Grin Verlag 2019)

<sup>270</sup> PF Zhu, '国际争端解决机制研究---国际公法视角' [Research on Mechanism of International Environmental Dispute Settlement – From the Perspective of Public International Law] (Doctor's Thesis, East China University of Political Science and Law 2009)

*international peace and security, and justice, are not endangered.*<sup>271</sup> Some international environmental treaties stipulate explicitly that the peaceful principle should be used to settle disputes, such as the provisions on dispute settlement in Part XV of the UNCLOS.<sup>272</sup>

Another principle for settling international environmental disputes is effective settlement. In the development of international law, international environmental dispute settlement mechanisms generally do not involve coercive procedures such as fines (with the exception of EU law). This is because of the *erga omnes* of state sovereignty and the general unwillingness of states to accept a coercive international regime.<sup>273</sup>

The Basel Convention and its Protocol contain several features of international environmental law enforcement, such as a non-compliance mechanism, dispute settlement mechanism, and civil liability, which are discussed in the next section. However, general state responsibility mechanisms could likely be relevant if damages were caused by a hazardous waste export from a non-party to another non-party or from a party to a non-party.<sup>274</sup>

A range of international procedures and mechanisms are available to assist in the peaceful settlement of environmental disputes arising over non-implementation and international obligations.<sup>275</sup> According to the Charter of United Nations (UN Charter), traditional mechanisms identified for the peaceful settlement of disputes include negotiation, enquiry, mediation, conciliation, arbitration, judicial settlement,

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<sup>271</sup> Charter of United Nations (adopted 26 June 1945, entered into force 24 October 1945) Article 2 (3)

<sup>272</sup> UNCLOS (n 219), General provision of Part XV in UNCLOS required the settlement of disputes by peaceful means

<sup>273</sup> Zhu (n 270)

<sup>274</sup> K Kummer and I Rummel-Bulska, *Compliance with and Enforcement of the Basel Convention on Control Transboundary Movement of Hazardous Wastes and their Disposal* (UNEP Report 1990)

<sup>275</sup> Werksman (n 178) 71-75

resort to regional agencies or arrangements, or other peaceful means.<sup>276</sup> These techniques can be divided into two broad categories. The first one is the diplomatic means, which can be easily understood as negotiation, consultation, mediation and conciliation. The other is the legal means, which result in legally binding decisions to parties for the dispute, such as arbitration and judicial settlement.<sup>277</sup>

### **2.3.2 Enforcement Mechanism for Non-compliance**

Based on international law, the party-state to a treaty must take responsibility once non-compliance occurs. However, there are many limitations of state responsibility concerning international environmental law compliance,<sup>278</sup> and the most important one is how they are expected to undertake responsibility.<sup>279</sup> The main methods of state responsibility include apology, restitution, wrongful termination, compensation. However, these approaches cannot substantially address environmental damage, especially long-term and devastating damage. As a punitive measure, state responsibility does not significantly affect the enforcement of international environmental law.<sup>280</sup> Moreover, once a dispute is caused by non-compliance, negotiation is the common way of resolving it. When ‘softer’ dispute resolution approaches like negotiation and mediation have not been effective in resolving the issues, the resolution of the dispute would traditionally depend on litigation or arbitration settlements.<sup>281</sup> However, non-compliance procedures were developed as a more formalised but non-adversarial approach to dispute settlement.<sup>282</sup>

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<sup>276</sup> See (n 271) Article 33

<sup>277</sup> Birnie (n 168) 250-251

<sup>278</sup> UNFCCC, FCCC/CP/2001/13/Add.3 (2002) Decision 24/CP.7

<sup>279</sup> Canlin Lin, *国际环境法* [International Environmental Law] (People's Publishing House 2004) 203

<sup>280</sup> MA Fitzmaurice and C Redgwell, ‘Environmental non-compliance procedures and International law’ (2000) *Netherlands Yearbook of International Law* 31

<sup>281</sup> Birnie (n 168) 237-238

<sup>282</sup> A Cardesa-Salzmann, ‘Constitutionalizing Secondary Rules in Global Environmental Regimes: Non-Compliance Procedures and the Enforcement of Multilateral Environmental Agreements’ (2012)

The earliest non-compliance procedure was adopted in the Montreal Protocol<sup>283</sup>. The Implementation Committee (Committee) investigates non-compliance with treaty obligations. To be clear, *'[t]he functions of the Implementation Committee are to receive, consider and report on any submission by parties related to non-compliance with the Montreal Protocol, to receive, consider and report on any information or observations forwarded by the Secretariat in connection with the preparation of the reports on production and consumption of ozone-depleting substances and any other information received and forwarded by the Secretariat concerning compliance with the provisions of the Protocol.'*<sup>284</sup> In addition, the Montreal Protocol lists specific measures for non-compliant parties, such as issuing caution appropriate assistance, which includes data collection and reporting, technical assistance, technology transfer and financial assistance, information transfer and training, and the suspension of rights.<sup>285</sup>

However, the decision of the Committee is recommendatory and not legally binding. Non-compliance mechanisms are also found in the following international treaties: the Biosafety Protocol, the Kyoto Protocol, the Aarhus Convention, and the Basel Convention.<sup>286</sup> The Basel Convention's non-compliance mechanism is considered in

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24 (1) JEL 103;

Markus Ehrmann, 'Procedures of Compliance Control in International Environmental Treaties' (2002) 13 (2) COJIELP 377;

G Handl, 'Compliance Control Mechanisms and International Environmental Obligations' (1997) 5 Tulane Jo of International and Comparative Law 29

<sup>283</sup> Birnie (n 168) 246

<sup>284</sup> UNEP, 'Decisions of the Parties Related To The Non-Compliance Procedure Of The Montreal Protocol On Substances That Deplete The Ozone Layer' (October 2007);

UNEP, 'Report of the Implementation Committee under the Non-Compliance Procedure for the Montreal Protocol on the work of its thirty-second meeting' (11 August 2004)

UNEP/OzL.Pro/ImpCom/32/6

<sup>285</sup> Montreal Protocol on Substances that Deplete the Ozone Layer (adopted 16 September 1987, entered into force 1 January 1989) 1522 UNTS 3

<sup>286</sup> S Kravchenko, 'Giving the Public a Voice in MEA Compliance Mechanism' in P Lerpy and Q Du (eds), *Compliance and Enforcement in Environmental Law Towards More Effective Implementation* (Edward Elgar Publishing 2011) 83-103

more detail in section 4.3.2 below. The advantages of these non-compliance mechanisms are to promote compliance of parties, which not only involves mitigating international environmental issues but also assistance measures that could help to balance the difference between developed and developing countries in terms of economic and technical capacity.<sup>287</sup>

### 2.3.3 Financial Assistance

To achieve international environmental protection, the cost can be huge, and support is required in equipment, technology, government infrastructure, and so on. In fact, achieving the aim of environmental protection is sometimes considered an impeding to social and economic development due to the toll it may take on some economic and social activities. For a particular country, assuming the responsibility of environmental protection might seriously impact its economy or even be beyond its economic capacity.<sup>288</sup> Therefore, an important enforcement-supporting mechanism in international environmental law is the provision of a means for assisting parties in complying with their obligations to improve the efficacy of the treaty. Particular financial, technical, and other forms of support to developing countries could help improve their ability to comply with international environmental law more easily.<sup>289</sup> Agenda 21, approved by the United Nations Conference on Environment and Development in 1992, contains Chapter 33 and Chapter 34, which provide for *Financial Resources and Mechanisms* and the *Transfer of Environmentally Sound Technology, Cooperation and Capacity-building*, respectively, especially in favour of developing countries.<sup>290</sup>

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<sup>287</sup> Fitzmaurice (n 280)

<sup>288</sup> EB Weiss, *International Environmental Law and Policy* (Aspen Publishers Inc 2007)

<sup>289</sup> Most International environmental conventions in the 1990s provided for technology transfer or financial assistance;

See for example: (n 200) Articles 16, 17 and 21; (n 298) Article 4 (5); (n 23) Article 10

<sup>290</sup> Agenda 21 (n 148)

The primary source of funding for international environmental enforcement is state party contributions. This funding source may be limited, considering state budgets are easily affected by government changes and political priorities, especially in developed countries. Their assistance is sought, and these kinds of development budgets are often the first to be cut in times of hardship, and right-wing governments tend to oppose them.<sup>291</sup>

There are two significant international environmental funding mechanisms. The first is the Global Environment Facility (GEF), established in 1992.<sup>292</sup> The World Bank Group manages the GEF and oversees all programmes that draw on the Fund, including the Green Climate Fund, Adaptation Fund, Brazilian Biodiversity Fund, etc. While the United Nations Development Program (UNDP) is responsible for preliminary studies of GEF projects and technical assistance projects, the United Nations Environmental Program (UNEP) offers expertise in environmental issues. It ensures that the GEF project will satisfy the requirements of existing international environmental treaties.<sup>293</sup> The Scientific and Technical Advisory Panel (STAP) also provides technical support for GEF projects.

The second funding mechanism is debt-for-nature transactions. In modern society, the pressure to pay off foreign debts in hard currency leads to increased natural resource exports, and some insolvent debtor countries engage in heavy deforestation, commercial exploitation of wildlife, and importation of hazardous wastes to increase

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<sup>291</sup> AW Samaan, 'Enforcement of International Environmental Treaties: At Analysis' (2011) 5 (1) Fordham Environmental Law Review 1;

N Matz, 'Environmental Financing: Function and Coherence of Financial Mechanism in International Environmental Agreement' (2002) 6 Max Planck Yearbook of United Nations Law Online 473 <<https://doi.org/10.1163/18757413-00601010>> accessed March 2021;

See also: Farmer (n 41) 192-193

<sup>292</sup> The Global Environment Facility (GEF) <<https://www.thegef.org/gef/whatisgef>> accessed March 2021

<sup>293</sup> Ibid

their ability to repay debts.<sup>294</sup> Debt-for-nature is a means of transferring the debt to environmental protection funding.<sup>295</sup> Debt-for-nature initiatives were conceived to address the rapid loss of resources and biodiversity in developing countries that were heavily indebted to foreign creditors.<sup>296</sup>

There are also other financial mechanisms in international environmental law, such as the Montreal Multilateral Fund,<sup>297</sup> as well as the financial mechanisms under the United Nations Framework Convention on Climate Change (UNFCCC) and Convention of Biodiversity.<sup>298</sup> This shows that the international community has made some efforts, through the provision of financial and technical mechanisms, to improve the capacity of developing nations, especially in complying with international environmental law.<sup>299</sup>

#### **2.3.4 International Enforcement Network and Cooperation**

Although networks involve the collaboration and cooperation of national agencies enforcing national implementing measures and thus do not necessarily have a direct international law element, nevertheless, they may be a concrete example of the implementation of cooperation obligations in international environmental treaties.<sup>300</sup>

Whether environmental law enforcement is taking place at the international level or

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<sup>294</sup> PA Sheikh, 'CRS Report for Congress Debt-for-Nature Initiatives and the Tropical Forest Conservation Act: Status and Implementation' (2010) <<https://www.cbd.int/financial/debtnature/g-inventory2010.pdf>> accessed on March 2021

<sup>295</sup> Weiss (n 288)

<sup>296</sup> Sheikh (n 294)

<sup>297</sup> Matz (n 291)

<sup>298</sup> United Nations Framework Convention on Climate Change (adopted 9 May 1992, entered into force 21 March 1994) 1771 UNTS 107;

'Climate Finance in the Negotiations'

<[http://unfccc.int/cooperation\\_and\\_support/financial\\_mechanism/items/2807.php](http://unfccc.int/cooperation_and_support/financial_mechanism/items/2807.php)> accessed March 2021;

C Alvin and I Anastasive, 'Convention on Biological Diversity: a Review of National Challenges and Opportunities for Implementation' (2011) 20 (14) Biodiversity and Convention 3295

<sup>299</sup> Farmer (n 41) 202-203

<sup>300</sup> See (n 23) Article 4(2)(h)

the national level, it is often the case that neither can be carried out by one state or, one international organisation or one NGO, since an increasing number of environmental issues involve environmental regulation and enforcement which engage more than one country and its institutions.<sup>301</sup> To deal with this, international enforcement networks are being developed. This type of enforcement network has been defined and described by scholars as:

*‘... [focusing] primarily on enhancing cooperation among national regulators to enforce existing national law and rules. As the subjects they regulate – from criminals to corporations – move across borders, they must expand their regulatory reach by initiating contact with their foreign counterparts.’<sup>302</sup>*

And

*‘At a very concrete level, enforcement cooperation is exactly the sharing of information and the collaborative development of specific enforcement strategies in individual cases. The next step is cooperating in strategic priority setting and targeting...’<sup>303</sup>*

There are now many environmental enforcement networks, such as The International Network for Environmental Compliance and Enforcement (INECE), the European Union Network for the Implementation and Enforcement of Environmental Law (IMPEL), the Commission for Asia Environmental Compliance and Enforcement Network (AECEN), the Regulatory Environmental Programme Implementation

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<sup>301</sup> Grant Pink, ‘Environmental Enforcement Networks, Theory, Practice and Potential’ in M Faure and P D Smed (eds), *Environmental Enforcement Networks: Concept, Implementation and Effectiveness* (Edward Elgar Publishing 2015) 13-18

<sup>302</sup> J T Roberts and A Hite (eds), *The Globalization and Development reader: Perspectives on Development and Global Change* (2<sup>nd</sup> edn, John Wiley & Son Ltd 2015)

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<sup>303</sup> Ibid 55-57



Network (REPIN), and the Maghreb Enforcement Network (MEN).<sup>304</sup>

These organisations' functions include experience and information sharing, capacity development, improving efforts on environmental compliance and enforcement, strengthening awareness of environmental compliance and enforcement, and developing consistent and standardised practices and procedures to support the implementation of environmental law enforcement.<sup>305</sup>

International networks and cooperation between countries that are nearby for a common objective on issues is a kind of regionalism, which concept was observed and documented in environmental enforcement networks and probably provides a way of improving cooperation between states, individuals and organisations.<sup>306</sup> The regionalisation of networks provides potential mutual gains, including the reduction of barriers to trade and the improvement of information exchange.<sup>307</sup> Slaughter proposes a set of potential opportunities for networks to maximise their value :

*'1) developing a concept of dual function for all government officials; 2) increasing the visibility and accessibility of government networks; 3) developing more legislative networks; 4) using governmental networks to mobilise a wide range of non-governmental actors; and 5) a customised set of solution developed by domestic polities themselves.'*<sup>308</sup>

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<sup>304</sup> Farmer (n 41) 249-261

<sup>305</sup> Z Savasan, 'The Role of Networks in Ensuring Compliance and Strengthening Coordination: a Comparative Analysis on INECE, ECENA, RENA and REC Turkey' in M Faure and P D Smedt (eds), *Environmental Enforcement Networks: Concepts, Implementation and Effectiveness* (Edward Elgar Publishing 2015) 68-104

<sup>306</sup> J Lehané, 'Towards a Critical Analysis of Environmental Enforcement Networks' in M Faure and P D Smedt and others (eds), *Environmental Enforcement Networks: Concepts, Implementation and Effectiveness* (Edward Elgar Publishing 2015) 131-136

<sup>307</sup> Ibid

<sup>308</sup> A M Slaughter, 'Disaggregated Sovereignty: Towards the Public Accountability of Global Government Networks' (2004) 39 (2) *Government and Opposition* 159

Slaughter's idea of dual function for government officials is that they have their internal function as normal, in addition as members of networks also have an external-facing role in global governance.<sup>309</sup>

## **2.4 Distinguishing International and National Enforcement**

Before the difference in law enforcement by international and national authorities can be understood, it is important to understand the legislation, the legal basis of law enforcement, and the institutions, which are the systems that enforce the law.

### **2.4.1 Different Natures of International Environmental Law and National Environmental Law**

There are three principal ways in which international and national law differ. First, international environmental law is not always binding<sup>310</sup>, and not always binding for all states;<sup>311</sup> however, national environmental law is binding for all parties in the state. Secondly, compliance with international environmental law is not always monitored by international authorities.<sup>312</sup> However, compliance with national environmental law is monitored by governmental or regulatory authorities.<sup>313</sup> Thirdly, alleged breaches of international environmental law are rarely settled by international courts, whereas alleged breaches of national environmental law can be and often are settled by national courts.<sup>314</sup>

### **2.4.2 Different Institutions Enforcing International Environmental Law**

Scholars have identified that international institutions have established a small number of environmental treaties, such as the International Convention for the

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<sup>309</sup> Ibid

<sup>310</sup> For example, the Rio Declaration is not a binding international environmental instrument

<sup>311</sup> For example, the United States signed out of the UNFCCC in 2017

<sup>312</sup> For example, UNEP does not have a compliance monitoring function

<sup>313</sup> Authorities, such as US Environmental Protection Agency; EPB in China

<sup>314</sup> For example, Pulp Mills on the River Uruguay (n 184)

Regulation of Whaling (1946 International Whaling Convention)<sup>315</sup>, trade sanctions against violating parties.<sup>316</sup> Most environmental treaties have not established institutions for enforcement. Whether or not these institutions, like the International Whaling Commission, imposed sanctions directly or indirectly, these sanctions are challenging to enforce procedurally. The reason is that no international body is authorised to enforce international environmental law directly. Most environmental treaties require national governments to draft and implement more specific rules. For example, the Basel Convention forbids the export of hazardous wastes to countries that lack the ability to manage waste in an environmentally sound manner. Parties to the Basel Convention are called upon to draft their specific national laws to implement the obligation in the Convention.

Nevertheless, while international institutions may not be implementing and enforcing international environmental law directly, they play important roles in monitoring, information sharing, and dispute settlement through diplomatic means, including facilitating negotiations. Most environmental treaties have institutional frameworks that involve annual or biennial COPs, such as the UNFCCC and the Basel Convention, which require parties to submit annual reports to support the monitoring of national compliance. Regionally, some institutions have functions similar to those of the COPs. For example, the function of the European Commission is to monitor the compliance of individual EU Member States with European Union environmental directives.<sup>317</sup> It is assisted by the European Environmental Agency, which conducts research and data gathering.<sup>318</sup> International institutions are trying to improve compliance with environmental law; however, effective implementation and

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<sup>315</sup> International Convention for the Regulation of Whaling (adopted 2 December 1946, entered into force 10 November 1948) 161 UNTS 72 (as amended 19 November 1956, 338 UNTS 336)

<sup>316</sup> Werksman (n 178) 221-222

<sup>317</sup> Consolidated Version of Treaty on European Union [2008] OJ L310/13 article 17

<sup>318</sup> 'European Union Agency' <<https://www.eea.europa.eu/about-us>> accessed March 2021

enforcement are lacking.<sup>319</sup>

Most countries have one or more Environmental Protection Agencies that are in charge of environmental permits, inspections, and enforcement at the national level.<sup>320</sup> Because of the differences in history, constitutional structure, politics, financial status, and environmental legislations, the institutional structure is different between countries. However, different institutions should take into account certain general objectives. The first is that the objective of the institutional structure must meet the overall objective of the national environmental regulation's compliance and enforcement strategy. Secondly, the authorities in charge of environmental enforcement should have some autonomy to minimise political interference. Thirdly, the institutional structure should interact effectively with other relevant bodies. For example, pollution control authorities should liaise effectively with nature conservation authorities.<sup>321</sup>

#### **2.4.3 Difference in the Enforcement of International and National Environmental Laws**

As can be seen from the legislation and institutions analysed above in this chapter, international institutions and organisations generally have limited monitoring and enforcement powers.<sup>322</sup> Traditionally, international law enforcement, including international environmental law, has depended on cooperation. However, with the development of globalisation, self-help is no longer sufficient to enforce international environmental law; more measures are required.<sup>323</sup> The development of *erga omnes*

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<sup>319</sup> A Rosencranz and P Kibel (eds), 'The Principles, Structure and Implementation of International Environmental Law' (1999) University Corporation for Atmospheric Research <<https://opensky.ucar.edu/islandora/object/research%3A22/datastream/OBJ/view>> accessed January 2023

<sup>320</sup> Farmer (n 41) 35

<sup>321</sup> Ibid 36-37

<sup>322</sup> Samaan (n 291)

<sup>323</sup> RH Steinberg, 'Power and Cooperation in International Environmental Law', (UCLA School of

obligations constitutes part of international environmental law and emphasises the right of all states to take enforcement measures in response to a violation.<sup>324</sup>

International institutions such as the United Nations provide collective enforcement mechanisms; however, the power of these institutions is limited.<sup>325</sup> So, for the purpose of strengthening the enforcement of international environmental law, international legal and institutional capacity should seek to provide facilities and support to individual countries to adopt or accept international environmental law and to assist in its effective enforcement at the national level.<sup>326</sup> Overall, international environmental law enforcement is 'soft' compared with national enforcement. International enforcement normally depends more on cooperation between states, financial and technical support, and other diplomatic approaches.<sup>327</sup> These international enforcement mechanisms will be discussed in the next chapter.<sup>328</sup>

Because of the binding nature of national environmental legislation and relatively powerful governmental authorities, national environmental law enforcement is more efficient.<sup>329</sup> However, lack of capacity can be a national problem, which is discussed below. In practice, national enforcement mainly falls into three categories: administrative enforcement, civil enforcement, and criminal enforcement. Due to the different policies, history and legislations, the specific measures of enforcement are different in various countries, with some relying more on administrative and civil

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Law Research Paper 06-43) <<https://papers.ssrn.com/abstract=946783>> accessed March 2021

<sup>324</sup> Brunnée (n 187)

<sup>325</sup> D Fitzpatrick and M Anderson, 'International Compliance and Enforcement Mechanisms' in D Fitzpatrick and M Anderson (eds), *Seafarers' Rights* (online edn, Oxford Academic 2005) <[http://seafarersrights.org/wp/wp-content/uploads/2014/11/INTERNATIONAL\\_BOOK\\_SEAFARERS-RIGHTS-CHAPTER-3\\_2005\\_ENG.pdf](http://seafarersrights.org/wp/wp-content/uploads/2014/11/INTERNATIONAL_BOOK_SEAFARERS-RIGHTS-CHAPTER-3_2005_ENG.pdf)> accessed on March 2021

<sup>326</sup> UNEP (n 45)

<sup>327</sup> See Chapter 7 on networks below.

<sup>328</sup> The international enforcement mechanism will be discussed later in this chapter, and the next chapter will focus on the discussion on enforcement mechanism of the Basel Convention.

<sup>329</sup> Connell (n 95)

enforcement (such as China) and others relying more on criminal enforcement (such as the UK). However, enforcement normally also encompasses coordination and collaboration between agencies; information sharing and knowledge management; tools, equipment and training; and awareness and public engagement. Beyond that, agencies will generally have the function of inspection and monitoring, and thereafter, their powers will depend on the nature of the enforcement system and, in some cases, may involve a mix of administrative, civil and criminal provisions.<sup>330</sup>

Separately, regional and sub-regional enforcement initiatives include networks at both the international and national levels. Moreover, enforcement of the Basel Convention and CITES at the national level inevitably involves at least two national agencies since each trade involves at least two states. The implications of this are considered later in this thesis in the chapter on networks.<sup>331</sup> In addition, the thesis considers academic and practitioner publications on enforcement problems, the nature of enforcement, and suggestions for alternative solutions to enforcement problems in international and national environmental law.<sup>332</sup>

In summary, enforcement is often associated with coercion and application of law by authorities.<sup>333</sup> The section distinguished enforcement in international and national environmental law, which considers not only the enforcement mechanisms but also the sources of the law and institutions. Effective enforcement mechanisms include many different approaches, which may encourage compliance.

## **2.5 The Different Approaches to Enforcement**

Scholars have extensively discussed the different approaches to enforcement. Some

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<sup>330</sup> UNEP (n 45)

<sup>331</sup> See Chapter 7 on enforcement networks below

<sup>332</sup> Farmer (n 41) 46-50

<sup>333</sup> J Ouellet, 'Enforcement Mechanisms' (Beyond Intractability, September 2004)

<<http://www.beyondintractability.org/essay/enforcement-mechanisms>> accessed March 2021

scholars divide enforcement approaches into positive (economic rewards or incentives) and negative (threatening punishment or disincentives), while others divide the approaches into cooperative or compliance-based approaches and coercive or deterrence-based approaches.<sup>334</sup> Whatever the approach to international and national enforcement, effective enforcement must address both the positive and negative approaches, as well as the compliance-based and deterrence-based approaches.<sup>335</sup> Indeed, there is a significant debate about approaches to enforcement, including the carrot and stick approach, compliance/persuasive method, deterrence/sanctioning method, and responsive regulation. However, these approaches are linked and are all slightly different ways of characterising the same approaches, with the negative approach including coercion/deterrence/sanction and the positive approach including cooperation/compliance/persuasion.

### **2.5.1 Carrot and Stick Approach in Environmental Law Enforcement**

In international relations, the carrot-and-stick approach is 'hard power', in which the carrot refers to the benefits of tax reduction and promises to reward compliers with prizes or payments, while the stick refers to the threat by authorities to punish violators with fines or physical sanctions.<sup>336</sup> However, the carrot and stick approach is not only used in international enforcement but also in national enforcement.<sup>337</sup> On the other hand, the carrot and stick approach can be seen separately as punishments

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<sup>334</sup> Ibid;

see also: RL Glicksman and DH Eanhart, 'The Relative Efficacy of Coercive and Cooperative Enforcement Approach to Water Pollution Control' in L Paddock (eds), *Next Generation Environmental Compliance and Enforcement* (Environmental Law Institute 2014)

<sup>335</sup> G Dari-Matiacci and G D Geest, 'Carrots, Sticks, and the Multiplication Effect' [2010] 26 (2) *Journal of Law, Economics and Organization* 365

<sup>336</sup> M Pallaver, 'Power and Its Forms: Hard, Soft and Smart' (MSc thesis, The London School of Economics and Political Science 2011)

<[http://etheses.lse.ac.uk/220/1/Pallaver\\_Power\\_and\\_Its\\_Forms.pdf](http://etheses.lse.ac.uk/220/1/Pallaver_Power_and_Its_Forms.pdf)> accessed March 2021

<sup>337</sup> Ouellet (n 333)

and rewards.<sup>338</sup>

### 2.5.1.1 Carrot Approach

Much literature discusses the 'carrot approach', often referred to as 'rewards' or 'positive incentive'. The method could be called compliance or persuasion. At the international level, the carrot approach is used to assist countries in building the capacity for compliance and enforcement.<sup>339</sup> Countries, especially developing countries, often fail to comply and take enforcement action not because of a lack of willingness to comply and enforce but because they lack capacity in this regard.<sup>340</sup> Not all countries have the necessary financial and administrative ability to fully participate in negotiating international environmental treaties. Thus, most developing countries welcome 'carrots' to enforce international relations.<sup>341</sup> For instance, China supports some African countries, such as Ethiopia, in capacity building for climate change through the 'South-South Cooperation' project.<sup>342</sup>

One carrot approach used in the international environmental law field is the establishment of financial mechanisms to promote compliance. Historically, many criteria and procedures were established by bilateral and multilateral aid projects for

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<sup>338</sup> J Andreoni and W Harbaugh (eds), 'The Carrot or the Stick: Rewards, Punishments and Cooperation' (2003) 93 (3) *American Economic Review* 893

<sup>339</sup> Tuula Kolari, *Promoting Compliance with International Environmental Agreements – An Interdisciplinary Approach with Special Focus on Sanctions* (University of Joensuu Faculty of Social Sciences Department of Law 2002)

<sup>340</sup> E Neumayer, 'Multilateral Environmental Agreement, Trade and Development: Issue and Policy Options Concerning Compliance and Enforcement' (2002) Report for Consumer Unity & Trust Society Jaipur  
<[http://eprints.lse.ac.uk/30858/1/Libfile\\_repository\\_Content\\_Neumayer%2C%20E\\_Multilateral%20environmental%20agreements%2C%20trade%20and%20development\\_Multilateral%20environmental%20agreements%2C%20trade%20and%20development%20%28LSE%20RO%29.pdf](http://eprints.lse.ac.uk/30858/1/Libfile_repository_Content_Neumayer%2C%20E_Multilateral%20environmental%20agreements%2C%20trade%20and%20development_Multilateral%20environmental%20agreements%2C%20trade%20and%20development%20%28LSE%20RO%29.pdf)> accessed March 2021

<sup>341</sup> Ibid

<sup>342</sup> UNDP, 'Fast Facts on China's South-South and Global Cooperation' (21 September 2016)  
<<https://www.undp.org/china/publications/fast-facts-chinas-south-south-and-global-cooperation>> accessed March 2021.



assessing environmental impacts. Moreover, bilateral and multilateral development funding applies to 'green' projects. Thus, the operational budget of intergovernmental institutions is designed for collective environmental action.<sup>343</sup> International financial mechanisms are typically established to aid the management of global risks and environmental problems with the 'common heritage', as well as to raise public awareness.<sup>344</sup> Four typical examples of international funding exist historically. First, the World Heritage Fund (WHF) was established by the United Nations Educational, Scientific and Cultural Organization (UNESCO), Convention for the Protection of the World Cultural and Natural Heritage.<sup>345</sup> Secondly, there is the principle of 'subsidies' for developing countries to help them cover the costs of implementation and enforcement; for instance, a multilateral fund was established in the 1990 London Amendment of the Montreal Protocol<sup>346</sup> to assist parties that are developing countries.<sup>347</sup> Third, the World Bank established the Global Environment Facility (GEF) with the objective, among others, of enhancing states' capacity to fulfil treaty obligations.<sup>348</sup> The fourth is the Rainforest Trust Fund (RTF), which the World Bank also established to finance Brazilian Amazon and Atlantic rainforest projects.<sup>349</sup>

Furthermore, many special funds have been established by environmental agreements to assist countries with compliance and enforcement. The carrot

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<sup>343</sup> Sands (n 171)

<sup>344</sup> Ibid

<sup>345</sup> Convention concerning the Protection of the World Cultural and Natural Heritage (adopted 16 November 1972, entered into force 17 December 1975) 1037 UNTS 151

<sup>346</sup> Amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer (adopted 29 June 1990, entered into force 10 August 1992) 1598 UNTS, Article 10;  
See also: Montreal Protocol (n 285)

<sup>347</sup> Ibid;

It is formally entitled to obtain 'subsidies' for development to cover what it spends to participate in the treaty process. The subsidies also enable developing states to gain access to necessary substitute technologies.

The multilateral fund supports countries under Article 5 of the 1990 London Amendment

See The 1990 London Amendment (n 346)

<sup>348</sup> Ehrmann (n 282)

<sup>349</sup> Sands (n 171)

approach has been used more than the stick approach to facilitate the enforcement of international environmental law.<sup>350</sup> The procedure involves warning a country when it is non-compliant, which requires the country to develop a strategy to achieve compliance within a reasonable time. The carrot approach could also involve advice or warning a business to improve performance; otherwise, harder enforcement measures will be taken against it.<sup>351</sup> In practice, comprehensive assistance to support non-compliant parties as part of the carrot approach would accompany the warning.<sup>352</sup> Details of non-compliance mechanisms will be discussed in the next chapter.

### **2.5.1.2 Stick Approach**

The stick approach is based more on punishment measures or sanctions, which rely on their deterrent effect to secure compliance. Some literature names this approach as a punishment or negative.<sup>353</sup> This is a less common approach in international law, and one reason for this is that international institutions are relatively weak, as discussed above. This principle arises from the concept of the sovereignty of nation-states: countries cannot be compelled to sign a treaty, and it is uncommon for signatories to be obligated to comply with it.

Sometimes, trade measures have an important role to fulfil in certain multilateral environmental agreements.<sup>354</sup> Such trade sanctions take the stick approach. Rational free-riding has caused too much global pollution and resource wastage.<sup>355</sup> One punishment for free riding is the imposition of trade sanctions on the polluter. There

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<sup>350</sup> Neumayer (n 340)

<sup>351</sup> David C. Wilson, 'Stick or Carrot? The Use of Policy Measures to Move Waste Management Up the Hierarchy' [1996] 14 *Waste Management & Research* 385

<sup>352</sup> Romanin Jacur Francesca, 'Triggering Non-Compliance Procedures' in Tullio Treves and others (eds), *Non-compliance Procedures and Mechanisms and the Effectiveness of International Environmental Agreements* (T.M.C. Asser Press 2009) 374

<sup>353</sup> Andreoni (n 338)

<sup>354</sup> Neumayer (n 340)

<sup>355</sup> Cirone (n 170)

are three functions of trade sanctions. One is to deter internal and external free riding;<sup>356</sup> the second is to mitigate the emission leakage problems;<sup>357</sup> and the last is to restrict the trade of specified species or substances. Trade sanctions reduce the profitability of free-riding or illegal trade.<sup>358</sup> Some scholars have noted that the stick approach involves punishment for non-compliance and non-enforcement and may also involve environmental cooperation within or between states.<sup>359</sup> Considering enforcement approaches between states, the stick approach would be easily achieved within a country. State authorities can impose punishments for environmental violations, including administrative and criminal sanctions.<sup>360</sup> Most countries have compliance and enforcement agencies to improve environmental performance, such as the United States Environmental Protection Agency, which established a criminal enforcement program in 1982 and has full law enforcement authority granted to it by Congress.<sup>361</sup>

### 2.5.1.3 Responsive Regulation

Besides the carrot and stick approach, there is another enforcement approach that is neither solely cooperative nor rewarding nor a solely deterrent approach. This

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<sup>356</sup> An example is the use of restrictive trade measures on selling seafood in global markets to prevent overfishing.

<sup>357</sup> For example, countries may fail to comply with climate treaties because of trade tariffs based on the carbon content of the exports.

<sup>358</sup> For example, when using trade measures to fulfil environmental treaties, states can use the objectives of an MEA to restrict trade in hazardous waste; see also: Cirone (n 170)

<sup>359</sup> Andreoni (n 338)

<sup>360</sup> Farmer (n 41) 35-61

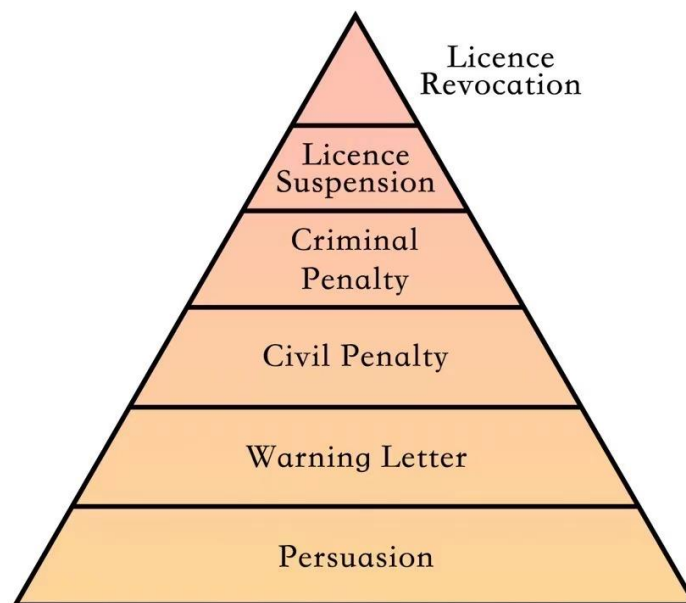
<sup>361</sup> Ibid;

See also: United States Environmental Protection Agency, 'Criminal Enforcement'

<https://www.epa.gov/enforcement/criminal-enforcement#:~:text=EPA's%20criminal%20enforcement%20program%20focuses,authority%20by%20congress%20in%201988> accessed March 2021

Another example is Denmark, where the Environmental Protection Agency (EPA) carries out its work through the administration of many laws and regulations. The administration's principles set down the rules by which the EPA works. The EPA supports a ministry structure with a small cabinet and large agencies through their independent committee.

approach is called responsive regulation.<sup>362</sup> Broadly, the responsive regulation approach involves enforcement and implementation, which includes inspecting regulated businesses.<sup>363</sup> This thesis only considers the enforcement dimension of responsive regulation. As discussed above, enforcement approaches can generally be characterised as the carrot and stick approaches. However, based on the different situations around the world, the approach cannot be applied simplistically.<sup>364</sup> Thus, responsive regulation synthesises these contradictory approaches to seek an explanation of regulatory compliance. Moreover, this approach proposes a theory about how to respond to plural carrot and stick regulatory enforcement strategies.<sup>365</sup>



source:Ayres and Braithwaite(1992)

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<sup>362</sup> VL Nielsen and C Parker, 'Testing Responsive Regulation in Regulatory, Regulation and Governance' (2009) 3 (4) Regulation & Governance 376

<sup>363</sup> L Ayres and J Braithwaite, *Responsive Regulation: Transcending the Deregulation Debate* (Oxford University 1992) 129

<sup>364</sup> Ibid

<sup>365</sup> Nielsen (n 362)

The responsive regulation approach described and prescribed how regulatory enforcement action promotes compliance better.<sup>366</sup> However, many scholars developed the idea of responsive regulation as ‘flexible enforcement’,<sup>367</sup> ‘regulatory pyramid’, ‘tit for tat’ regulatory enforcement,<sup>368</sup> and creative enforcement strategy.<sup>369</sup> Most enforcement within the pyramid involves persuading businesses to comply rather than sanctioning them to comply.<sup>370</sup> The theory of responsive regulation is mainly about ensuring appropriate relations between regulators and regulatees when they are being investigated, with enforcement action being proportionate to the violation that has occurred. The purpose of the regulator is to ensure that in pursuing their business aims, regulatees remain in compliance with the law.<sup>371</sup> For instance, the approach could involve education and persuasion but could become more punitive as a deterrent if circumstances demand. Scholars postulated various responsive pyramids involving an escalation from persuasion to the highest sanction. Usually, the bottom of the pyramid contains soft-regulatory approaches, such as persuasion, education and routing requests for information. The middle of the pyramid concerns the enforcement of soft regulation, such as issuing warning letters and other formal inquiries. At the higher end of the pyramid, the enforcement approaches are ‘harder’. The top of the pyramid must include enforcement measures like mandatory punishment or criminal penalties.<sup>372</sup>

There are three main categories of criticisms of responsive regulation: policy or

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<sup>366</sup> Ayres (n 363)

<sup>367</sup> R Kagan, ‘Regulatory Enforcement’ in D Rosenbolls and R Schwartz (eds), *Handbook of Regulation and Administrative Law* (Marcel Dekker Inc 1994)

<sup>368</sup> R Burby and R Paterson, ‘Improving Compliance with State Environmental Regulations’ (1993) 12 *Journal of Policy Analysis and Management* 753

<sup>369</sup> P May and R Buby, ‘Making Sense Out of Regulatory Enforcement’ (1998) 20 *Law & Policy* 157

<sup>370</sup> J Braithwaite, ‘The Essence of Responsive Regulation’ (2012) 44 (3) *U.B.C.L. Rev.* 475

<sup>371</sup> J Braithwaite, *Restorative Justice and Responsive Regulation* (Oxford University Press 2002) 29-30

<sup>372</sup> RB Macrory, ‘Regulatory Justice: Making Sanctions Effective’ (November 2006) <[https://www.regulation.org.uk/library/2006\\_macrory\\_report.pdf](https://www.regulation.org.uk/library/2006_macrory_report.pdf)> accessed March 2021

conceptual, practical, and principled.<sup>373</sup> In the case of policy or conceptual criticisms, step-by-step escalation up the pyramid may not be appropriate in some situations.<sup>374</sup> For example, enforcing by escalating up the layers of the pyramid may not be feasible while potentially catastrophic risks are being controlled, and in this condition, the appropriate reaction may be to resort to the higher level immediately.<sup>375</sup> The work of the regulator moving up and down the pyramid may depend on the cooperation of regulatees. If the regulatees cooperate and the breach is not very serious, then it is likely that enforcement measures remain near the bottom of the pyramid.<sup>376</sup> Regarding practical criticisms, it is viewed that using a measure such as a punitive sanction might cause disruption to the relationship between regulator and regulatee. However, it depends on the judgment of the regulator and whether disrupting the relationship is required in order to ensure compliance in the particular circumstances.<sup>377</sup> The strategies of responsive regulation are based on fairness and proportionality, so they should reflect substantive rationality. However, against that, the principled criticism is that there is a lack of formalism, which undermines the law and broader constitutional values.<sup>378</sup>

#### **2.5.1.4 Concluding Remarks on Enforcement Approaches**

There are extensive debates about enforcement approaches. The general idea accepted by scholars is that, regarding international treaties, the carrot approach is more appropriate than the stick approach for dealing with compliance and enforcement.<sup>379</sup> The responsive regulation approach partly depends on the

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<sup>373</sup> R Baldwin and J Black, 'Really Responsive Regulation' (2008) 71 (1) *The Modern Law Review* 59

<sup>374</sup> *Ibid*

<sup>375</sup> *Ibid*

<sup>376</sup> Gunningham (n 93)

<sup>377</sup> Nielsen (n 362)

<sup>378</sup> Baldwin (n 373)

<sup>379</sup> Neumayer (n 340)

cooperation of regulators and regulates,<sup>380</sup> however, many countries lack the regulations to improve their pyramid.<sup>381</sup> No matter what approach is adopted to enforcing environmental law at the international, national, and transnational levels, many challenges and opportunities will be encountered.

## **2.6 Key Themes of Environmental Law Enforcement**

Although different approaches to enforcement are debated, the purpose is the same: to improve enforcement. Therefore, there is a significant amount of theoretical literature on how to improve environmental law enforcement. In recent years, scholars have focused attention on how best to make environmental law enforcement effective, and this move has helped to clarify the key themes of environmental law enforcement.<sup>382</sup>

Empirical research shows that political issues can directly influence enforcement. Enforcement can also be influenced by the relationship among various government bodies involved in the process. The key themes to enhance enforcement that have emerged are (1) the independence of regulators, (2) the capacity of regulators, and (3) the deterrent effect of sanctions.<sup>383</sup>

### **2.6.1 Independence of Regulators**

Generally, there are enforcement authorities in national and local administrations, which are the institutions responsible for dealing with environmental law breaches. They are part of the government and are not and cannot be fully independent. The independence of regulators is applicable not only in the field of environmental law

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<sup>380</sup> See above: If the regulatee breach is not a very serious one, then it is likely that enforcement measures remain near the bottom of the pyramid.

<sup>381</sup> Baldwin (n 373)

<sup>382</sup> R Macrory, 'The Enforcement of Environmental Law: Challenges and Opportunities' [2016] 56 *Science for Environmental Policy* 3

<sup>383</sup> *Ibid*

enforcement but also in other law enforcement regimes. Indeed, the establishment and strengthening of the independence of regulators or regulatory agencies warrants that they are not under the direct control of politicians.<sup>384</sup> A critical OECD report directly recommended that regulatory enforcement should be independent of political influence.<sup>385</sup> However, possibly subject to a degree of governmental regulation, the independence of regulators varies in different countries.<sup>386</sup> For instance, the UK government rarely interferes with regulatory agencies because the legislation establishing them puts them at 'arms' length from the government.<sup>387</sup> The environmental enforcement regime in China is different. In consideration of local tax revenue or employment, 'umbrella' schemes set up by some local governments constitute barriers to inspection of the environmental authorities. Thus, implementation and enforcement may be influenced by local governments, which leads to weak enforcement.<sup>388</sup>

Furthermore, environmental law enforcement is, to a large extent, also subject to national culture and traditions.<sup>389</sup> In the past years, Chinese social connections called '*guanxi*' were apparent in enforcement procedures, whereby the regulator and regulated enterprise develop mutual understanding, or the former providing financial assistance to the latter. Such approaches based on '*guanxi*' have led local governments to revoke fines imposed by the Environmental Protection Bureau (EPB)

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<sup>384</sup> F Giardi and M Maggetti, 'The Independence of Regulatory Authorities' (29 November 2010) <[https://www.fabriziogilardi.org/resources/papers/gilardi\\_maggetti\\_handbook.pdf](https://www.fabriziogilardi.org/resources/papers/gilardi_maggetti_handbook.pdf)> accessed March 2021

<sup>385</sup> OECD, '*Public Consultation on Best Practice Principles for Improving Regulatory Enforcement and Inspections*' (OECD Report, 2013) <<https://www.oecd.org/gov/regulatory-policy/Best%20practice%20for%20improving%20Inspections%20and%20enforcement.docx>> accessed March 2021

<sup>386</sup> M Thatcher, 'Regulation After Delegation: Independent Regulation Agencies in Europe' (2002) 9 (6) *Journal of European Public Policy* 954

<sup>387</sup> Environment Act 1995 c 25

<sup>388</sup> OECD, '*Environmental Compliance and Enforcement in China- An Assessment of Current Practices and Ways Forwards*' (Second meeting of the Asia Environmental Compliance and Enforcement Networks, 5 December 2006)

<sup>389</sup> *Ibid*



on polluters or interfere with the court's execution of an administrative fine issued by EPB; although this approach appears to undermine enforcement, in practice, it has been applied with some success to ensure compliance by polluters.<sup>390</sup> Such interference makes the regulators much less independent because they are regularly impacted by government decisions. This may make enforcement ineffective or at least less effective, but as has been shown above, paradoxically, that might not necessarily be true.<sup>391</sup> Such 'guanxi' is based on a blend of exchanges and mutual affection and has a long tradition in Chinese life, which creates on the part of the government a feeling of responsibility and indebtedness to regulated businesses in an unofficial context and vice versa, which may assist the local government in securing compliance by the regulated business.<sup>392</sup>

Furthermore, the principle of 'effective independence' is also a requirement for the enforcement of international environmental law.<sup>393</sup> A typical example is the Convention on Nuclear Safety,<sup>394</sup> which makes it necessary for parties to establish a separate and independent regulatory body.<sup>395</sup> It also emphasises the reasons for the regulatory body to be independent, which include (1) the need to ensure that enforcement actions can be taken and regulatory judgement can be made without undue pressure from external interests and (2) the need to establish and preserve the

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<sup>390</sup> Ibid

<sup>391</sup> Ibid

<sup>392</sup> CH Yen, 'Xinyong (Trust), Guanxi (Relationship), Business Networks and Ethnic Chinese Business' [2013] *Ethnic Chinese Business in Asia* 135

<sup>393</sup> International Atomic Energy Agency (IAEA), *Governmental Legal Regulatory Framework for Safety* (2010) No. GSR Part 1, stated: '*The government shall ensure that the regulatory body is effectively independent in its safety related decision making and that it has functional separation from entities having responsibilities or interests that could unduly influence its decision making.*'

<sup>394</sup> Convention on Nuclear Safety (adopted 20 September 1994, entered into force 24 October 1996) 1963 UNTS

<sup>395</sup> IAEA, *Functions and Progresses of the Regulatory Body for Safety*, IAEA Safety Standards Series (2018) No. GSG-13

credibility of the regulatory body in the eye of the public.<sup>396</sup>

Although the independence of regulators is important in environmental law, in practice, there is usually a close relationship between regulatory bodies and government institutions in modern societies. This means that the regulatory bodies are not independent from all other government bodies and departments. However, it is recognised that some level of appropriate political guidance and oversight, which does not prevent regulatory bodies from carrying out their functions with high professionalism and independence is also necessary.<sup>397</sup> The UK system illustrates this point, as the government appoints Board members of the Environment Agency (EA) (but they must have the necessary expertise), gives statutory guidance to the EA on its functions, has the power to direct the EA and serves as an appeal body against the EA's permitting and enforcement decisions.<sup>398</sup> So, what is actually required is not total but relative independence of regulatory bodies because regulators are essentially governmental bodies, and some degree of government oversight of their role is necessary.<sup>399</sup>

## 2.6.2 Capacity of Regulators

Besides the independence of the regulator, the capacity of regulators is another key element of effective enforcement.<sup>400</sup> Regulation enforcement activities include

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<sup>396</sup> Ibid

<sup>397</sup> BD Malaika, 'Independence of Nuclear Regulatory in the Aftermath of the Fukushima Daiichi Nuclear Accident: A Comparative Approach' (Report for International Atomic Energy Agency Conference on Effective Nuclear Regulatory Systems, 8-12, April 2013)  
<<https://nuclearsafety.gc.ca/eng/resources/research/technical-papers-and-articles/2013/2013-independence-of-nuclear-regulators-in-the-aftermath.cfm>> accessed April 2021

<sup>398</sup> Environment Act 1995, s 1 and Sch 1 (appointment of Agency board members), s 4(2) (guidance to Environment Agency);  
Environmental Permitting (England and Wales) Regulations 2016, SI 2016/1154, reg 31, Sch 6 (appeals), reg 62 (directions to Agency)

<sup>399</sup> Thatcher (n 386)

<sup>400</sup> Ray Purdy, 'Using Earth Observation Technologies for Better Regulatory Compliance and Enforcement of Environmental Laws' (2010) 22 (1) Journal of Environmental Law 59

inspections or investigations, penalising breaches, issuing warnings, and even subjecting unresolved breaches to administrative or judicial review procedures.<sup>401</sup>

Generally, the definition of capacity includes the amount of resources and level of expertise available to the regulators; this will include the scale of budget, number of staff and their training, laboratory equipment, etc.<sup>402</sup>

Firstly, the legislative framework is a crucial aspect of capacity. Four aspects need to be reviewed in considering how the institutional framework can enhance enforcement: the legislation, the judiciary, the regulatory agencies, and the local governments.<sup>403</sup> Legislation is the norm that guides the work of the judiciary, regulatory agencies, and local governments.

The role of regulators is significant in the law enforcement regime. Even though the regulatory resource commitment is limited, the regulators could create the impression of substantial capability and threat of enforcement.<sup>404</sup> Environmental enforcement is usually not the job of just a single department or agent; it is often collaborative in nature, involving different branches of government and perhaps the criminal justice system.<sup>405</sup> Potentially, the weaknesses in one regulator's capacity can be made up through resources available to other agencies in the network, which could be within a state or between agencies in different states. Therefore, in building capacity, new regulators are typically required to address certain issues, such as compliance culture, staff training, business continuity, and corporate knowledge, and to establish

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<sup>401</sup> Thatcher (n 386)

<sup>402</sup> Grant Pink, 'Building Regulatory Capacity Environmental Agencies: Through Tailored Training' (8<sup>th</sup> International Conference on Environmental Compliance and Enforcement, 2008) 225

<sup>403</sup> OECD, *Institutional Capacities for Better Regulation* (OECD Publishing, 2010)  
<<https://www.oecd.org/gov/regulatory-policy/44912334.pdf>> accessed April 2021

<sup>404</sup> Purdy (n 400)

<sup>405</sup> Deborah Kopsick and Susan Elizabeth Bromm, 'North American Working Group on Environmental Enforcement and Compliance Cooperation: Moving from Capacity Building to Operational Activities' in Michael Faure, Peter De Smedt and An Stas (eds), *Environmental Enforcement Networks: Concepts, Implementation and Effectiveness* (Edward Elgar Publishing 2015) 305-320

credibility with co-regulators and the regulated community.<sup>406</sup>

The capacity building for regulators is about more than just staff training. It includes acquiring for use other resources such as information from other departments or non-governmental organisations (NGOs)<sup>407</sup> as well as new technologies for better inspection. Such capacity building for regulators is needed to allow for expanded cooperation.<sup>408</sup> For example, the problems relating to the capacity of regulators have been identified in Kenya and one of the goals of East African Network for Environmental Compliance and Enforcement (EANECE) is to deal with these problems by strengthening the capacity of environmental regulators in East Africa for effective enforcement and compliance with environmental laws and regulations.<sup>409</sup> EANECE does this by organising regular conferences for experience sharing and publishing operational manuals and guidelines for regulators.<sup>410</sup>

Moreover, the capacity of regulators also includes their technical capabilities, and at a simpler level, this is about having laboratories.<sup>411</sup> The regulatory agency includes the individual staff and the technology available to them. Regulatory agencies can introduce appropriate technology to support and ensure effective enforcement as technology develops. For instance, the Environmental Agency in England implemented an intelligence-led approach to combat the illegal export of waste, utilising data collection technologies in the execution of its duties. This technology involved using finer resolution of satellite mechanisms to alert the agency of potential law breaches, monitor high-risk offenders and provide evidence of such

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<sup>406</sup> Pink (n 402)

<sup>407</sup> There are many NGOs that provide information, knowledge, or experience in their own way. For example, Basel Action Network (BAN) is a trusted expert, passionate advocate, and global partner for environmental justice, providing support for the Basel Convention.

<sup>408</sup> Farmer (n 41)

<sup>409</sup> See EANECE <<http://www.eanece.org>> accessed April 2021

<sup>410</sup> Ibid

<sup>411</sup> A simple example is the existence or quality of environmental monitoring equipment and laboratories available to a regulator.

A more advanced example of technical capabilities is evidenced in Purdy (n 400)

activities to support the work of legal experts.<sup>412</sup> With the development of technology, drones are increasingly used to assist with enforcement and inspection.<sup>413</sup>

### 2.6.3 Deterrence

For the effectiveness of environmental law, legislators and administrators have sought strict punishment and penalties to deter the environmentally destructive behaviour of offenders.<sup>414</sup> Scholars have noted that 'general deterrence' is significant in enhancing compliance with regulatory laws and that such deterrence was the basis of the 'pyramid sanctions', which involves informal pressures by issuing warnings, demands for remedial action and repeated re-inspection,<sup>415</sup> as well as formal enforcement when there is a failure to remedy the violation. Such formal enforcement may include administrative action, civil judicial action and criminal judicial action.<sup>416</sup> The significance of a deterrence-based approach in the enforcement of environmental law is to potentially discourage companies or individuals from engaging in environmentally harmful conduct, whether intentional or involuntary, punish polluters, and possibly provide a measure of compensation for victims and a means to restore the damaged environment.<sup>417</sup>

Many countries and regions have legislation that includes administrative sanctions, civil sanctions, and criminal penalties to deter environmental violations. For

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<sup>412</sup> Macrory (n 382)

<sup>413</sup> Muriel Cabianca, Maria Laura Clemente, Gianlica Gatto, Carlo Impagliazzo, Lidia Leoni, Martine Masia and Riccardo Piras, 'An Application of IoT in a Drone Inspection Service for Environmental Control IoT' (2022) 3 (3) *IoT* 366

<sup>414</sup> Bradley C. Howard, 'Wielding the Big Stick: Deterrence and the Criminal Enforcement of Environmental Laws' (1991) 15 (2) *Wm. & Mary Env'tl. L. & Pol'y Rev* 29

<sup>415</sup> Dorothy Thornton, Neil A. Gunningham and Robert A. Kagan, 'General Deterrence and Corporate Environmental Behaviour' (2005) 27 (2) *Law & Pol'y* 262

<sup>416</sup> Matthew D. Zinn, 'Policing Environmental Regulatory Enforcement: Cooperation, Capture and Citizen Suits' (2002) 21 (1) *Stan. Env'tl. L J* 81

<sup>417</sup> Jacob Oberg, 'Criminal Sanctions in the Field of EU Environmental Law' (2011) 2 (4) *New Journal of European Criminal Law* 402

example, the Regulatory Enforcement and Sanctions Act 2008 introduced civil sanctions into environmental law in England (achieved by the Environmental Civil Sanction (England) Order 2010 made under the 2008 Act).<sup>418</sup> Also, the EU Environmental Crime Directive 2008 emphasised the role that criminal law could play in dealing with breaches of environmental law within the EU.<sup>419</sup> Administrative financial sanctions exist in Israel, although the criminal response is also a significant deterrent in their environmental enforcement regime.<sup>420</sup>

For many years, the United States has had a traditional deterrence-approach-based enforcement regime; however, it has shifted towards more compliance-approach-based enforcement.<sup>421</sup> This may reflect the relative lack of independence and changing political direction of the Environmental Protection Agency of the United States, whose Chief Administrator is a presidential appointee and who changes with each change of President.

It is also the case that in terms of approaches, available sanctions can have a deterrence effect regardless of whether a deterrence-based approach to enforcement is taken. Actually, deterrence-based approach enforcement may not always lead to the deterrence effect. The deterrence approach is the idea that regulators punish as many violations as possible, while it does not necessarily mean multiple enforcement actions for every violation but rather that the enforcement actions taken have a deterrent effect. If a regulator enforces reasonably often and the sanctions available

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<sup>418</sup> Regulatory Enforcement and Sanctions Act 2008 s 3;  
The Environmental Civil Sanctions (England) Order 2010

<sup>419</sup> Council Directive 2008/99/EC on the European Parliament and of the Council of 19 November 2008 on the Protection of the Environment Through Criminal Law (Text with EEA relevance) [2008] OJ L328/28

<sup>420</sup> Daniel Rosenblatt, 'Proposed Changes to Israel's Economic Sanction Regime' (Herzog Fox & Neeman, 1 February 2022) <<https://www.lexology.com/library/detail.aspx?g=96f0229b-75e2-4b42-95a4-9301bd6e5a17>> accessed April 2022

<sup>421</sup> Robert L. Glicksman and Dietrich Earnhart, 'Coercive vs. Cooperative Enforcement: Effect of Enforcement Approach on Environmental Management' [2015] 42 International Review of Law and Economics 135

are tough, there will be a deterrent effect. In addition, well-publicising a few high-profile enforcement cases coupled with the regulator having a tough enforcement toolkit that it threatens to use to secure compliance should also have a deterrent effect.

Moreover, it has been argued that the coercive approach to sanctions is not substantially effective on its own and would require a combination with the cooperation approach to improve its effectiveness. Some spirited debate has explored the coercive approach, which is deterrence-based enforcement that delivers messages that the form of sanction is unlikely to be the most effective enforcement approach.<sup>422</sup> That is because different environmental and governmental agencies are involved in national enforcement in many jurisdictions. Most studies believe that the development of coordination strategies would be vital.<sup>423</sup> There are three situations in which deterrence-based enforcement may not be efficient and effective as a primary strategy: (1) if the environmental violation results from unclear regulatory requirements, (2) if the polluting enterprise took reasonable risk but still caused the environmental violation, and (3) if the violation was caused by a company that adopted environmentally-protective measures which were above the requirements of law.<sup>424</sup> Indeed, for the deterrence effect to be effective in promoting compliance, enforcement must be combined with the cooperation approach.<sup>425</sup>

## 2.7 Conclusion

This chapter has examined the general understanding of environmental law enforcement and has considered enforcement by different subjects at the

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<sup>422</sup> Thornton (n 415)

<sup>423</sup> Macrory (n 382)

<sup>424</sup> Les. Carlough, 'General Deterrence of Environmental Violation: A peek into the mind of the regulated public' (State of Oregon Department of Environmental Quality) <<https://www.oregon.gov/deq/FilterDocs/DeterrenceReport.pdf>> accessed April 2021

<sup>425</sup> Kolari (n 339)

international and national levels, as well as enforcement by non-state actors. Globally, environmental damage may not just affect state territories but could also affect areas of common concern and even future generations. Moreover, states are not the only legal entities empowered to play the role of enforcer; international organisations and non-governmental organisations increasingly play essential roles in international and national enforcement of environmental laws.

It has discussed four enforcement mechanisms of international environmental law: financial assistance, networks and cooperation, non-compliance, and international dispute settlement. It has also addressed the distinctions between international and national enforcement concerning law, institutions, and enforcement. Additionally, enforcement approaches have been discussed, including the carrot-and-stick approach, responsive regulation, as well as cooperative and deterrence-based approaches.

There is a significant debate on the enforcement of environmental law. Enforcement is not only about who will be punished if the law is breached but also about collaboration and cooperation between states at the international level and national enforcement authorities and departments at the state level. This demonstrates the potential significance that networks could play, which is developed further in this thesis. On the other hand, states' legislation and institutions are significant for enforcement. National agencies increasingly adopt the responsive regulation pyramid to enforce environmental regulation systematically.

Lastly, this chapter has established three key themes of environmental law enforcement: the independence of regulators, the capacity of regulators and the deterrence effect of enforcement. It provides a framework for thinking about enforcement throughout the rest of the thesis and for considering how networks might enhance enforcement in relation to these key themes. The following two chapters examine, first, the Basel Convention and, second, how the Basel Convention



is enforced at the international level and national level by applying the framework developed here concerning enforcement.

## Chapter 3 The International Regime on Trade in Hazardous Wastes - The Basel Convention

### 3.1 Background and Aim

With the rapid development of economies globally, waste production has grown continuously and rapidly.<sup>426</sup> Since the 1980s, many governments have unequivocally realised the danger of hazardous waste pollution.<sup>427</sup> Hazardous wastes, such as corrosive acids, organic chemicals, and toxic metals, cause disposal problems. In the meantime, storage and disposal of these hazardous wastes negatively impact the environment and human health. Additionally, the cost of storage and disposal of these hazardous wastes has increased dramatically.<sup>428</sup> For these reasons, the environmental standards of countries around the world, especially some developed states, have become stricter.<sup>429</sup>

In order to lower the cost of waste storage and disposal, hazardous waste producers seek an easy and cost-effective way to deal with waste and protect the domestic environment.<sup>430</sup> Because of the different economic, technological, and legislative development levels of developed and developing states, wealthier countries started exporting waste to poorer states.<sup>431</sup> In the 1980s, transboundary movements of

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<sup>426</sup> Sands (n 171) 609

<sup>427</sup> Since the 1980s, a series of hazardous waste pollution cases have occurred around the world, such as the Love Canal Tragedy in America, Soil Pollution in the Netherlands, and Dioxin pollution in Seveso, Italy.

<sup>428</sup> Weichun Chen, '论危险废物越境转移的法律控制---巴塞尔公约和巴马科公约比较研究' [Legal Control of Transboundary Movement of Hazardous waste – comparative analysis of Basel Convention and Bamako Convention] (2006) 1 (1) Journal of North China Electric Power University Social Science 58

<sup>429</sup> The principle of "NOT IN MY BACK YARD" (NIMBY) that emerged in developed countries in the 1980s.

See also: Gilbert Marks, 'Not in My Back Yard' (1988) 3 (3) Natural Resources & Environment 33

<sup>430</sup> Weichun Chen, '危险废物越境转移法律制度研究' [The legal Research on Transboundary Movement of Hazardous Wastes] (PhD Dissertation, Wuhan University 2005)

<sup>431</sup> Sands (n 171) 619-620

wastes between Western European countries and Eastern European countries happened more than 20,000 times per year. Finally, most of this waste is dumped in developing countries.<sup>432</sup> Meanwhile, developing countries cannot effectively deal with imported waste because they lack the required technology and financial capacity.<sup>433</sup> Most developing countries use simple and primitive approaches to dispose of their waste.<sup>434</sup> Therefore, more international transboundary incidents have occurred.<sup>435</sup>

Although waste trading supplies low-cost second-hand materials to developing countries, the transboundary movement of wastes imposes additional risks and dangers. In the late 1970s, the international community began to consider controlling waste trading to deal with the problem.<sup>436</sup> Thus, waste is addressed in different international treaties and instruments. The definition of waste was not mentioned in the United Nations Conference on the Human Environment held in Stockholm in 1972. Still, it called for the discharge in environmentally harmful proportions of toxic or other substances to be halted in Principle 6 of the Stockholm Declaration.<sup>437</sup> Since the Stockholm Conference, waste pollution issues have become more clearly reflected in international environmental law. Hazardous waste issues were initially seen as a domestic matter, but by the 1980s, it was clear that hazardous waste trading was impacting the international community, particularly developing states. This led

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<sup>432</sup> Chen (n 428)

<sup>433</sup> Jennifer Clapp, 'The Toxic Waste Trade with Less-Industrialised Countries: Economic Linkages and Political Alliances' (1994) 15 (3) *Third World Quarterly* 505

<sup>434</sup> Most developing countries dispose of waste by burning and burying it. These approaches can pollute groundwater, air, and other resources

<sup>435</sup> Jane Kaiz, 'What a Waste: The Generation and Disposal of Trash Imposes Costs on Society and the Environment, should we be doing more?' [200] 12 *Regional Review* Federal Reserve Bank of Boston 22

<sup>436</sup> David Hunter, James Salzman and Durwood Zaelke, *International Environmental Law and Policy* (2<sup>nd</sup> edn, Foundation 2002) 157-158

<sup>437</sup> See (n 180)

Sands (n 171) 609-610

to the development of the Basel and Bamako regimes.<sup>438</sup> In 1989, after 18 months of negotiations, 105 countries and the EU signed and agreed to the final text of the Basel Convention. Twenty countries ratified it in May 1992, by November 2014, 181 countries had become contracting states.<sup>439</sup>

This chapter discusses the legal regime in controlling the transboundary movement of hazardous waste within the lens of the Basel Convention. The Basel Convention, as the only global treaty on the control of transboundary movement of hazardous wastes, is legally enforced through its Conferences of the Parties, and enforcement principally depends on efforts undertaken by state parties to the Basel Convention at the national level. This chapter also discusses the background and aim of other legal regimes relevant to controlling the transboundary movement of hazardous waste, particularly the Lomé Convention (IV) and the Bamako Convention. It examines the principal features of the Basel Convention and each Conference of the Parties while analysing the weaknesses of the Basel Convention.

Lastly, the weaknesses and deficiencies of the Basel Convention have been discussed in the later part of the chapter based on the analysis of content and COPs. This chapter will identify the understanding of the Basel Convention, and subsequent chapters will address its enforcement and identify ways of overcoming its weaknesses.

### **3.2 General Analysis of the Regulation of the Transboundary Movement of Hazardous Wastes**

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<sup>438</sup> Katharina Kummer, *International Management of Hazardous Waste: the Basel Convention and Related Legal Rules* (Clarendon Press 1995) 40-45

<sup>439</sup> Basel Convention (n 23)

See also: Bin Chen and Xiaohong Zhong, ‘剖析《控制危险废物越境转移及其处置的巴塞尔公约》---透视不足,直面缺陷,展望未来’ [Analysis the Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and their Disposal – perspective of lack, face to defect and look ahead] [2006] Environment and Resources Law Society of China Law Society 1008

There are now several regional agreements and treaties focused on controlling this phenomenon.

### 3.2.1 Definition of Hazardous Waste

The regulation of waste in international law starts from the definition of waste. However, there is no uniform definition of waste in international law. That is because 'waste is not just waste' but also a potentially valuable source of recycled material, and it relates to the economic interest and environmental interests of nations. In terms of international transboundary waste, it brings economic benefits but may harm the environmental interests of importing states; for exporting states, there might be less economic benefit, but this is exchanged for environmental benefits.<sup>440</sup>

Expressly, different definitions of hazardous wastes are contained in international legal regimes. In international law, there are three typical definitions of waste. First, since 1972, the Convention on The Prevention of Marine Pollution By Dumping of Wastes And Other Substances defines '*Wastes or other matter*' as '*material and substance of any kind, form or description*',<sup>441</sup> and lists the substances that cannot be dumped at sea, those that can be dumped at sea after special permission is obtained, and substances that can be dumped at sea at a prescribed time, location and manner after general permission is obtained.<sup>442</sup> Secondly, the then European Community addressed the scope of waste in the 1975 Waste Framework Directive as

*'waste means any substance or object which the holder disposes of or is required to dispose of pursuant to the provisions of national law in force'*.<sup>443</sup>

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<sup>440</sup> Kummer (n 438) 49-50

<sup>441</sup> London Convention 1972 (n 29) Article III 4

<sup>442</sup> Ibid Article IV

<sup>443</sup> Council Directive 75/442/EEC of 15 July 1975 on Waste [1975] OJ L 194

Then, in 1989, the Basel Convention defined 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.'<sup>444</sup> UNEP also defined hazardous wastes in 1996, characterising the term as that which has chemical, toxic, explosive, corrosive or other properties harmful to plants, animals and/or the environment<sup>445</sup>

In the Basel Convention, waste is divided into hazardous and other wastes.<sup>446</sup>

Hazardous waste is specifically defined in the convention as waste having characteristics including explosive, flammable, corrosive, chemical reactions, acute or chronic toxicity, ecotoxicity, infectious and other harmful characteristics, solid, liquid, and gaseous wastes generated in the process of production, product development, operation, the teaching, researching and other process.<sup>447</sup> Under the Basel Convention, hazardous wastes include wastes that do not otherwise fall within the Convention definition but are defined as hazardous in domestic legislation in import countries, export countries, and transit countries.<sup>448</sup> Under the Convention, other wastes refer to wastes '*collected from households and residues from household*

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This definition has subsequently been revised in the amendments to Directive 75/442/EEC, made by Council Directive 91/156/EEC of 18 March 1991 amending Directive 75/442 EEC on waste [1991] OJ L 78

It was replaced by the definition in Council Directive 2006/12/EC of the European Parliament and of the Council of 5 April 2006 on waste (Text with EEA relevance) [2006] OJ L 114, and then by the current definition, which is in Council Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives (Text with EEA relevance) [2008] OJ L 312

<sup>444</sup> Basel Convention (n 23) Article 2 (1)

<sup>445</sup> UNEP definition cited by Renmin University of China Researchers, *A complete work of the policies laws and regulations concerning China's environment and natural resources* (CITIC Publisher 1996) 1012

<sup>446</sup> Basel Convention (n 23) Article 1

<sup>447</sup> Ibid;

The Basel Convention refers to hazardous wastes as any substance a) that belongs to any category contained in Annex I unless it does not possess any of the characteristics contained in Annex III. Kummer (n 438) 44-55

<sup>448</sup> Basel Convention (n 23) Article 1 (b)

*arising from incineration of household wastes.*<sup>449</sup>

The definition of wastes (including hazardous and other waste) in this research aligns with the Basel Convention's definition. However, the definition of hazardous wastes and other wastes under the Convention is limited<sup>450</sup> to '*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*'.<sup>451</sup> An ambiguous definition leads to a different understanding of the provisions of the Basel Convention. Further, it leads to difficulties in implementation and enforcement against illegal behaviour regarding the transboundary movement of hazardous wastes.<sup>452</sup>

### **3.2.2 International Legal Regime on Transboundary Movement of Hazardous Wastes**

Three other critical international instruments must be examined before analysing the Basel Convention.

1) The first one is the Cairo Guidelines and Principles for the ESM of Hazardous Wastes (Cairo Guidelines and Principles), adopted on 17 June 1987.<sup>453</sup> The Cairo Guidelines and Principles aimed at global standardisation of environmental management and prepared for the development of a legally binding international instrument.<sup>454</sup> It introduced joint responsibility for exporting and importing countries to ensure the protection of the environment.<sup>455</sup>

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<sup>449</sup> Basel Convention (n 23) Annex II

<sup>450</sup> Andrews (n 147)

<sup>451</sup> Basel Convention (n 23) Article 2 (1)

<sup>452</sup> The weakness of the definition will be discussed in Chapter 3 (3.5.1) below.

<sup>453</sup> Cairo Guidelines and Principles for the Environmentally Sound Management of Hazardous Waste (adopted 17 June 1987) UNEP/GC. 14/17

<sup>454</sup> Susanne Rublack, 'Controlling Transboundary Movements of Hazardous Wastes: The Evolution of a Global Convention' (1989) 13 (1) The Fletcher Forum of World Affairs 113

<sup>455</sup> Cairo Guidelines (n 453) Article 26 and Article 27

2) In December 1989, the European Community and 69 African, Caribbean and Pacific states (ACP) signed the Lomé Convention (IV). Lomé IV provides for environmental issues, and Article 39 specifically provides for the transboundary movement of hazardous wastes.<sup>456</sup> Article 39 requires parties to make every effort to ensure that the transboundary movement of hazardous wastes is under control generally. It also prohibits the export of hazardous wastes and radioactive wastes from European Community member states to ACP states directly and indirectly and requires that ACP states not import any hazardous wastes and radioactive wastes from the European Community and/or any other country.<sup>457</sup>

According to the Article 39 of Lomé IV is obviously imbalanced in its approach to the European Community and ACP states: while it required ACP states to prohibit the import of hazardous wastes not only from the European Community but also from other countries, including non-parties, it obliged the European Community only to ban the export of hazardous wastes to ACP states but is silent about export to other non-ACP countries which is therefore permitted.<sup>458</sup> Secondly, compared with the definition of hazardous wastes in the Basel Convention, wastes as defined in Lomé IV is broader, which contained all wastes in Annex I and Annex II but must not have any characteristic of Annex III of the Basel Convention.<sup>459</sup> Indeed, Lomé IV is the first legally binding international convention to prohibit the export of hazardous wastes and radioactive wastes from developed countries to developing countries.<sup>460</sup>

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<sup>456</sup> African, Caribbean and Pacific States-European Community: Fourth Lomé Convention (adopted 15 December 1989, entered into force 1 September 1991) 29 ILM 783 (1990)

<sup>457</sup> Ibid Article 39 (1)

Lomé I was signed in 1975, and Lomé II and III were signed in 1979 and 1985, respectively

<sup>458</sup> Chen (n 430)

<sup>459</sup> Basel Convention (n 23) Annex III;

Lomé Convention (IV) (n 456);

Xi Wang, *国际环境法* [International Environmental Law] (China Legal Publishing House 1998) 331

<sup>460</sup> Xianglan Zhang and TianBao Qin, ‘控制危险废物越境转移的巴塞尔公约及其最新发展:从框架到实施’ [Development of Basel convention on Control Transboundary Movement of Hazardous Wastes - from Framework to Enforcement] (2003) 3 Legal Review 96



2) The Preamble of the Basel Convention fully recognises '*that any State has the sovereign right to ban the entry or disposal of foreign hazardous waste and other waste in its territory.*' One of the first results of this provision was that negotiations on regional agreements started in different areas to prohibit the importation of hazardous wastes into developing countries.<sup>461</sup> After the Coco Port waste pollution case,<sup>462</sup> the Council of Ministers of the Organisation of African Unity (OAU) (now African Union (AU)) condemned the incident in a 1988 resolution as a crime to Africa and the African people and called on African countries to adhere to the Cairo Guidelines and Principles,<sup>463</sup> and ban the import of hazardous waste.<sup>464</sup>

Hazardous waste is no stranger to African countries; it is estimated that about 100,000 tons of waste pesticides are stored in Africa,<sup>465</sup> and developing African countries do not have the same advanced resources and capacity to manage and dispose of these hazardous wastes as developed countries. Simple storage containers or dumping of hazardous wastes directly on land has resulted in the leakage of toxic substances into water bodies and the contamination of the food chain.<sup>466</sup>

After the Basel Convention, the Bamako Convention on the Ban on the Import of Hazardous Wastes into Africa and the Control of their Transboundary Movement within Africa (Bamako Convention) was signed in 1991, which protects Africa from becoming a hazardous waste dumping ground for developed states. It is worth mentioning that neither the Basel Convention nor the Bamako Convention bans State Parties from importing and /or exporting hazardous wastes from or to non-parties.<sup>467</sup>

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<sup>461</sup> Andrew Webster-Main, 'Keeping Africa Out of the Global Backyard: A Comparative Study of the Basel and Bamako Convention' (2002) 26 Environmental Law & Policy Journal 65

<sup>462</sup> Liu (n 16)

<sup>463</sup> Cairo Guidelines (n 453)

<sup>464</sup> Kummer (n 438) 99

<sup>465</sup> Report of NCNA: 'The World is Moving Towards the Control of Toxic Chemical Substances' (New China News Agency, 20 February 2002)

<sup>466</sup> Kummer (n 438) 99

<sup>467</sup> Basel Convention (n 23) Article 11 ;

However, it caused a gap in the extent to which a Party to the Basel Convention could import or export hazardous waste from a non-party to the Basel Convention. For example, Nigeria can import waste from the US because the US is not a Party to the Basel Convention.<sup>468</sup> The Bamako Convention does not prohibit intra-African trade in hazardous waste, potentially permitting significant amounts of such trade. This is potentially a problem since some African states, such as South Africa and Nigeria, are more industrialised and powerful than others. So, while banning imports into Africa is a welcome step, it remains unclear how much hazardous waste is traded within Africa and whether lesser-developed states accept hazardous waste from the more developed African states.

Corresponding to the Basel Convention, the Bamako Convention, in its Preamble, recognised:

*the sovereignty of States to ban the importation into, and the transit through, their territory of hazardous wastes and substances for human health and environmental reasons; and 'the increasing mobilisation in Africa for the prohibition of transboundary movements of hazardous wastes and their disposal in African countries'* <sup>469</sup>

The OAU expected that establishing a multilateral convention to implement the transboundary movement of hazardous wastes and other wastes into Africa would be more effective than a unilateral ban under the Basel Convention.<sup>470</sup> This is because

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Bamako Convention (n 26) Article 11

<sup>468</sup> Fatsah Ouguergouz, 'The Bamako Convention on Hazardous Waste: A New Step in the Development of the African International Environmental Law' [1993] 1 African Yearbook of International Law 195;

Although US is not the party of Basel Convention, Nigeria is party of Basel Convention. Nigeria signed and ratified the Basel Convention in 1991. See Basel Convention Country Fact Sheet - Nigeria UNEP-CHW-CFS-Nigeria

Moreover, Nigeria has signed the Bamako Convention in 1998, but not yet ratified it.

<sup>469</sup> Bamako Convention (n 26) Preamble

<sup>470</sup> Chen (n 430)

the Basel Convention did not entirely prohibit the transboundary movement of hazardous wastes into developing states, and the Basel Ban Amendment was not agreed upon until COP3 in 1995. Finally, after 25 years, the amendment to the Basel Convention containing the Basel Ban entered into force on 5 December 2019.<sup>471</sup> As a supplement to the Basel Convention, the Bamako Convention completely prohibits the importation of hazardous wastes to African countries, even the wastes used for recycling. However, the Bamako Convention does not prohibit the export of hazardous wastes from African countries or trade between African countries.<sup>472</sup>

The definition of hazardous wastes in the Bamako Convention is similar to the Basel Convention, but there are also some differences. Firstly, the Bamako Convention only defines one type of hazardous waste, but the Basel Convention defines hazardous wastes and other wastes;<sup>473</sup> secondly, the Bamako Convention provide that a substance, if it is listed in Annex I of the Convention or possesses any of the characteristics in Annex II, would be identified as hazardous waste;<sup>474</sup> thirdly, the scope of hazardous wastes in the Bamako Convention is broader than in the Basel Convention,<sup>475</sup> and the Bamako Convention includes all hazardous substances prohibited in their country of manufacture as hazardous wastes, whether or not they are defined as wastes in the Convention.<sup>476</sup> And, '*Wastes which, as a result of being*

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<sup>471</sup> UNEP Amendment to the Basel Convention (1995) UNEP/CHW. 3/34 BC- III/1, for more details, please see the 'Basel Ban' discussed below.

<sup>472</sup> Chen (n 430)

<sup>473</sup> Ibid

See also: Basel Convention (n 23), Article 1 (2) provides, wastes also include 'other wastes'. Please see 3.2.1 of this chapter. The scope of the Bamako Convention was addressed in Article 2 but did not mention 'other wastes.'

<sup>474</sup> Bamako Convention (n 26) Article 2(1) (2)

See also: Webster-Main, supra n. 461.

<sup>475</sup> Bamako Convention (n 26) Article 2 s 1(d) stated: '*which have been banned, cancelled or refused registration by government regulatory action, or voluntarily withdrawn from registration in the country of manufacture, for human health or environmental reasons*'; but the statement under Basel Convention is '*...by the domestic legislation of the Party of export, import or transit*'. In addition, the scope of the Bamako Convention includes radioactive wastes, but the Basel Convention excludes it.

<sup>476</sup> Ibid;

see also: Chen (n 428)

*radioactive, are subject to any international control systems, including international instruments, applying specifically to radioactive materials are included in the scope of this Convention.*<sup>477</sup>

In addition, the Bamako Convention did not distinguish between wastes for recycling and wastes for disposal as the Basel Convention does.<sup>478</sup> This may be a positive feature for enforcement as it means that all hazardous wastes must be regulated in the same way rather than having potentially differing regimes for wastes intended for recycling or disposal. Finally, the most significant distinction between the two conventions is that the Bamako Convention provides thus:

*Each Party shall strive to adopt and implement a preventive, precautionary approach to pollution problems. This approach entails, inter alia, preventing the release into the environment of substances that may cause harm to humans or the environment without waiting for scientific proof regarding such harm.*<sup>479</sup>

It, therefore, has a much stronger focus on prevention than the Basel Convention.

Furthermore, the provisions for the transboundary movement of hazardous wastes within the Parties of the Bamako Convention are similar to the requirements for Prior Informed Consent (PIC) in the Basel Convention.<sup>480</sup> However, the Bamako PIC system procedure is stricter than that in the Basel Convention.<sup>481</sup> The Bamako Convention provides that Parties shall bear the duty of re-import and punishment for illegal traffic if the parties breach the terms of the contract.<sup>482</sup> Compared with the

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<sup>477</sup> Bamako Convention (n 26) Article 2 s 2

<sup>478</sup> Chen (n 428)

<sup>479</sup> Bamako Convention (n 26) Article 4 s 3(f)

<sup>480</sup> See Chapter 3, 3.3.2.4 below

<sup>481</sup> Bamako Convention (n 26) Article 3 s 3, s 4 required that '*Parties shall be responsible for making the information transmitted to them by the Secretariat under Paragraph 3 of this Article available to their exporters and other appropriate bodies*', which is not sited in the Basel Convention.

<sup>482</sup> Ibid Article 8, Article 9

Basel Convention, the provision of re-import and punishment is stricter, which requires that wastes be re-imported to exporting states in all cases rather if alternative arrangements cannot be made for their disposal as provided by the Basel Convention.<sup>483</sup> People who plan, implement, and assist in illegal trade are to be subject to criminal legislation by appropriate domestic laws and regulations of each Party.<sup>484</sup> The penalty must not only be sufficient to punish illegal traffic but also to deter such illegal behaviour.<sup>485</sup> Although this is strong language, it still depends on national implementing measures and enforcement mechanisms, which may still be subject to issues of capacity and resources.

As the analysis above illustrates, these treaties recognise the difficulties of policing hazardous waste trade or movement from developed to developing states and opt for a prohibition on imports as the best way of protecting developing states.<sup>486</sup> However, the effectiveness of this approach is still dependent on enforcement.

### **3.3 Main Content of Basel Convention**

#### **3.3.1 Aim of the Basel Convention**

The Basel Convention aims to protect human health and the environment from the dangers caused by the generation, transfer and disposal of hazardous and other wastes.<sup>487</sup> To achieve the aim, the key general requirements of the Basel Convention are:

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<sup>483</sup> Ibid Article 8

<sup>484</sup> Ibid Article 9(2)

<sup>485</sup> Ibid;

See also: Webster-Main (n 461)

<sup>486</sup> The Waigani Convention (n 29), a similar agreement, has been adopted in the South Pacific region

<sup>487</sup> Basel Convention (n 23) Preamble

- 1) decreasing the transboundary movement of hazardous wastes to the minimum in a manner consistent with the principle of the ESM;<sup>488</sup>
- 2) reducing the rate of production of hazardous wastes and harm resulting from poor environmental management; ensuring the disposal of hazardous wastes under ESM and in situ as far as possible;<sup>489</sup>
- 3) requiring Parties to cooperate to develop and implement relevant technology and regulations, especially helping developing states dispose of hazardous and other wastes using ESM mechanisms.<sup>490</sup>

### **3.3.2 Legal Regime and Limitation of Hazardous Wastes under the Basel Convention**

The Basel Convention contains specific provisions on transboundary movements of hazardous wastes and other wastes, which include the Basel Ban Amendment, PIC, ESM, illegal traffic, re-import management, supervision and inspection management and special control area management. The key provisions will be discussed in detail below.

#### **3.3.2.1 The Ban Amendment**

Article 4 establishes general obligations for parties. Parties have the right to prohibit the importation of hazardous wastes and other wastes and a duty not to export hazardous waste to the parties that have banned the importation of such waste.<sup>491</sup>

The Basel Convention also specifies the parties' obligations regarding the

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<sup>488</sup> Ibid Article 4 s 2 (d);

Although there are three requirements for Parties under the Basel Convention, this research will focus on the first requirement: decreasing and controlling the transboundary movement of hazardous wastes under the Convention.

<sup>489</sup> Basel Convention (n 23) Article 4 s 2 (a) (b)

<sup>490</sup> Ibid Article 10 s 2 (c) Article 10 s 3

<sup>491</sup> Ibid Article 4 s 1(a) (b)

management and disposal of domestic hazardous waste.<sup>492</sup> Moreover, it is also required that the Parties should cooperate to improve and ensure ESM of hazardous wastes and other wastes<sup>493</sup> and to prevent their illegal transportation.<sup>494</sup> However, from COP1, the Basel Convention requested that industrialised countries prohibit the transboundary movement of hazardous and other wastes to developing countries.<sup>495</sup>

Also, the Parties to the Convention adopted an amendment to the Convention in its COP2 in 1994 and COP3 in 1995 – Decision II/12 and Decision III/1. The Decisions as a proposed amendment of the Convention banned OECD countries from exporting hazardous wastes to non-OECD countries. This is usually called the ‘Ban Amendment’ or the ‘Basel Ban’,<sup>496</sup> which aims to force OECD countries to keep and manage hazardous wastes produced by themselves, strengthen safety practices in handling hazardous wastes and limit the production of hazardous waste.<sup>497</sup> It is a critical measure in protecting developing countries from the dangers of hazardous wastes, which, in many cases, they would be unable to manage in an environmentally sound manner. In theory, it also potentially makes enforcement more accessible, even though obvious constraints like resource capacity remain. Although the Basel Ban was initially non-binding as the amendment to the Convention was not in force until 2019, it has had a significant influence in achieving the goal of the Basel Convention, giving the collaboration of countries.<sup>498</sup> In fact, the EU, which has

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<sup>492</sup> Ibid Article 4 s 2 (d)

<sup>493</sup> Ibid Article 4 s 2(d) (e) (f) (g);  
see also: Zhang (n 460)

<sup>494</sup> Ibid, Article 9.

<sup>495</sup> UNEP Report of the First Meeting of Conference of the Parties to the Basel Convention (1992) UNEP/CHW. 1/24

<sup>496</sup> The decision in this thesis will be referred to as the "Ban Amendment"; however, the literature refers to it as the "Basel Ban," which is no different from the former

<sup>497</sup> UNEP Report of the Second Meeting of Conference of the Parties to the Basel Convention (1994) UNEP/CHW. 2/30

<sup>498</sup> Lina Zhu, ‘论巴塞尔公约及其历次缔约国大会决议的缺陷及对策’[Discuss the Defects and countermeasures of Basel Convention and COPs] (2009) 16 (3) Journal of Changsha Social Work College 38

many waste exporters, has implemented the Basel Ban since February 1993.<sup>499</sup>

### **3.3.2.2 Environmentally Sound Management**

ESM is a critical concept in the Convention but is not defined therein, as its elaboration was left to technical guidelines. Parties must first take the necessary social and economic measures to ensure that domestic production of hazardous and other wastes is reduced as far as possible.<sup>500</sup> Essentially, where waste is generated, everything that follows must be subject to the ESM. Thus, each State Party shall take appropriate measures to ensure the availability of adequate waste disposal facilities to guarantee the ESM of hazardous wastes and other wastes and minimise the need for their transboundary movement.<sup>501</sup> Such measures will also ensure that those involved in the management of hazardous waste and other wastes within their territory take steps to prevent pollution from that waste by managing it in an environmentally sound manner.<sup>502</sup>

Transboundary movement of wastes can only be the last resort of a country when it cannot dispose of the wastes in its territory.<sup>503</sup> There is also the significant duty requiring that hazardous or other wastes exported are managed in an environmentally sound way in the importing state.<sup>504</sup> Technical guidelines on ESM of wastes were to

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<sup>499</sup> Council Regulation (EEC) 259/93 of on 1 February 1993 on the supervision and control of shipments of waste within, into and out of the European Community [1993] OJ L 30

<sup>500</sup> Basel Convention (n 23) Article 4 s 2 (a)

<sup>501</sup> Ibid Article 4 s 2 (b)

<sup>502</sup> Ibid Article 4 s 2 (c)

<sup>503</sup> Ibid Article 4 s 9 (a)

<sup>504</sup> Ibid Article 4 s 8



be produced at first COP2,<sup>505</sup> and they eventually were produced.<sup>506</sup> The Parties are also obligated to cooperate in improving and achieving ESM of hazardous and other wastes.<sup>507</sup>

### 3.3.2.3 Transboundary Movement Permit

Parties have an obligation to only permit the movement and disposal of hazardous waste under the following conditions: 1) the exporting Party lacks technical capacity and necessary equipment or lacks suitable disposal sites required for the wastes to be disposed of in an environmentally sound and efficient manner; 2) when waste is required as a raw material for recycling or recovery in the importing country; and 3) when the requirements for transboundary movement are consistent with other requirements between the Parties in issue, as long as these requirements do not conflict with the target of the Basel Convention.<sup>508</sup> Meanwhile, as explained above, the exporting Parties should ensure that hazardous wastes and other wastes are disposed of in an environmentally sound manner in the importing states.<sup>509</sup>

### 3.3.2.4 Prior Informed Consent and Re-import

The Basel Convention establishes a strict procedure for Parties, non-parties and transit states involved in the transboundary movement of hazardous and other wastes. This procedure is known as PIC, which *'refers to the principle that international*

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<sup>505</sup> Ibid;

The first technical guidelines on Environmentally Sound Management appeared in COP2, Decision II/13. Also, the development of the Basel Convention technical guidelines was discussed in most COPs, such as Decision III/13 in COP3, Decision VI/20, 22, 24 in COP6, Decision VII/13 in COP7, Decision VIII/16, 17 in COP8, Decision IX/15 in COP9, Decision 10/5,6,7,8,9 in COP10 and Decision 11/3,4,5 in COP11.

<sup>506</sup> UNEP, 'Adopted Technical Guidelines'

<<http://www.basel.int/Implementation/TechnicalMatters/DevelopmentofTechnicalGuidelines/TechnicalGuidelines/tabid/8025/Default.aspx>> accessed August 2014

<sup>507</sup> Basel Convention (n 23) Article 10 s 1

<sup>508</sup> Ibid Article 4 s 9 (a) (b) (c), Article 6 s 5 (a) (b) (c)

<sup>509</sup> Ibid Article 4 s 8

See also: Zhang (n 460); Kummer (n) 438 55-60

*shipment of a chemical that is banned or severely restricted in order to protect human health and the environment should not proceed without the agreement, where such agreement exists, or contrary to the decision of, the designated national authority in the importing country.*<sup>510</sup> PIC was referred to in the United Nations General Assembly Resolution 37/137 in 1983 and the principles for international trade in chemicals for the first time.<sup>511</sup> It is based on the idea of national sovereignty. It underlies a country's environmental policy and enables it to analyse the risks and benefits of importing hazardous waste.<sup>512</sup>

The Basel Convention further developed PIC, as it requires that waste producers and exporters be included within the scope of responsibility and stipulates the relevant obligations of third parties involved in the transboundary movement of hazardous wastes and other wastes.<sup>513</sup> The procedure of PIC was addressed in the Basel Convention and is designed to ensure strong respect for national sovereignty.<sup>514</sup> It enables importing states to refuse particular proposed consignments of waste. In addition, the transferred waste must be labelled and transported in accordance with generally accepted international rules and standards of packaging and should conform to the relevant international conventions.<sup>515</sup>

The Basel Convention also prohibits the parties from the exportation of hazardous wastes or other wastes to non-Parties or the importation of the same from non-

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<sup>510</sup> UNEP, 'Code of Ethics on the International Trade in Chemicals', (UNEP Report, 1994) <  
<https://wedocs.unep.org/bitstream/handle/20.500.11822/8344/-Code%20of%20Ethics%20on%20the%20International%20Trade%20in%20Chemicals-19942677.pdf?sequence=2&amp%3BisAllowed=>> accessed August 2014

<sup>511</sup> Chen (n 439)

<sup>512</sup> Zhu (n 498)

See also: David Langlet, *Prior Informed Consent and Hazardous Trade: Regulation Trade in Hazardous Goods at the Intersection of Sovereignty, Free Trade and Environmental Protection* (Kluwer Law International 2009) 31-34

<sup>513</sup> Chen (n 439)

<sup>514</sup> Basel Convention (n 23) Article 6

<sup>515</sup> Ibid Article 4 s 7 (b)

See also: Chen (n 439)

Parties,<sup>516</sup> unless there is a bilateral, multilateral or regional Agreement concerning transboundary movements between Parties and/or Parties and non-Parties.<sup>517</sup> Such an Agreement shall not prejudice the ESM of the hazardous wastes by the Basel Convention. Moreover, the transboundary movement of hazardous wastes under such an agreement shall comply fully with the PIC procedure.<sup>518</sup>

In addition, when a transboundary movement of hazardous wastes and other wastes cannot be completed, and alternative measures for ESM cannot be arranged for the disposal of such wastes, the exporting state shall bring them back into the state of export. The exporting state, transit states, and any other parties shall not oppose, hinder, or prevent their re-importation.<sup>519</sup>

### **3.3.2.5 Illegal Traffic**

According to the Basel Convention, illegal traffic in hazardous or other wastes is criminal.<sup>520</sup> Parties are required to take appropriate legal, administrative, and other enforcement measures and implement them to prevent and punish such criminal conduct.<sup>521</sup> This provision shows the international community's strong disapproval of illegal traffic. However, trafficking in waste is still ongoing. For example, the Probo Koala incident in Cote D'Ivoire has continued to remain at the forefront of COP concerns.<sup>522</sup> Under the Convention, the area south of 60° South latitude was set as a special area where the export and disposal of any hazardous wastes and other

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<sup>516</sup> Basel Convention (n 23) Article 4 s 5

<sup>517</sup> Ibid Article 4 s 5, Article 11

<sup>518</sup> Margurite M. Cusack, 'International Law and The Transboundary Shipment of Hazardous Wastes to The Third World: Will the Basel Convention Make a Difference?' (1990) 5 (2) American University International Law Review 393

<sup>519</sup> Basel Convention (n 23) Article 8

See Junrong Jiang, '论危险废物越境转移的法律控制' [Study on Legal Control of Transboundary Movement of Hazardous Wastes] (Master Dissertation, Chong Qing University 2006)

<sup>520</sup> Basel Convention (n 23) Article 4 s 3

<sup>521</sup> Ibid Article 4 s 4

<sup>522</sup> See Chapter 3, 3.4 below.

Also see: Amnesty International and Greenpeace Netherlands (n 197)

wastes is prohibited.<sup>523</sup> This measure protects Antarctica and is consistent with other international instruments attempting to protect its environment.<sup>524</sup>

### **3.3.2.6 Liability and Compensation and Preventive Measure**

Finally, the Basel Protocol on Liability and Compensation<sup>525</sup> was adopted by the COP5 to the Basel Convention in 1999, although at the time of this writing, it had still not come into force.<sup>526</sup> The Protocol established an international responsibility and compensation mechanism, adopted a clear standard and set a rule of strict liability for damage caused by a party in the process of facilitating the transboundary movement of hazardous waste; in this regard, any participant who violates the provisions of the Protocol by causing damage by direct intent, indirect intent, negligence with undue assumption and/or negligence with carelessness, are made liable.<sup>527</sup>

However, when transboundary movement of hazardous wastes and other wastes is done based on PIC, the exporter or producer shall be subject to strict liability regarding any damage caused by such movement until these wastes are delivered to the disposer. From this point on, liability for the movement of the wastes is transferred to the disposer. If a party, neither exporter/importer nor disposer, deals or handles such wastes at any point in its movement, that Party shall be liable for any damage caused by its conduct.<sup>528</sup>

Moreover, the Protocol not only established a liability and compensation regime but is also seriously concerned with preventive measures. Without the violation of any

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<sup>523</sup> Basel Convention (n 23) Article 4 s 6

<sup>524</sup> Protocol on Environmental Protection to the Antarctic Treaty (adopted 4 October 1991, entered in force 14 January 1998) 2941 UNTS  
see also: Sands (n 171) 632-635

<sup>525</sup> Basel Protocol (n 21)

<sup>526</sup> Zhu (n 498)

<sup>527</sup> Basel Liability Protocol (n 212) Article 4, Article 5

<sup>528</sup> Chen (n 439)

state law, the Protocol requires that parties who have management control of hazardous wastes and other wastes should take all reasonable action to reduce any damage emanating therefrom. If the action taken is deemed reasonable and in accordance with the domestic law of the affected state on prevention measures, the Party shall not be liable to pay compensation as provided for in the Protocol.<sup>529</sup>

### **3.4 Conferences of the Parties**

The Basel Convention provides a framework for the Parties to control the transboundary movement of hazardous wastes generally. As the Basel Convention has developed, the Conferences of Parties (COPs) have made a series of decisions and established mechanisms to improve the implementation of the framework. This is consistent with the development of other environmental treaty regimes, where the COPs often elaborate on the original agreement and, in essence, develop it as a legal system in its own right.<sup>530</sup>

Until 2014, eleven COPs have been convened to review and evaluate the implementation and enforcement of the Basel Convention. It is important to discuss key developments in the COPs to show that the regime has not been static but has developed considerably and that there has been a real focus on efforts to enhance the implementation and protection of developing countries, even though this has not always been successful.

#### **3.4.1 COP1 to COP4**

There were 32 decisions adopted in COP1 in 1992.<sup>531</sup> Decision I/1 sets the COP's

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<sup>529</sup> Zhu (n 498)

<sup>530</sup> Robin R. Churchill and Geir Ulfstein, 'Autonomous Institutional Arrangements in Multilateral Environmental Agreements: A Little Noticed Phenomenon' (2000) 94 (4) *American Journal of International Law* 632

<sup>531</sup> For all decisions and resolutions of the COPs of the Basel Convention, please see: <http://www.basel.int/TheConvention/ConferenceoftheParties/Meetings/COP11/tabid/3256/Default.aspx> accessed August 2014

rules of procedure, which mainly apply to any meeting of COPs under Article 15 of the Basel Convention.<sup>532</sup> Decision I/5 decided to ‘*establish an ad hoc working group of legal and technical experts to develop elements which might be included in a protocol on liability and compensation for damage resulting from transboundary movement and disposal of hazardous wastes and other wastes.*’<sup>533</sup>

In 1994, COP2 adopted 28 decisions. First, an Ad Hoc Working Group was required to complete the draft Protocol on Liability and Compensation.<sup>534</sup> Parties were also to consider establishing a revolving fund to provide temporary support for emergencies.<sup>535</sup> However, the most important decision was that all transboundary movements of hazardous wastes for the purpose of final disposal from OECD states to non-OECD states were to be prohibited immediately, and that all transboundary movements of hazardous wastes from OECD states to non-OECD states for recycling and/or recovery be stopped by 31 December 1997.<sup>536</sup> Moreover, Decision II/13 adopted an outline of technical guidelines for the ESM of hazardous wastes.

COP3 adopted 29 decisions in 1995. As part of the development of Decision II/12 and an important part of the Ban Amendment, Decision III/1 provided that ‘*Parties listed in Annex VII shall prohibit all transboundary movement of hazardous wastes which are destined for operations according to Annex IV A, to states not listed in*

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<sup>532</sup> UNEP Rules Of Procedure (1992) UNEP/CHW. 1/24 BC I/1

<sup>533</sup> UNEP Liability And Compensation (1992) UNEP/CHW. 1/24 BC- I/5

<sup>534</sup> Ibid

<sup>535</sup> Basel Convention (n 23) Article 14

See also: UNRP Emergency Fund (1994) UNEP/CHW. 2/30 BC- II/2

<sup>536</sup> Basel Amendment also mentioned in this chapter at 3.3.2; Section 4 of Decision II/12 also states: ‘*that any non-OECD state, not processing a national hazardous wastes import ban, which allows the import from OECD states of hazardous wastes for recycling or recovery operation up to 31 December 1997, should inform the Secretariat of the Basel Convention that it would allow the import from an OECD state of hazardous wastes for recycling or recovery operations by specifying the categories of hazardous wastes which are acceptable for import, the quantities to be imported, the specific recycling/recovery process to be used, and the final destination/disposal of the residues which are derived from recycling/recovery operation;*’

*Annex VII.*<sup>537</sup> There were also requests to the Secretariat of the Basel Convention to assist Parties in developing national legislation to deal with illegal traffic and capacity-building, including the development of appropriate infrastructure to prevent and penalise illegal traffic in hazardous wastes and other wastes.<sup>538</sup>

Moreover, the contribution of the Basel Convention to the control of transboundary movements of hazardous wastes and their environmentally sound management is well acknowledged. The Secretariat of the Basel Convention provides valuable support and assistance to developing countries and countries with economies in transition; it also required Parties to accelerate the early adoption of the Protocol on Liability and Compensation as well as additional technical guidelines for the ESM of hazardous wastes which will enhance the effectiveness of the Convention, although this call has to date failed to yield significant result since the Protocol is still not in force.<sup>539</sup>

In COP4, Decision IV/12 focused on illegal traffic in hazardous and other wastes and confirmed that illegal traffic could take different forms and be of various magnitudes. It also required the Parties to cooperate with each other and the Secretariat, which could be used as a basis for networking.<sup>540</sup> Another significant part of COP4 was the adoption of several decisions relating to the Ban Amendment and Annex VII of the Basel Convention. Morocco applied to join Annex VII in COP3, and Israel and Slovakia also applied in COP4.<sup>541</sup> The transboundary movement and disposal of hazardous wastes between the states listed in Annex VII is not prohibited by the Ban Amendment because the latter only prohibits hazardous waste movement from Annex VII states to non-Annex VII states but does not control hazardous wastes

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<sup>537</sup> Basel Amendment (n 471)

<sup>538</sup> UNEP Illegal Traffic in Hazardous Wastes and other Wastes (1995) ) UNEP/CHW. 3/34 BC-III/5

<sup>539</sup> UNEP Evaluation of the effectiveness of the Basel Convention (1995), UNEP/CHW. 3/34 BC-III/10

<sup>540</sup> UNEP Illegal Traffic in Hazardous Wastes and Other Wastes (1998) UNEP/CHW. 4/35 BC-IV/12

<sup>541</sup> Zhang (n 460)

between Annex VII states. Once the amendment of Annex VII is adopted, non-Annex VII states would be free to apply to join Annex VII and would have immunity from the Ban Amendment, which could potentially weaken the effectiveness of the Ban by removing some developing states from its protection.<sup>542</sup> As a result, the COPs decided to leave Annex VII unchanged until the amendment contained in Decision III/1 entered into force.<sup>543</sup>

### **3.4.2 COP5 of the Basel Convention**

COP5 in 1999 adopted 36 Decisions. The Basel Declaration on Environmentally Sound Management was adopted at this conference, which provides that Parties should manage hazardous wastes and other wastes in an environmentally sound manner; it reiterated the aim of the Basel Convention and support for sustainable development and recognised the need to secure funding and ensure strategic development aimed at strengthen market mechanisms to promote environmentally sound management of hazardous wastes, among other decisions and resolutions.<sup>544</sup> The first Declaration of the Basel Convention also provides cooperation with industry and other groups, prevention and monitoring of illegal traffic. It requires the international community to strengthen cooperation on the prevention, reduction, recycling, recovery, and disposal of hazardous wastes, etc. Such provisions helped enforcement by providing more clarity about definitions and standards in the Basel Convention.<sup>545</sup> The Basel Protocol on Liability and Compensation was also adopted in COP5, as discussed earlier.<sup>546</sup>

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<sup>542</sup> Jim Puckett, 'The Basel Treaty's Ban on Hazardous Waste Exports: An Unfinished Success Story', (2000) 23 (25) International Environmental Report 984

<sup>543</sup> UNEP Decision Regarding Annex VII (1998) UNEP/CHW. 4/35 BC-IV/8

<sup>544</sup> UNEP Basel Declaration On Environmentally Sound Management (1999) UNEP/CHW. 5/29 BC-V/1

<sup>545</sup> Ibid

<sup>546</sup> To avoid duplication, the Basel Protocol will not be discussed here, please see 3.3.2 in this chapter; See also: Basel Protocol (n 21)



### 3.4.3 COP6 of the Basel Convention

In 2002, 41 decisions were adopted in COP6. One was the Strategic Plan for the Implementation of the Basel Convention (to 2010), which reviewed the Basel Declaration and summarised the experiences of Parties in implementing the ESM of hazardous wastes.<sup>547</sup> In addition, it established a mechanism for promoting implementation and compliance with the obligations set out under the Basel Convention.<sup>548</sup> This mechanism emphasises the special needs of developing states and states undergoing economic transformation and promotes cooperation between all Parties.<sup>549</sup> In addition, the Basel Convention regional centres were established in COP6 for training and technology transfer to further the implementation of the Basel Convention.<sup>550</sup> Such transformation and cooperation provisions under COP6 provide a steer to develop and maintain networks.

### 3.4.4 COP7

The Strategic Plan for the Implementation of the Basel Convention (to 2010) was adopted in COP7 as an extension of the previous plan, the Strategic Plan for the Implementation of the Basel Convention was adopted in COP7, which noted: *‘that a sustainable and adequate financial basis is essential for the implementation of priority actions of the strategic plan.’*<sup>551</sup> The Strategic Plan required that the Parties and the Basel Convention regional centres cooperate to promote its implementation.<sup>552</sup> To strengthen the implementation mechanism, COP7 also

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<sup>547</sup> UNEP Strategic Plan for the Implementation of the Basel Convention (to 2010) (2002) UNEP/CHW. 6/40 BC-VI/1

<sup>548</sup> UNEP Establishment of a Mechanism for Promoting Implementation and Compliance (2002) UNEP/CHW. 6/40 BC-VI/12

<sup>549</sup> Chen (n 428)

<sup>550</sup> Establishment and Functioning of the Basel Convention Regional Centres for Training and Technology Transfer (2002) UNEP/CHW. 6/40 BC-VI/3

<sup>551</sup> UNEP Strategic Plan for the Implementation of the Basel Convention (2004) UNEP/CHW. 7/33 BC-VII/1

<sup>552</sup> Ibid

adopted the Mechanism for Promoting the Implementation and Compliance: Work Programme 2005–2006, which reviewed Decision VI/12 of the COP.<sup>553</sup> Moreover, in Decision VII/40, the COP: '*[Recognised] the need to strengthen and develop the capacities of the various institutions responsible for the control and management of hazardous and other wastes, and the weakness of the financial, institutional, technical and legal capacities of developing countries with regard to the management of hazardous and other wastes.*' This means that Parties are aware of the challenge of developing states in the process of implementing the Basel Convention.<sup>554</sup>

### 3.4.5 COP8

COP8 in 2006 condemned the toxic waste dumping incident in Abidjan and reiterated the potentially terrible impact on human health and the environment of the transboundary movement of hazardous wastes.<sup>555</sup> In the end, a special working committee was set up by the transitional government of Cote D'Ivoire to organise professionals to transfer hazardous waste, work with the UN experts team to test for pollutants, and then produce a feasible plan for their disposal.<sup>556</sup> In 2007, the government of Cote d'Ivoire signed a compensation agreement worth 100 million West African Francs with Trafigura. In 2010, Dutch prosecutors announced a 1 million fine against Trafigura and punishment of imprisonment and fine on two employees.<sup>557</sup> COP8 raised new issues regarding electrical and electronic wastes and discussed creating innovative solutions through the Basel Convention for the

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<sup>553</sup> UNEP Mechanism for Promoting Implementation and Compliance: Work Programme 2005–2006 (2004) UNEP/CHW. 7/33 BC-VII/30

<sup>554</sup> Chen (n 428)

<sup>555</sup> Thomas Macmanus, 'Toxic Waste Dumping in Abidjan' (2012)

<<http://www.statecrime.org/testimonyproject/ivorycoast>> accessed September 2014

See also: Amnesty International and Greenpeace Netherlands (n 197)

<sup>556</sup> Ibid

<sup>557</sup> Ibid

environmentally sound management of these wastes.<sup>558</sup> Electrical and electronic wastes constitute a new challenge for the Basel Convention.<sup>559</sup>

### 3.4.6 COP9-COP11

The theme of COP9 was Waste Management for Human Health and Livelihood. In COP9, the Parties proposed a Work Programme for the Committee for Administering the Mechanism for Promoting Implementation and Compliance of the Basel Convention (2009-2010).<sup>560</sup> They also set up an Ad Hoc Joint Working Group on Cooperation and Coordination, which recommended cooperation and coordination at the Basel, Rotterdam, and Stockholm Conventions.<sup>561</sup> Implementing this approach has resulted in a more coherent international governance framework for hazardous substances and wastes.<sup>562</sup>

'Prevention, Minimization and Recovery of Wastes' was the theme of COP10 in 2010. COP10 examined and adopted a new strategic framework, regional and coordinating centres, technical guidelines and a total of 26 decisions to develop the

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<sup>558</sup> UNEP Creating Innovative Solutions through the Basel Convention for the Environmentally Sound Management of Electrical and Electronic Wastes (2006) UNEP/CHW. 8/16 BC-VIII/2

<sup>559</sup> Zhu (n 498)

<sup>560</sup> UNEP Work programme for the Committee for Administering the Mechanism for Promoting Implementation and Compliance of the Basel Convention for the Period 2009–2011 (2008) UNEP/CHW. 9/39 BC-IX/2

<sup>561</sup> UNEP Cooperation and Coordination among the Basel, Rotterdam and Stockholm Conventions (2008) UNEP/CHW. 9/39 BC-IX/10

Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (adopted 10 September 1998, entered into force 24 February 2004) 2244 UNTS 337

Stockholm Convention on Persistent Organic Pollutants (adopted 22 May 2001, entered into force 17 May 2004) 2256 UNTS 119

<sup>562</sup> P Roch and Franz Xaver Perrez, 'International Governance: The Strive Towards a Comprehensive, Coherent, Effective and Efficient International Environmental Regime' (2005) 16 (1) Colorado Journal of International Environmental Law and Policy 13

Basel Convention.<sup>563</sup>

Furthermore, COP 11 in 2013 was held in conjunction with COP6 of the Rotterdam Convention, COP6 of the Stockholm Convention and COP2 of simultaneous extraordinary meetings of these three conventions.<sup>564</sup> Parties mainly discussed organisation issues, implementation matters including strategic framework, scientific and technical matters, legal, compliance and governance matters, technical assistance and international cooperation, as well as coordination and partnerships.<sup>565</sup> From COP7 to COP11, the Basel Convention system has become more focused on strengthening the implementation and enforcement of the regime's provisions.<sup>566</sup>

### 3.4.7 COP12 – COP 15

COP12 in 2015 arrived at a decision on ‘International Cooperation and Coordination’<sup>567</sup> emphasising the importance of the regime's cooperation and coordination with other international bodies. It encouraged the organisation of inter-organisation programmes involving institutions responsible for the implementation and enforcement process.<sup>568</sup>

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<sup>563</sup> UNEP Report of the Conference of the Parties to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal on its Tenth Meeting (2011) UNEP/CHW.10/28

<sup>564</sup> UNEP, ‘Eleventh Meeting of the Conference of the Parties to the Basel Convention Summary of the Outcomes’ (2013) <<http://www.basel.int/TheConvention/ConferenceoftheParties/Meetings/COP11/tabid/3256/Default.aspx>> accessed September 2014

<sup>565</sup> UNEP Report of the Conference of the Parties to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal on the work of its Eleventh Meeting (2013) UNEP/CHW. 11/24

<sup>566</sup> UNEP/CHW. 6/40 BC-VII/1, UNEP/CHW. 8/16 BC-VIII/32, UNEP/CHW. 9/39 BC-IX/2, UNEP/CHW. 10/28 BC-10/23, and UNEP/CHW. 11/24 BC-11/8 all reviewed and evaluated the implementation of the Basel Convention.

<sup>567</sup> UNEP International Cooperation and Coordination’ (2015) UNEP/CHW. 12/27 BC-12/17

<sup>568</sup> Ibid

Also, the necessity of cooperation and networks was discussed in COP13.<sup>569</sup> Besides decisions highlighting the need for cooperation and coordination among the Basel, Rotterdam, and Stockholm Conventions,<sup>570</sup> Decision BC-13/13 under COP13 required environmental networks for optimising Regulatory Compliance on Illegal Traffic of hazardous wastes.<sup>571</sup> Although Decision BC-13/13 just used the word 'encourage' members to collaborate for information exchange and undertake capacity-building activities,<sup>572</sup> but the word 'request' is used for the annual network meeting to report the network's activities, enhance enforcement, and prevent and combat illegal traffic.<sup>573</sup>

Furthermore, the most important issue emanating from COP14 is addressing the entry into force of the Ban Amendment.<sup>574</sup> The entry into force of the Ban Amendment was delayed since it was adopted in COP2. However, in COP10 in 2009, it was decided that the Ban Amendment would enter into force with 3/4 of the Parties present and voting at the time.<sup>575</sup> The Basel Ban finally entered into force in December 2019. Significantly, COP regularly emphasised the necessity of cooperation and coordination through Networks and required more networking activities to improve the enforcement of the Basel Convention.

### **3.5 Weaknesses and Deficiencies of the Basel Convention**

The Basel Convention has established international standards and a regulatory

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<sup>569</sup> UNEP Cooperation with the World Customs Organization and its Harmonized System Committee (2017) UNEP/CHW. 13/28 BC-13/7;  
UNEP Environmental Network for Optimising Regulatory Compliance on Illegal Traffic (2017) UNEP/CHW. 13/28 BC-13/13;

UNEP International cooperation and coordination (2017) UNEP/CHW. 13/28 BC-13/16

<sup>570</sup> UNEP Enhancing Cooperation and Coordination among the Basel, Rotterdam, and Stockholm Conventions (2017) UNEP/CHW. 13/28 BC-13/18

<sup>571</sup> Ibid

<sup>572</sup> Ibid

<sup>573</sup> Ibid

<sup>574</sup> UNEP Addressing the entry into force of the Ban Amendment (2019) UNEP/CHW. 14/28 BC-14/2

<sup>575</sup> UNEP (n 563)

mechanism to control the transboundary movement of hazardous waste and manage it in an environmentally sound manner. In this regard, it has influenced the improvement of domestic legislation.<sup>576</sup> Throwing more light, the former Executive Director of UNEP, Mostafa Kamal Tolba,<sup>577</sup> pointed out that the roles of the Basel Convention are to end the illegal dumping of hazardous wastes everywhere, reduce international trade of hazardous wastes, make the transboundary movement of hazardous wastes more open and transparent, keep it under strict control, and ensure that the transportation of hazardous wastes becomes very expensive to encourage the international community especially industrial community to seek more effective ways to reduce, recycle and recover hazardous wastes in production processes in order to protect the environment and natural resources.<sup>578</sup> However, this is not to say that the Basel Convention has provided a perfect solution to the transboundary movement of hazardous wastes, as more relevant issues have continuously been raised since the entry into force of the regime.<sup>579</sup>

### **3.5.1 Important Definitions, Concepts and Standards are Not Clear**

Firstly, the definition of hazardous waste is fraught with ambiguity. While the meaning of hazardous wastes is not explicitly defined under the Basel Convention, the term can be understood with reference to the production process of the wastes and its harm to the environment based on the list in Annex I and II of the Convention. Also, Parties can define hazardous wastes in accordance with their domestic legislation. However, there is no comprehensive and clear definition of

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<sup>576</sup> Zhang (n 460)

<sup>577</sup> Mostafa Kamal Tolba was nominated as the Deputy Executive Director of the newly established UN Environment Programme (UNEP). Within two years, he became the Executive Director, a post he held until retiring in 1992.

<sup>578</sup> Yaofang Li, ‘污染转移和相关国际立法’ [Pollution Transfer and Relevant International Legislation] (2000) 2 International Environment 224

<sup>579</sup> Sands (n. 171) 620-623, 626-627

hazardous wastes in the Basel Convention,<sup>580</sup> and no minimum standards to classify waste as hazardous or non-hazardous. Moreover, different domestic definitions of hazardous wastes have led to different disposal approaches, which are adverse to unified control and implementation of the Basel Convention.<sup>581</sup>

Secondly, the requirements for environmentally sound management of hazardous wastes are vague. ESM means *'taking all practicable steps to ensure that hazardous wastes or other wastes are managed in a manner which will protect human health and the environment against the adverse effects which may result from such wastes.'*<sup>582</sup> The Basel Convention did not clarify specifically what environmentally sound management entails. Thus, Parties could have different explanations of this provision, which could negatively impact the implementation of the Basel Convention. Nonetheless, parties at COPs have continued discussions on the importance of the idea of environmentally sound management of hazardous wastes.<sup>583</sup>

Thirdly, some important standards need to be more specific. One of the conditions for the exportation of hazardous wastes is that *'Parties shall take the appropriate measures to ensure ... only be allowed if: The State of export does not have the technical capacity and the necessary facilities, capacity or suitable disposal sites in order to dispose of the wastes in question in an environmentally sound and efficient manner.'*<sup>584</sup> However, there are no uniform standards for 'appropriate measures',

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<sup>580</sup> Xiaodong Dou, '国家在危险废物越境转移方面的传统责任的挑战' [The Challenge to Traditional Responsibility of States on Transboundary Movement of Hazardous Wastes] (2004) 1 Modern Law 127

<sup>581</sup> Chen (n 439)

<sup>582</sup> Basel Convention (n 23) Article 2 s 8

<sup>583</sup> Zhu (n 498);

Each COP discusses the ESM issue, for example UNEP/CHW. 8/16 BC-VIII/17; UNEP/CHW. 9/39 BC-IX/6; UNEP/CHW. 10/28 BC-10/6, UNEP/CHW. 10/28 BC-10/7. Since E-waste has become a new challenge for the Basel Convention, the COPs seek better approaches to controlling e-waste under ESM, such as the UNEP/CHW. 11/24 BC-11/3 and UNEP/CHW. 11/24 BC-11/5.

<sup>584</sup> Basel Convention (n 23) Article 4 s 9 (a)

'technical capacity', and 'necessary facilities', which makes implementation and enforcement difficult. For example, because of the high technical and environmental standards of developed states, the technical capacity and skills required for the disposal of hazardous wastes are different between developed states and developing states. In addition, because there is no internationally accepted scientific standard, disposal sites might not be appropriate for the disposal of hazardous wastes, and it may be difficult even for a well-intentioned exporter to ascertain this.<sup>585</sup>

### 3.5.2 Some Provisions of the Basel Convention are in Conflict

The most potentially conflicting provisions in the Basel Convention are Article 4 and Article 11. Article 4 requires Parties to prohibit the import and export of hazardous wastes to non-Parties, but Article 11 provides that *'parties may enter into bilateral, multilateral, or regional agreements or arrangements regarding transboundary movement of hazardous wastes or other wastes with Parties or non-Parties provided that such agreements or arrangements do not derogate from the environmentally sound management of hazardous wastes and other wastes as required by this Convention.'*<sup>586</sup> This conflict was considered a serious failing of the Basel Convention, although Article 11 is subject to the Vienna Convention on the Law of Treaties.<sup>587</sup>

The provision of Article 11, when applied, enables Parties to import and export hazardous wastes to any state, and there is no uniform definition and standard of

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<sup>585</sup> Chen (n 439)

<sup>586</sup> Basel Convention (n 23) Articles 4 & 11, Article 11 on transboundary movement permit; see also Chapter 3, 3.3

<sup>587</sup> Vienna Convention on the Law of Treaties (adopted 23 May 1969, entered into force 27 January 1980) 1155 UNTS 331;

It provided that *'The present Convention applies to any treaty which is the constituent instrument of an international organisation and to any treaty adopted within an international organisation without prejudice to any relevant rules of the organisation'*.

See also: Winfried Lang, Hanspeter Neuhold and Karl Zemanek, *Environmental Protection and International Law* (Graham & Trotman 1991)155



environmentally sound management of the said wastes. In this case, it is not easy to judge whether or not the Parties are in compliance with the Convention.<sup>588</sup> On a positive note, however, even though some developing states and NGOs believe the provision of Article 11 is a flaw of the Basel Convention, this provision allows Parties to adopt stricter regional conventions/treaties/agreements under the Basel Convention regime, such as the Bamako Convention.<sup>589</sup>

### **3.5.3 The Provisions on Disposal of Hazardous Wastes are not Comprehensive**

Generally, there are three ways of transboundary movement of hazardous waste, which are: (1) disposal or dumping hazardous wastes and other wastes in other states; (2) exporting products which are prohibited or restricted from sale/use in domestic states; and (3) transfer of manufacturing along with the pollution which results from it. The Basel Convention only provides control over the hazardous wastes and other wastes being transferred to other states directly. However, the Basel Convention does not cover the transfer of manufacturing pollution by investment and the transfer of restricted or prohibited products in domestic states by trade.

Under the Convention, export states can transfer hazardous wastes and other wastes justifiably by legitimate investment,<sup>590</sup> which might result in environmental disasters such as the Bhopal incident.<sup>591</sup> However, it would have been controversial to attempt to include that form of transboundary movement of wastes in the Basel Convention, and probably politically impracticable to do so. This issue is beyond the scope of this thesis.

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<sup>588</sup> Kummer (n 438) 81

<sup>589</sup> Christoph Hilz, *The International Toxic Wastes Trade* (Van Nostrand Reinhold 1992) 145

See also 3.2.2 (2) in this chapter regarding the stricter provisions of the Bamako Convention than those of the Basel Convention.

<sup>590</sup> Zhu (n 498)

<sup>591</sup> Edward Broughtan, 'The Bhopal Disaster and its Aftermath: A Review' (2005) 6 *Environmental Health* 4

### 3.5.4 Enforcement is Difficult

Firstly, the problem of PIC for import, export, and transit states is that they usually do not have sufficient resources, time, and expertise to evaluate whether the transboundary movement of hazardous wastes is acceptable. They also commonly lack management capability regarding notification and consent and may not have sufficient information. The successful adoption of the PIC system needs to rely on advanced national environmental management facilities and provisions; thus, requiring developing countries, especially, to effectively implement the PIC mechanism is quite difficult.<sup>592</sup> Equally, it is also practically difficult for developed state exporters to assess facilities and management capabilities in developing states. In addition, the Basel Convention does not provide financial and technological support to enable import states with financial and technological challenges to manage hazardous wastes in an environmentally sound manner. However, Articles 10 and 14 of the Convention require the Parties to cooperate and establish regional centres to support the improvement of environmentally sound management of hazardous wastes.<sup>593</sup>

Secondly, Article 10 requires that Parties *'make available information, whether on a bilateral or multilateral basis ... harmonisation of technical standards and practices for the adequate management ... development and implementation of new environmentally sound low-waste technologies ... Cooperate actively, in the transfer of technology and management systems ... Taking into account the needs of developing countries, cooperation between Parties and the competent international organisations is encouraged to promote ...'*<sup>594</sup>. It can be seen that the Basel Convention requires cooperation between the Parties through organising regular discussions and annual meetings of network activities. This appears to be the basis of

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<sup>592</sup> Zhang (n 460) 99-100; Kummer (n 438) 81

<sup>593</sup> Chen (n 439)

<sup>594</sup> Basel Convention (n 23) Article 10

cooperation through networks.<sup>595</sup>

Thirdly, the Basel Convention requires that Parties ‘Ensure that the generation of hazardous wastes and other wastes within it is reduced to a minimum, taking into account social, technological and economic aspects.’<sup>596</sup> The implication is that Parties are only obliged to reduce the generation of hazardous wastes and other wastes up to their capability and interest and not beyond that. They are not obligated to innovate and develop new regulations to go beyond their current capability. Therefore, they can export if they reach the limit of their reduction capability. Moreover, the Basel Convention does not require specific measures to ensure that the Parties implement these obligations, which may provide an excuse for not reducing the generation of hazardous and other wastes.<sup>597</sup>

Lastly, the Basel Convention and the Basel Protocol have failed to establish an International Fund. An International Fund could supplement compensation for victims of incidents arising from the transboundary movement of hazardous wastes when the liable parties cannot be found or afford to pay. Moreover, an International Fund could require that waste generators be held liable under the principle of ‘polluter pay’. Finally, an international fund could help provide quick compensation in cases of emergency and during the clean-up phase.<sup>598</sup> Basel Convention only provides that ‘The Parties shall consider the establishment of a revolving fund to assist on an interim basis in case of emergency situation’<sup>599</sup>. However, it did not mention any specific measure or plan to establish the Fund.<sup>600</sup>

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<sup>595</sup> Chen (n 439)

<sup>596</sup> Basel Convention (n 23) Article 4 s 2(a)

<sup>597</sup> C Russell and H Shearer, ‘Comparative Analysis of the Basel and Bamako Conventions on Hazardous Waste’ (1993) 23 (1) Lewis & Clark Law School, Environmental Law 141

<sup>598</sup> BAN and West Coast Environment Law Associate, ‘Comments on the Draft Liability Protocol’ (Report to Ad Hoc Working Group of Legal and Technical Expert 19 April 1999) <<http://old.ban.org/subsidiary/liability.html>> accessed February 2023

<sup>599</sup> Basel Convention (n 23) Article 14 s 2

<sup>600</sup> Chen (n 439)

### 3.5.5 Limitation of Ban Amendment

Although the good news under the Basel Convention regime was that the Ban Amendment finally entered into force in 2019, it still has limitations.<sup>601</sup>

First of all, the Ban Amendment does not ban waste trade 1) between OECD, the EU and Liechtenstein countries, which are under the Annex VII Parties; 2) between non-Annex VII Parties, which are mostly developing and transition countries; and 3) from non-Annex VII Parties to Annex VII Parties.<sup>602</sup> In addition, non-hazardous wastes, including steel, glass, paper, and even wastes in Annex II of the Basel Convention (wastes for special consideration), were not included in the ban. Such wastes currently also include household waste and plastic waste, which are difficult to recycle.<sup>603</sup>

The last limitation is that not all countries ratify the Ban Amendment, so there is a (geographical) gap under the regulation. Technically, the Ban Amendment is not binding on those who ratify it, but all parties to the Basel Convention should respect the import prohibitions of other parties.<sup>604</sup> Therefore, countries under Annex VII cannot export hazardous wastes to non-Annex VII countries that ratified the Ban Amendment, whether or not the country in Annex VII ratified the Ban Amendment, because of the national import prohibition. Similarly, countries under non-Annex VII cannot import hazardous wastes from Annex VII countries that ratified the Ban Amendment, no matter whether the non-Annex VII countries ratified the Ban Amendment or not, because of the national export prohibition. The problem is that the Ban Amendment will not apply if neither exporting parties nor importing parties

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<sup>601</sup> Please see the “Ban Amendment” and “COP1 to COP4” discussion in this chapter.

<sup>602</sup> BAN and IPEN, ‘The Entry into Force of the Basel Ban Amendment: A Guide to Implications and Next Steps’ (Ban and IPEN Report, January 2020) <[https://ipen.org/sites/default/files/documents/ban-basel-fact-sheet-v2\\_1-en.pdf](https://ipen.org/sites/default/files/documents/ban-basel-fact-sheet-v2_1-en.pdf)> accessed February 2022

<sup>603</sup> Ibid

<sup>604</sup> Basel Convention (n 23) Article 4 s 1(b)

ratify it sufficiently.<sup>605</sup> As of 25 November 2020, only 99 parties have deposited their instruments of consent to be bound by the regime.<sup>606</sup> However, the Basel Convention's COP should call on the other parties to ratify the Ban Amendment.

### **3.5.6 Drawbacks of the Basel Protocol on Liability and Compensation**

Similar to some other environmental conventions, the provision for liability and compensation in the Basel Convention is too general and 'soft' in its approach. For instance, it simply states that *'The Parties shall cooperate with a view to adopting, as soon as practicable, a protocol setting out appropriate rules and procedures in the field of liability and compensation for damage'*<sup>607</sup>. The framework established by the Basel Convention is imperfect if victims cannot receive adequate compensation.<sup>608</sup> However, the Parties adopted the Basel Protocol in COP5, an essential part of the Basel Convention that strengthens the legal responsibility of those responsible for moving hazardous wastes and guarantees effective victim compensation in the event of harm.<sup>609</sup> The Basel Protocol on Liability and Compensation will be discussed in detail in the next chapter.

## **3.6 Conclusion**

To conclude, this chapter first analysed the main content of the Basel Convention, such as ESM and PIC. Then, it introduced the Conference of Parties to emphasise the importance of enforcement in the COP discussions.

The weaknesses in the Basel Convention highlighted in this chapter impact the effective implementation and enforcement of its provisions at the national level.

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<sup>605</sup> BAN & IPEN (n 602)

<sup>606</sup> UNEP Addressing the entry into force of the Ban Amendment (2022) UNEP/CHW. 15/31 BC-15/4

<sup>607</sup> Basel Convention (n 23) Article 12

<sup>608</sup> M Tsimplis, 'Liability and Compensation in the International Transport of Hazardous Wastes by Sea: The 1999 Protocol to the Basel Convention' (2001) 16 (2) International Journal of Marine and Coastal Law 296

<sup>609</sup> Chen (n 439)

Significant capacity and resource issues remain in developing countries, which would appear to justify the Ban Amendment and the approach of the Bamako Convention, albeit the latter does permit intra-African trade. However, even when there is a ban, there needs to be sufficient resources to take enforcement action in relation to continued illegal trade in the banned substance. To conclude, the Basel Convention provides a reasonable legal framework to manage the transboundary movement of hazardous wastes. Moreover, the provisions of the Basel Convention are constantly improving, with the COPs driving forward the Ban Amendment, a strong focus on implementation and enforcement, and finally establishing the liability and compensation Protocol to enable the achievement of its goal. While the Basel Convention is becoming more efficient in the control of transboundary movement of hazardous wastes, lack of capacity at the national level can hamper its implementation as well as subsequent enforcement efforts. The COPs of the Basel Convention also provide evidence of discussions about the importance of cooperation, collaboration and, in some cases, explicitly networks. This is important for the overall argument of the thesis that networks can play a key role in enhancing the enforcement of the Basel Convention.

This chapter leads to the following discussion of the Basel Convention enforcement in the next chapter and further discussion of how key themes affect the Basel Convention enforcement.

## **Chapter 4 International Environmental Law Enforcement and the Basel Convention**

### **4.1 Introduction and Outline**

As part of international environmental law, international enforcement of the Basel Convention follows general international law; however, enforcement of the Basel Convention has its own characteristics. Chapter 2 in this thesis discussed a general understanding of enforcement, and Chapter 3 analysed the Basel Convention. This chapter considers how the enforcement of the Basel Convention at the international level can contribute to enhancing its enforcement at the national level. In this chapter, the enforcement mechanism and approach will be discussed after the analysis of the Basel Convention, for example, the non-compliance and dispute settlement. Importantly, attention is given to analysing the national enforcement of the Basel Convention.

Lastly, the chapter introduces common approaches of national enforcement towards complying with the obligations of the Basel Convention and how networks can further comply with the Convention's obligations, for example, those relating to illegal trade. These latter issues, such as national enforcement approaches and the role of networks, are more fully developed in subsequent chapters.

This chapter will identify the weaknesses of enforcement of the Basel Convention, and subsequent chapters will try to identify ways of overcoming these weaknesses.

### **4.2 Basel Convention: International Enforcement Mechanism**

The previous chapter's discussion and analysis of the Basel Convention and its COPs demonstrated that its enforcement faces challenges like other international environmental law regimes. However, enforcement of the Basel Convention not only shares common features with international environmental law generally but also has

its own characteristics.

#### **4.2.1 Introduction of the Basel Convention Enforcement Mechanism**

The ‘peaceful means’ principle is the central plank of the Basel Convention enforcement system.<sup>610</sup> Parties to the Basel Convention requested that enforcement efforts involve collaboration with the Basel Convention Regional Centres and other international environmental treaties – the Rotterdam and Stockholm Conventions. The Basel Convention enforcement system also involves other environmental law regimes, such as the International Convention for the Prevention of Pollution from Shipment (MARPOL), to prevent illegal traffic of hazardous wastes to developing countries and economies in transition.<sup>611</sup> In addition, the Basel Convention enforcement also involves the analysis of the Convention, making recommendations and providing training seminars for national enforcement agencies such as environmental authorities.<sup>612</sup>

The Basel Convention, adopted in 1989 and entered into force in 1992, contains detailed rules to control the transboundary movement of hazardous wastes by employing mechanisms like Prior Informed Consent (PIC), the Basel Ban, the criminalisation of illegal traffic, etc. In addition, a civil liability protocol has been developed under the Basel Convention.<sup>613</sup> For the purpose of improving the enforcement of the Basel Convention, The Basel Protocol on Liability and Compensation (hereafter 'Basel Protocol') was adopted at COP5 in 1999. The

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<sup>610</sup> Basel Convention (n 23) Article 20

<sup>611</sup> International Convention for the Prevention of Pollution by Ships (adopted 2 November 1973) 12 ILM 1319; See also Basel Convention (n 23) Article 1 s 4

While the application of the Basel Convention to ships has been addressed mainly in two areas, ship waste and ship dismantling, wastes from ships are usually dealt with under MARPOL.

<sup>612</sup> ‘Enforcement’,

<<http://www.basel.int/Implementation/TechnicalAssistance/Enforcement/tabid/2555/Default.aspx>> accessed June 2015

<sup>613</sup> Kummer (n 438);

Andrews (n 147)

see also Chapter 1 above.



objective of the Basel Protocol is to establish appropriate rules and procedures for damage liability and compensation caused by the transboundary movement of hazardous wastes and other wastes. Unfortunately, the Basel Protocol has not yet entered into force over 20 years after its adoption.

To improve the enforcement of the rules against the transboundary movement of hazardous wastes, UNEP set up the Regional Enforcement Network for Chemicals Waste (Project REN) as a project to help control illegal transboundary movements of harmful substances and hazardous waste.<sup>614</sup> However, UNEP's role in enforcing international environmental law is quite limited; it only includes regulation-making, information gathering, and monitoring.<sup>615</sup>

The Basel Convention regime lacks mandatory jurisdiction and enforcement authority. The effectiveness of the Basel Convention largely depends on domestic voluntary compliance and national enforcement. In this regard, the role of international organisations and non-state actors has been key in using education, financial assistance, networks, and dispute settlement mechanisms to encourage compliance and enforcement at the national level.<sup>616</sup>

The enforcement of the Basel Convention at the international level mainly includes the non-compliance mechanism, dispute settlement mechanism, and the Basel Protocol.<sup>617</sup>

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<sup>614</sup> The project 'Multilateral Environmental Agreements Regional Enforcement Network (MEA-REN)' was initiated in 2007 to cover substances and goods that are controlled by all four MEAs concerning harmful substances and hazardous wastes, including the Montreal Protocol, the Basel Convention, the Rotterdam Convention and the Stockholm Convention. The Project was established in 2012; Regional Enforcement Network for Chemicals and Waste (Project REN) <<http://www.basel.int/Implementation/CountryLedInitiative/History/Combatingillegaltrafficismoreeffectively/EnforcementNetworks/ProjectREN/tabid/2921/Default.aspx>> accessed June 2016

<sup>615</sup> Samaan (n 291)

<sup>616</sup> Ibid

<sup>617</sup> UNEP (n 548);  
Basel Convention (n 23) Article 20;  
Basel Protocol (n 21)

#### 4.2.2 Non-compliance Mechanism of the Basel Convention

The non-compliance regime of the Basel Convention was based on the Montreal Protocol's non-compliance regime. The Committee for Administering the Mechanism for Promoting Implementation and Compliance (The Committee) was established by the Conference of the Parties decision.<sup>618</sup> The Committee, in accordance with the Conference of the Parties' mandate, aims to improve the implementation of and compliance with the obligations in the Convention.<sup>619</sup> The Committee has two specific mandates: general review and special submission. Under the general review mandate, the Committee must review the general issue of compliance and implementation under the Basel Convention. Under the specific submission mandate, the Committee must consider a submission made to it to determine the facts and root causes of the matter and assist in its resolution.<sup>620</sup> The Conference of the Parties is still the supreme body of the Convention. However, it has delegated the day-to-day functions of dealing with implementation and non-compliance to the Committee.<sup>621</sup>

Similar to the system under the Kyoto Protocol, the mechanism for implementation and compliance under the Basel Convention stipulates three conditions for submissions to trigger the implementation and compliance mechanism procedure.<sup>622</sup> Self-trigger is required if a party is not able to fully implement or comply with its obligations after the best efforts. It is more difficult for another party to trigger the procedure; if a party discovers the non-compliance activities of another party, that party shall notify the party in breach of its non-compliance. Both parties must negotiate to find a solution. Submissions to trigger the implementation and compliance mechanism will be accepted if negotiations fail. The Secretariat can

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<sup>618</sup> The Committee was established in 2002 under Article 12 s 5(e) of the Basel Convention

<sup>619</sup> UNEP (n 548)

<sup>620</sup> Ibid

<sup>621</sup> Basel Convention (n 23)

<sup>622</sup> Francesca (n 352)

trigger this procedure related to the reporting and information obligations under Article 13 of the Basel Convention.<sup>623</sup> So far, the Secretariat is responsible for virtually all the non-compliance cases<sup>624</sup>. Moreover, the Committee will not proceed with a submission if it is either ‘*de minimis or manifestly ill-founded*’.<sup>625</sup>

In situations of non-compliance, some of the measures provided by the Committee include consultation, assistance in drafting compliance action plans for non-compliant parties, monitoring the implementation of the requirements, and assisting developing countries and countries with economies in transition to access financial and technical support to strengthen their capacity to comply with the Convention.<sup>626</sup> However, the non-compliance procedure is ‘*non-confrontation[al], transparent, cost-effective and preventive in nature, simple, flexible, non-binding and oriented in the direction of helping parties to implement the provisions of Basel Convention*’.<sup>627</sup>

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<sup>623</sup> UNEP (n 548) Article 9 stated as:

*'Submissions may be made to the Committee by: (a) A Party that concludes that, despite its best efforts, it is or will be unable to fully implement or comply with its obligations under the Convention; (b) A Party that has concerns or is affected by a failure to comply with and/or implement the Convention's obligations by another Party with whom it is directly involved under the Convention. A Party intending to make a submission under this subparagraph shall inform the Party whose compliance is in question, and both Parties should then try to resolve the matter through consultations; (c) The Secretariat, if, while acting pursuant to its functions under articles 13 and 16, it becomes aware of possible difficulties of any Party in complying with its reporting obligations under article 13, paragraph 3 of the Convention, provided that the matter has not been resolved within three months by consultation with the Party concerned.'*

<sup>624</sup> A number of reports have been issued by the Implementation and Compliance Committee. All these reports documented the submission and progress of non-compliance procedures triggered. See ‘Reports’

<<http://www.basel.int/TheConvention/ImplementationComplianceCommittee/Reports/tabid/2289/Default.aspx>> accessed June 2016

<sup>625</sup> UNEP (n 548);

Basel Convention (n 23) Article 18

<sup>626</sup> ‘The Basel Convention Implementation and Compliance Committee’

<<http://www.basel.int/TheConvention/ImplementationComplianceCommittee/Overview/tabid/2868/Default.aspx>> accessed June 2016

<sup>627</sup> UNEP Report of the Conference of the Parties to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal’, Working Documents of the sixth meeting of the COPs to the Basel Convention (2002) UNEP/BC/CHW. 6/40;

It is clear that, as it relates to the non-compliance mechanism, the Committee has no enforcement power in contrast to the Council of the Sea Bed Authority under UNCLOS or the European Commission in the EU.<sup>628</sup>

There are other contributions of the Basel Convention's COP to promoting the compliance of parties, including establishing the Basel Convention Regional Centres for Training and Technology Transfer through Decision VI/4,<sup>629</sup> and the Mechanism for Promoting Implementation and Compliance: Terms of Reference.<sup>630</sup>

Non-compliance mechanisms are based on international cooperation; they apply a friendly negotiation approach to assist and promote the parties complying with the obligation of the relevant Convention.<sup>631</sup> The earliest non-compliance procedure was adopted in the Fourth Conference of the Parties of the Ozone Montreal Protocol, which is used for reference and was adopted in many international environmental treaties.<sup>632</sup> The first non-compliance case was typical under the Ozone Montreal Protocol non-compliance regime.<sup>633</sup> The Russian Federation, Belarus, Bulgaria, Ukraine, and Poland struggled to comply with the Ozone Montreal Protocol. They found it challenging to cease the production and consumption of ozone layer-depleting substances before January 1996. Consequently, they requested a five-year grace period to comply, citing their status as being in economic transition.<sup>634</sup>

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Basel Convention (n 23) Article 3

UNEP (n 548)

<sup>628</sup> Ifeoma M Onyerikam, 'Achieving Compliance with Basel Convention on Transboundary Movement of Hazardous Wastes' (April 2007) <<http://ssrn.com/abstract=984067>> accessed July 2016

<sup>629</sup> UNEP The Establishment and Functioning of the Basel Convention Regional Centres for Training and Technology Transfer (2002) UNEP/CHW. 6/40 BC-VI/3

<sup>630</sup> UNEP (n 548)

<sup>631</sup> Kal Raustiala, 'Compliance & Effectiveness in International Regulation Cooperation' (2000) 32 (3) Case Western Reserve Journal of International Law 387

<sup>632</sup> Birnie (n168) 237-239

<sup>633</sup> Jacob Werksman, 'Compliance and Transition: Russia's Non-compliance Tests on Ozone Regime' (1995) 56 Heidelberg Journal of International Law 750

<sup>634</sup> UNEP Report of the Eleventh Meeting of the Implementation Committee Under the Non-Compliance Procedure for the Montreal Protocol (1999) UNEP/OzL. Pro./ImpComp/11/10, Annex II

With the dissolution of the Soviet Union,<sup>635</sup> those five countries faced economic and social difficulties during their economic transition; however, one of them, the Russian Federation, was one of the biggest producers and consumers in the world.<sup>636</sup> Thus, the Implementation Committee made its decision at COP7 in 1995 after consulting with the Russian Federation, the World Bank, and the GEF on the feasibility of eliminating ozone layer-depleting substances.<sup>637</sup> Based on this decision, the Russian Federation promised to phase out the ozone layer-depleting substances and provided the measures to ensure compliance.<sup>638</sup> On the one hand, the Decision restricted the export of ozone-depleting substances in trade between the Russian Federation and other Commonwealth of Independent States. On the other hand, there is the GEF and the World Bank to provide conditional financial assistance.<sup>639</sup>

However, only developing countries were entitled to assistance from the Montreal Protocol multilateral fund<sup>640</sup>, but Russia was not considered a developing country.<sup>641</sup> As a result, Russia was only likely to receive financial assistance from the GEF and the World Bank. In the meantime, the Conference of the Parties and the Implementation Committee monitored the emissions of controlled substances, and Russia was required to submit annual progress reports on the withdrawal of ozone-depleting substances.<sup>642</sup> In addition, the Conference of the Parties threatened to

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<sup>635</sup> US Department of State, 'Dissolution of the USSR and the Establishment of Independent Republics' (1991) <<https://2001-2009.state.gov/r/pa/ho/time/pcw/108229.htm>> accessed December 2021

<sup>636</sup> O Yoshida, 'Soft Enforcement of Treaties: The Montreal Protocol's Non-compliance Procedure and the Functions of Internal International Institutions' (1999) 10 Colorado Journal of International Environmental Law and Policy 95

<sup>637</sup> Ibid

<sup>638</sup> UNEP Report of the Seventh Meeting to the Montreal Protocol on Substances That Deplete the Ozone Layer (1995) UN Doc. UNEP/OzL.Pro.7/12

<sup>639</sup> 'Report of the Parties to the Montreal Protocol on the Work of Their Seventh Meeting' (1995) UN. Doc. UNEP/OzL.Pro.7/12.

<sup>640</sup> Montreal Protocol (n 285) Article 5

See also: 1990 London Amendment (n 346)

<sup>641</sup> Zhu (n 270)

<sup>642</sup> Ibid

suspend the rights and privileges of Russia under the Ozone Montreal Protocol if it did not fulfil its promise.<sup>643</sup> As a result of this case, in 2000, the Russian Federation returned to compliance with its obligation.<sup>644</sup>

There are a number of non-compliance cases under the Basel Convention. These are mainly submissions against parties, one of which is Afghanistan, which is facing difficulties complying with the obligation under Article 5 (establishment of a competent authority) of the Basel Convention.<sup>645</sup> However, some severe cases, such as the Canada - Philippines household waste illegal trade case in 2015, have not resulted in the use of the non-compliance mechanism. In this case, Canada exported 50 containers of household waste to the Philippines, an illegal trade failing to meet the Basel Convention requirements. However, Canada refused to re-import the waste because there was no domestic law to compel the shipper to return to Canada. Canada and the Philippines are both parties to the Basel Convention. While the Basel Action Network called upon Canada to trigger the non-compliance procedure, this has not been done.<sup>646</sup>

In summary, akin to the Facilitative Branch of the Kyoto Protocol's Implementation Committee, the Committee of the Basel Convention facilitates compliance among parties by considering submissions on non-compliance from concerned parties, the Secretariat, or other relevant stakeholders, the Committee deliberates on aspects related to non-compliance and provides recommendations to the Conference of the Parties for adoption.<sup>647</sup> Additionally, the Committee may offer advice or make non-

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<sup>643</sup> Werksman (n 633)

<sup>644</sup> Report of the Parties to the Montreal Protocol on the Work of Their Ninth Meeting (2002) UNEP/OzI.Pro.14/9

<sup>645</sup> Committee for Administering the Mechanism for Promoting the Implementation and Compliance of the Basel Convention: selected documents (2013) UNEP/CHW.11/INF/18

<sup>646</sup> Ronn Bautista, 'Philippines Sends Trash Back to Canada after Duterte Escalates Row' (Reuter, 31 May 2019) <<https://www.reuters.com/article/us-philippines-canada-waste-idUSKCN1T10BQ>> accessed February 2021

<sup>647</sup> UNEP (n 548)

binding recommendations to the parties involved on certain issues.<sup>648</sup>

### **4.2.3 Other Dispute Settlement Mechanisms**

The dispute settlement mechanism of the Basel Convention is typically one of peaceful means.<sup>649</sup> On this basis, the measures for dealing with disputes about the transboundary movement of hazardous wastes will substantially involve diplomacy. Importantly, dispute settlement mechanisms may include international measures such as negotiation, mediation, arbitration, and international litigation, as well as national measures such as litigation before national courts, which will be discussed in the next section of this chapter.<sup>650</sup>

#### **4.2.3.1 Peaceful Means: Negotiation and Consultation, Medication, Conciliation and Investigation**

Generally, there are two differences between negotiation and consultation. Negotiation is usually launched after a dispute has occurred, but consultation can proceed before a dispute occurs. Negotiation is between States involved in the dispute, but consultation can involve the participation of other relevant states, organisations, or institutions.<sup>651</sup> In practice, negotiation and consultation are usually the first approaches employed in settling a dispute.<sup>652</sup> The Basel Convention stipulates that if a dispute cannot be settled by negotiation or any other peaceful means, the parties shall submit it to the International Court of Justice or Arbitration if

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<sup>648</sup> Onyerikam (n 628)

<sup>649</sup> Basel Convention (n 23) Article 20 provides that: '*... they shall seek a dispute settlement through negotiation or any other peaceful means of their own choice.*

<sup>650</sup> Onyerikam (n 628)

<sup>651</sup> Mary Ellen O'Connell, *International Dispute Settlement* (Ashgate Publishing 2003) 39-42

<sup>652</sup> *Mavrommatis Palestine concessions case (Greece v United Kingdom)* [1924] PCIJ Series A No 2, [1924] ICJ 236;  
*Chorzow Factory case (Germany v Poland)* [1928] PCIJ Series A No 17, [1928] ICJ 255;  
Both the *Mavrommatis Palestine concessions case* and the *Chorzow Factory case* stated that negotiation should proceed before resorting to judicial action.

the disputing parties agree.<sup>653</sup> If they cannot agree, they are still obliged to seek a settlement through negotiation or other peaceful means.

In international law, there are two approaches to mediation. One involves third parties facilitating negotiations and consultations between the disputing parties without being involved in the processes. Another involves third parties not only assisting the disputing parties in entering into negotiations and consultations but also participating in the processes and putting forward opinions and suggestions.<sup>654</sup> The mediator can be a state, an international organisation, or an international influential individual, whom all disputing parties accept.<sup>655</sup> In the case of conciliation, a third party assumes a more formal role. It usually investigates the details underlying the dispute and processes formal proposals for resolving it.<sup>656</sup> Mediation and conciliation are valuable for international environmental law. They are diplomatic means of resolving disputes and are legally binding.<sup>657</sup> The transboundary movement of hazardous wastes involves exporters, importers, and transit states, and the procedure is complex. A dispute in such a situation might impact other states directly or indirectly. States may use mediation and conciliation to protect their state interests; however, mediation and conciliation may not be applicable because of the time-critical issues involved in the transboundary movement of wastes. The potential environmental impact is immediate, whereas a border dispute or dispute about water resources is much less likely to have an immediate impact.<sup>658</sup>

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<sup>653</sup> Basel Convention (n 23) Article 20 s 2

<sup>654</sup> Alessandra Sgubini, Mara Prieditis and Andrea Marighetto, 'Arbitration, Mediation and Conciliation: Differences and Similarities from an International and Italian Business Perspective' (16 August 2004) <<http://www.mediate.com/articles/sgubinia2.cfm>> accessed March 2017

<sup>655</sup> UN, *United Nations Handbook on the Peaceful Settlement of Disputes between States* (UN Publication 1992) 33

<sup>656</sup> Sands (n171) 170-171

<sup>657</sup> If an agreement is reached following mediation, that would be legally binding. However, mediation is unlike a court process in which a legally binding decision would be imposed on the parties.

<sup>658</sup> Zhu (n 270)



Investigation was first raised as a method of dispute settlement in the Convention for the Pacific Settlement of the International Dispute in 1899.<sup>659</sup> The UN Charter also provided that investigation can be a mechanism for settling international disputes.<sup>660</sup> Six international environmental treaties mention the investigation; however, it is not included in the Basel Convention.<sup>661</sup> The only peaceful means expressly mentioned in the Basel Convention is negotiation. However, consultation, mediation, conciliation, and investigation are generally considered peaceful means for international dispute settlement, which are potentially included in the 'other peaceful means' mentioned in the Basel Convention.<sup>662</sup>

A matter between China and the Netherlands exemplifies this peaceful approach. In 2012, the General Customs of China reported a typical China-Netherlands joint law enforcement case. In 2011, 30 household waste containers from the Netherlands were imported into Zhangjiagang port and reported as 'used newspaper'.<sup>663</sup> Nanjing Customs Anti-smuggling Bureau<sup>664</sup> invited experts from the Chinese Research Academy of Environmental Science to identify such wastes. At the same time,

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There are few mediation and conciliation case sources under the Basel Convention. However, there is another typical environmental case of conciliation. In 1947, India and Pakistan were in dispute over the waste source of the Indus. The president of the World Bank, Eugene Black, was the conciliator working on dispute settlement to facilitate negotiation. The Indus Water Treaty was signed in 1960;

See The Indus Waters Treaty 1960 between the Government of India, the Government of Pakistan and the International Bank for Reconstruction and Development (adopted 19 September 1960) 419 UNTS 125

<sup>659</sup> 1899 Convention for the Pacific Settlement of International Disputes (adopted 29 July 1899) 1 AJIL 103

<sup>660</sup> UN Charter (n 271), Article 34

<sup>661</sup> The six treaties are The Antarctic Treaty (adopted 1 Decembre 1959, entered into force 23 June 1961) 402 UNTS 71;

Convention for the Conservation of Antarctic Marine Living Resources (adopted 20 May 1980, entered into force 7 April 1982) 1329 UNTS 47;

Convention on the Regulation of Antarctic Mineral Resource Activities (1988) Doc. AMR/SCM/88/78, reprinted in 27 ILM 859;

Protocol on Environmental Protection to the Antarctic Treaty (n 524);

Convention for the Protection of the Marine Environment of the North-East (n 216);

Convention on Law of Non-Navigational Uses of International Watercourses (adopted 21 May 1997, entered into force 17 August 2014) 2999 UNTS 77

<sup>662</sup> Basel Convention (n 23) Article 20 s 1

<sup>663</sup> Yin Cao, 'Smuggled Solid Waste Returned to Rotterdam' (China Daily, 2 June 2012)

<[https://usa.chinadaily.com.cn/china/2012-06/02/content\\_15454325.htm](https://usa.chinadaily.com.cn/china/2012-06/02/content_15454325.htm)> accessed May 2021

<sup>664</sup> Nanjing Customs Anti-smuggling Bureau is the superior agency of Zhangjiagang Customs Anti-smuggling Bureau.

Nanjing Customs contacted the Dutch Customs to organise joint enforcement. Finally, these wastes were re-imported back to the Netherlands. However, that was not the end of the national enforcement, as the importing company was fined 800,000 RMB, and the responsible person was fined 30,000 RMB and was sentenced to six years and six months in prison for smuggling waste.<sup>665</sup> The prison sentence, in particular, would appear to be a significant deterrent.<sup>666</sup> While this case is arguably an example of joint enforcement, it had aspects of an international dispute settlement involving peaceful negotiation between the enforcement authorities of both countries.

#### 4.2.3.2 Arbitration and Judicial Proceedings

The Basel Convention stipulates arbitration and the International Court of Justice separately as legal means of dispute settlement.<sup>667</sup> There are two main differences between arbitration and the International Court of Justice. The parties choose the judge in arbitration, and the arbitration proceedings can be completely confidential. However, in judicial proceedings, the trial is heard in public, and the judgment is read out in open court.<sup>668</sup>

International arbitration has been described as having *'for its object the settlement of disputes between States by Judges of their own choice and on the basis of respect for law. Recourse to arbitration implies an engagement to submit in good faith to the Award.'*<sup>669</sup> International environmental treaties provide for three types of environmental arbitration. First, some treaties require that the disputing states submit

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<sup>665</sup> Huajun Song, YaoRong Zhou and ChangBo Ji, '堵住洋垃圾走私之门-江苏走私近 2000 吨废物案审判纪实' [Transcript of the Trial of Smuggling Nearly 2,000 Tons of Waste in Jiangsu] (People's Court Newspaper, 13 May 2013) <[http://rmfyb.chinacourt.org/paper/html/2013-05/13/content\\_63618.htm?div=0](http://rmfyb.chinacourt.org/paper/html/2013-05/13/content_63618.htm?div=0)> accessed June 2016

<sup>666</sup> On the importance of deterrence as a key theme in enforcement;

N Parpworth, 'Sentencing for Environmental Offences: A New Dawn?' (2013) 9 JPL 1093

<sup>667</sup> Basel Convention (n 23) Article 20 s 2, s 3

<sup>668</sup> Srecko Vidmar, 'Compulsory Inter-state Arbitration of Territorial Disputes' (2002) 31 (1) Denver Journal of International Law and Policy 87

<sup>669</sup> See (n 659) Article 37

to arbitration if they cannot settle the dispute by peaceful means. The requirements of the arbitration proceedings are provided in the treaties. Here, an arbitration agreement is not necessary for dispute parties.<sup>670</sup> Second, there are other treaties that require disputing parties to enter into arbitration with conditions. If parties cannot settle their dispute by peaceful means, the dispute shall be submitted to arbitration. For example, this is the nature of the dispute settlement provisions of the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region.<sup>671</sup> Here, arbitration cannot proceed without an arbitration agreement.<sup>672</sup> Third, the arbitration procedure is an alternative method of dispute settlement. The arbitration provision in the Basel Convention is an example of an alternative form of dispute settlement. This means that the disputing parties could choose arbitration or submit the dispute to the International Court of Justice for dispute settlement.<sup>673</sup> Arbitration is a significant enforcement measure under the Basel Convention, which sets out its arbitration procedure and details.<sup>674</sup> According to Article 20, disputes under the Basel Convention should be resolved by peaceful means primarily, such as negotiation; however, if this proves impossible, by agreement on submission either to arbitration in accordance with the procedure set out in Annex VI or to the International Court of Justice.<sup>675</sup> However, there are no

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<sup>670</sup> Bamako Convention (n 26) Article 20 s 3;

The arbitration of the Bamako Convention is as follows: *'The conduct of arbitration of disputes between Parties by the ad hoc organ provided for in paragraph 2 of this Article shall be as provided in Annex V of this Convention.'*

<sup>671</sup> Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region (adopted 24 March 1983, entered into force 11 October 1986) 1506 UNTS 157 Article 23 s 2 stated: *'If the Contracting Parties concerned cannot settle their dispute through the means mentioned in the preceding paragraph, the dispute shall upon common agreement, except as may be otherwise provided in any protocol to this Convention, be submitted to arbitration under the conditions set out in the Annex on Arbitration.'*

<sup>672</sup> The condition of arbitration is flexible and based on the agreement between dispute parties, including refusing the arbitration procedure.

<sup>673</sup> Basel Convention (n 23) Article 20 s 3

<sup>674</sup> Ibid Annex VI

<sup>675</sup> Kummer (n 438) 76-77

reported instances of arbitration being used.

#### **4.2.4 Basel Protocol as an Example of Civil Liability Enforcement**

The Basel Convention includes specific provisions to control the transboundary movement of hazardous wastes and, in this regard, imposed strict obligations on states. However, there were no liability and compensation mechanisms in the Convention itself, but merely provided for consultations on liability to take place.<sup>676</sup> The Basel Protocol on Liability and Compensation was adopted in 1999 at COP5 to improve state liability enforcement and ensure compensation for environmental harm caused by the transboundary movement of hazardous wastes.<sup>677</sup> The objective of this Protocol is *'to provide for a comprehensive regime for liability and for adequate and prompt compensation'*.<sup>678</sup> Its scope of application includes *'damage due to an incident occurring during a transboundary movement of hazardous wastes and other wastes and their disposal, including illegal traffic, from the point where the wastes are loaded on the means of transport in an area under the national jurisdiction of a State of export'*.<sup>679</sup> Essentially, the Basel Protocol is the outcome of *'consultations on liability'* of the Basel Convention.<sup>680</sup>

##### **4.2.4.1 State Liability under the Basel Protocol**

Articles 8 and 9 of the Basel Convention impose duties on state parties to recognise whether the exported waste violates the importation contract and breaches the regulation on illegal traffic in hazardous wastes.<sup>681</sup>

Traditional state responsibility is that the state shall assume the responsibility for

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<sup>676</sup> Basel Convention (n 23) Article 12;

Sands (n 171) 790

<sup>677</sup> Basel Protocol (n 21)

<sup>678</sup> Basel Convention (n 23) Article 1

<sup>679</sup> Basel Protocol (n 21) Article 3

<sup>680</sup> Basel Convention (n 23) Article 12

<sup>681</sup> Basel Convention (n 23) Article 8 is on rules of Duty of Re-import, Article 9 is on the rule of illegal traffic.

international wrongful action. The factors that give rise to this responsibility are actions or non-actions attributable to a state that result in the breach of international obligations.<sup>682</sup> Liability under the Basel Protocol is different from traditional state responsibility. State liability for compensation under the Basel Protocol covers remedies for injury to the environment, human health, and properties in the affected state. Overall, the liability mechanism of the Basel Protocol includes state liability for public law issues and civil compensation liability for private law issues.<sup>683</sup> According to the Article 4 of the Basel Protocol:

*'The person who notifies in accordance with Article 6 of the Convention, shall be liable for damage until the disposer has taken possession of the hazardous wastes and other wastes. Thereafter the disposer shall be liable for damage. '*

*'If the State of export is the notifier or if no notification has taken place, the exporter shall be liable for damage until the disposer has taken possession of the hazardous wastes and other wastes'.*<sup>684</sup>

The first provision above shows civil liability where the exporter is a person. The second provision requires state liability where the breacher is a state of export.<sup>685</sup> Notably, the Basel Protocol's definition of 'damage' includes environmental damage, loss of human life or personal injury, and property loss or damage.<sup>686</sup>

#### **4.2.4.2 Strict Liability**

The principle underlying the Basel Protocol is strict compensation liability

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<sup>682</sup> UN (n 183)

<sup>683</sup> Crawford (n 188)

<sup>684</sup> Basel Protocol (n 21) Article 4 s 1

<sup>685</sup> Sompong Sucharitkul, 'State Responsibility and International Liability under International Law' (1996) 18 Loyola of Los Angeles International and Comparative Journal 821

<sup>686</sup> Basel Protocol (n 21) Article 2 s 2(c)

complemented by fault-based liability. Article 4 of the Basel Protocol provides that: *‘The person who notifies in accordance with Article 6 of the Convention will be liable for damage until the disposer taken possession of the hazardous waste and other waste’*.<sup>687</sup> In other circumstances, the Basel Protocol provides fault-based liability. This is liability for damage caused by lack of compliance with the Basel Convention or intentional, reckless, negligent, omission, or actions.<sup>688</sup> Moreover, a financial limit to strict liability claims is provided in Annex B. The financial limit is the lowest level of compensation, which does not include any interest or cost awarded.<sup>689</sup> This financial limit does not apply in the case of fault-based liability. This limit benefits the victim by ensuring they can obtain compensation, as insurers would be very reluctant to insure unlimited strict liability.<sup>690</sup> In addition, the Basel Protocol also stipulated a limitation period for liability, which is *‘within ten years from the date of the incident’*.<sup>691</sup>

#### **4.2.5 Insurance Mechanism**

In order to ensure that compensation is fully and timeously paid to the victim, the Basel Protocol requires that parties acquire insurance, deposits or other financial security mechanisms. It requires that:

*‘The persons liable under Article 4 shall establish and maintain during the period of the time limit of liability, insurance, bonds or other financial guarantees covering their liability under Article 4 of the Protocol for amounts not less than the minimum limits specified in paragraph 2 of Annex B’*.

So, the provisions of the Basel Protocol, which adopted a comprehensive liability

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<sup>687</sup> Ibid Article 4 s 1;

Basel Convention (n 23) Article 6, the person means the states of exports or the generator or exporter.

<sup>688</sup> Basel Protocol (n 21) Article 5

<sup>689</sup> Ibid Annex B

<sup>690</sup> Daniela Weblend, ‘Improving Compliance Mechanism of the International Waste Trade Regime by Introducing Economic Compliance Incentives’ (2012) 16 Max Planck Yearbook of United Nations Law 397

<sup>691</sup> Basel Protocol (n 21) Article 13

mechanism involving fault-based and strict liability, also provided an insurance mechanism with financial limits for strict liability claims.<sup>692</sup> To be sure, the reason for requiring insurance is to guarantee that compensation is provided for environmental and other damage from the transboundary movement of hazardous wastes caused by the exporter, transporter, importer, and disposer. This will solve the problem of injured parties' reluctance to seek compensation because of their limited financial capacity.<sup>693</sup> Considering the enormous amount of money required for environmental compensation, obstacles have been encountered in establishing the insurance mechanism. This is one reason the Basel Protocol has yet to enter into force.<sup>694</sup> However, given the existence of such mechanisms for marine oil pollution and their extensive use, it remains unclear why there is such opposition, although oil may be a more profitable cargo than hazardous waste<sup>695</sup>.

#### **4.2.6 Financial Mechanism**

If we take the view that enforcement involves securing compliance with treaties and that this can be achieved through non-confrontational means, including assistance, then the author would argue that it is appropriate to consider the financial mechanisms of the Convention as they may be used in this context. The financial mechanism of the Basel Convention includes a Trust Fund, Technical Cooperation Trust and Revolving Fund to assist in the international implementation of and

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<sup>692</sup> Basel Protocol (n 21) Article 4

<sup>693</sup> Weblend, *supra* n. 690

<sup>694</sup> H Bocken, E de Kezel, and K Bernauw, 'Limitations of liability and compulsory insurance under the Protocol on liability for transboundary movements of hazardous waste and other waste' (Report prepared at the request of the Secretariate of the Basel Convention in connection with the preparation of the Protocol on liability and compensation for damage resulting from the transboundary movement of hazardous wastes and their disposal)

<<http://archive.basel.int/protocol/report%20financial%20limits.pdf>> accessed May 2016

<sup>695</sup> Sands (n 171) 615-616 790

securing compliance with the Basel Convention.<sup>696</sup>

#### **4.2.6.1 Trust Fund (BC) and Technical Cooperation Trust Fund (BD)**

The parties to the Basel Convention established the Trust Fund and Technical Cooperation Trust Fund at COP1.<sup>697</sup> The Trust Fund provides financial support for the Secretariat of the Basel Convention to enable it to carry out its administrative functions. On the other hand, the Technical Cooperation Trust Fund is meant for developing countries or countries that need technical assistance to implement the Basel Convention.<sup>698</sup> The Trust Fund sources comprise financial contributions from state parties and voluntary contributions from non-party states, governments, intergovernmental and non-government organisations such as environmental NGOs and waste companies. However, the source of the Technical Cooperation Trust Fund is limited, especially as most of its resources are from state contributions for specific purposes.<sup>699</sup>

#### **4.2.6.2 Revolving Fund**

The COP of the Basel Convention provided that establishing a revolving fund for emergency situations and minimising damage caused by the transboundary movement of hazardous waste and its disposal should be considered.<sup>700</sup> However, the funding source is too limited.<sup>701</sup> Many potential contributors and organisations believe that the Basel Convention only refers to environmental protection as it concerns the transboundary movement of hazardous wastes. However, the Basel

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<sup>696</sup> There are nine documents of Trust Fund.

‘Trust Fund for the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal’ <<http://www.basel.int/TheConvention/FinanceBudget/tabid/1279/Default.aspx>> accessed February 2022

<sup>697</sup> UNEP Institutional And Financial Arrangements (1992) UNEP/CHW. 1/24 BC-I/7

<sup>698</sup> See (n 696)

<sup>699</sup> Weblend (n 690)

<sup>700</sup> Basel Convention (n 23) Article 14 s 2

<sup>701</sup> For example, UNEP/CHW. 1/24 BC-I/14, UNEP/CHW. 2/30 BC-II/4, UNEP/CHW. 3/34 BC-III/3, UNEP/CHW. 4/35 BC-IV/20 and UNEP/CHW. 5/29 BC-V/18 are all required to establish a revolving fund.



Convention not only controls the transboundary movement of hazardous wastes but also applies to other areas of waste control. For example, it also aims to minimise the production of domestic hazardous and other wastes and implement the ESM of such wastes.<sup>702</sup> The whole purpose of a revolving fund is to deal with emergencies, which are much more likely to be caused by or as a result of the transboundary movement of hazardous waste than by other waste activities. If there were a fuller understanding of this, there might be more contributions to increase the resources available under the said Fund.

In general, international enforcement of the Basel Convention adopts common international environmental law regime mechanisms. However, international enforcement mechanisms are still 'soft' because they lack institutions to enforce compliance by national states. There is limited evidence of the enforcement mechanisms in the Basel Convention being used to deal with non-compliance involving substantive issues such as illegal traffic aside from some negotiated cases,<sup>703</sup> and some non-compliance proceedings mainly deal with failure to notify the Secretariat.<sup>704</sup> There appear to be no examples of mechanisms being used to address failures in national enforcement that lead to non-compliance with the Convention. In addition, parties and non-parties are making relevant domestic implementing laws and regulations to protect the environment of their own countries from transboundary movement of hazardous wastes and other wastes. The Basel Convention is an international law that ensures that domestic legislation is adopted in many states, for example, through criminal law mechanisms and enforcement networks. Therefore, compliance with the Basel Convention is heavily dependent on national enforcement. In this regard, an outline of what is required of states at the

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<sup>702</sup> Weblend (n 690)

<sup>703</sup> See for example, Chapter 4, 4.2.3.1 of this thesis, the China – Netherlands Joint enforcement case mentioned earlier.

<sup>704</sup> 'The Implementation and Compliance Committee Reports'

<<http://www.basel.int/TheConvention/ImplementationComplianceCommittee/Reports/tabid/2289/Default.aspx>> accessed February 2022

national level is given below.

### **4.3 Enforcement Networks under the Basel Convention**

For the purpose of securing compliance with the provisions of the Basel Convention, the Environmental Network for Optimizing Regulatory Compliance on Illegal Traffic (ENFORCE) was established as a specific body to bring together existing resources and enhance cooperation and coordination between relevant entities through a network.<sup>705</sup> In particular, the enforcement network under the Basel Convention shows that many entities have cooperative and coordinative roles under the Basel Convention. The cooperation and coordination in this context can be divided into two parts. The first one is cooperation and coordination with other environmental law regimes, for example, the Rotterdam Convention<sup>706</sup> and the Stockholm Convention.<sup>707</sup> The other one is cooperation and coordination with entities, for example, IMPEL,<sup>708</sup> INECE,<sup>709</sup> and GCI.<sup>710</sup>

#### **4.3.1 Networks with other Environmental Law Regimes**

There is cooperation and coordination between the Basel Convention and other environmental law regimes, such as the Minamata Convention on Mercury.<sup>711</sup> Because mercury waste is hazardous, its trade is regulated by both the Basel Convention and the Minamata Convention. Therefore, these two conventions cooperate extensively.<sup>712</sup> The Minamata Convention explicitly references the rules

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<sup>705</sup> 'ENFORCE'

<<https://www.basel.int/Implementation/TechnicalAssistance/Partnerships/ENFORCE/Overview/tabid/4526/Default.aspx>> accessed January 2024

<sup>706</sup> Rotterdam Convention (n 561)

<sup>707</sup> Stockholm Convention (n 561)

<sup>708</sup> European Union Network for the Implementation and Enforcement of Environmental Law (IMPEL)

<sup>709</sup> International Network for Environmental Compliance and Enforcement (INECE)

<sup>710</sup> Green Customs Initiative (GCI)

<sup>711</sup> Minamata Convention on Mercury (adopted 10 October 2013, entered into force 16 August 2017) 3202 UNTS

<sup>712</sup> UNEP Cooperation and Coordination with the Minamata Convention of Mercury (2022) UNEP/CHW.16/21

of the Basel Convention.<sup>713</sup>

However, there are very close networks with other environmental law regimes, particularly the Rotterdam Convention and Stockholm Convention. Each related Basel, Rotterdam, and Stockholm Convention maintains a separate secretariat managed by UNEP. Additionally, the Food and Agriculture Organization (FAO) hosts a secretariat responsible for overseeing matters pertaining to the Rotterdam Convention.<sup>714</sup> Meanwhile, each convention convened an independent Conference of Parties (COPs). However, there was a deficiency in cooperation and coordination among these secretariats and COPs, which adversely impacted the efficiency of implementation and enforcement of the conventions, given the links between them.

So, the Simultaneous Extraordinary meeting of the Conference of Parties to the Basel Convention, Rotterdam Convention and Stockholm Convention (ExCOPs), which convened in Bali in 2010<sup>715</sup> endorsed a decision on, inter alia, joint activities, services, and managerial function, as well as a review mechanism and follow-up.<sup>716</sup> After that, the three separate convention secretariats administrated by UNEP were merged into a joint secretariat.<sup>717</sup> In accordance with the decision of the ExCOPs, the joint portal was established,<sup>718</sup> and the Secretariat has undertaken joint activities that have enhanced cooperation and coordination among the three conventions.<sup>719</sup> According to the joint portal of the three conventions, joint activities include technical assistance and capacity development engaged with other entities. For

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<sup>713</sup> Ibid Article 11, the regulation of Environmentally Sound Management and movement across international boundaries referenced the rules of the Basel Convention

<sup>714</sup> China Environmental News, ‘三公约的由来’ [The Original of Three Conventions] [2013] 33 China Environment Science 1016

<sup>715</sup> ‘Basel Convention, Milestone’

<<https://www.basel.int/TheConvention/Overview/Milestones/tabid/2270/Default.aspx#>> accessed January 2024

<sup>716</sup> IISD, ‘Chemical and Waste ExCOPs Convene in Bali’ (24 February 2020)\_

<<https://sdg.iisd.org/news/chemical-and-waste-excops-convene-in-bali-summary/>> accessed January 2024

<sup>717</sup> Ibid

<sup>718</sup> ‘BRS Conventions’, <<https://www.brsmeas.org/Home/tabid/813/language/es-CO/Default.aspx>> accessed January 2024

<sup>719</sup> China Environmental News (n 714)

example, Interpol (the International Criminal Police Organization) and the Secretariat have jointly developed an E-learning Module for law enforcement officers.<sup>720</sup>

### 4.3.2 Enforcement Networks with other Entities

Enforcement Networks Fact Sheets under the Basel Convention show there are other entities involved in Basel Convention enforcement, including the Asian Regional Partners Forum on Combating Environmental Crime (ARPEC)<sup>721</sup>, the Asia Network for Prevention of Illegal Transboundary Movement of Hazardous Wastes,<sup>722</sup> and ENFORCE also issues reports of the activities on their website.<sup>723</sup> According to a recent summary report,<sup>724</sup> entities such as the UNEP secretariat and the GCI contributed to sharing and developing training tools and materials, hosting and organising workshops or electronic training and information sessions, in particular for developing countries. The number of activities in which it is involved demonstrates that the GCI plays a significant role in the enforcement networks of the Basel Convention.<sup>725</sup>

#### 4.3.2.1 Green Customs Initiative (GCI)

With the development of society, international trade in 'environmentally-sensitive' commodities such as chemicals, E-waste, and hazardous waste threatens the global

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<sup>720</sup> 'E-learning Module for Law Enforcement',

<<https://www.brsmeas.org/Implementation/TechnicalAssistance/ToolsandMethodologies/Elearningmoduleforlawenforcement/tabid/3534/language/en-US/Default.aspx>> accessed January 2024

<sup>721</sup> 'Asian Regional Partners Forum on Combating Environmental Crime' (ARPEC)

<<https://www.basel.int/Implementation/CountryLedInitiative/History/Combatingillegaltraffimoreeffectively/EnforcementNetworks/ARPEC/tabid/2931/Default.aspx>> accessed January 2024

<sup>722</sup> 'Asia Network for Prevention of Illegal Transboundary Movement of Hazardous Wastes'

<<https://www.basel.int/Implementation/CountryLedInitiative/History/Combatingillegaltraffimoreeffectively/EnforcementNetworks/AsianNetwork/tabid/2936/Default.aspx>> accessed January 2024

<sup>723</sup> ENFORCE (n 705)

<sup>724</sup> Ibid

<sup>725</sup> Ibid

environment.<sup>726</sup> This trade has resulted in illegal activities with detrimental environmental effects, predominantly occurring outside the borders of the states in which these commodities are produced or generated. Customs and border controls play a crucial role in the enforcement process by ensuring the implementation of laws and regulations at borders.<sup>727</sup>

In addition, according to reports issued by the Twenty-first Session of the United Nations Environment Programme (UNEP) Governing Council<sup>728</sup> and the Seventh Special Session of the UNEP Governing Council,<sup>729</sup> establishing projects and activities to ensure coordination and cooperation with international organisations has become increasingly necessary. Against this background, the Green Customs Initiative (GCI) was launched in 2004, providing *'opportunities for coordinated and cost-effective development of tools, delivery of training and awareness-raising of customs officers and other border control officers through its umbrella partnership involving multiple organisations with diverse mandates.'*<sup>730</sup> GCI partners with the Basel Convention and other environmental treaty regimes and organisations, such as CITES, UNEP, and the World Customs Organization (WCO).<sup>731</sup>

Generally, GCI mainly undertakes two approaches.<sup>732</sup> The first one is coordinated

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<sup>726</sup> UNEP, 'Customs and Enforcement' <<https://www.unep.org/ozonaction/what-we-do/customs-and-enforcement>> accessed January 2024

<sup>727</sup> UNEP, *Green Customs Guide to Multilateral Environmental Agreements* (UNEP Law Division, 2022)

<sup>728</sup> Coordination and Cooperation Within and Outside the United Nations Including Non-governmental Organizations, Report on the Implementation of Governing Council Decision 20/6, UNEP/GC/21. INF/15, 26. January, 2001.

<sup>729</sup> Compliance with and Enforcement of Multilateral Environmental Agreements, in 'Report of the Governing Council on the work of its Seventh Special Session/Global Ministerial Environment Forum', UNEP/GCSS. VII/6, 5 March 2002, at: [https://wedocs.unep.org/bitstream/handle/20.500.11822/11331/K0260448\\_E\\_GcssVii-Proceedings.pdf](https://wedocs.unep.org/bitstream/handle/20.500.11822/11331/K0260448_E_GcssVii-Proceedings.pdf), accessed January 2024.

<sup>730</sup> 'The Green Customs Initiative' <<https://www.unep.org/explore-topics/environmental-governance/what-we-do/strengthening-institutions/green-customs>> accessed January 2024

<sup>731</sup> 'GCI Partners' <<https://www.greencustoms.org/workshops/>> accessed January 2024

<sup>732</sup> J. Wanja, 'The Green Customs Initiative-Presented at the Green Customs Capacity Building Workshop for Southeast Asia Region' (13-15 March 2023) <<https://wedocs.unep.org/bitstream/handle/20.500.11822/43269/A%20Presentation%20about%20Green%20Customs%20Initiative.pdf?sequence=1&isAllowed=y>> accessed January 2024

delivery through the partnership, for instance, coordinated training. GCI leads the ongoing activity, '*developing national training curricula for customs and other enforcement entities*'. Partners, including the Basel Convention, cooperate with the GCI. The second approach is structuring interaction with the customs community of MEAs. This approach is usually undertaken by the WCO, which is GCI's partner.<sup>733</sup> WCO established the Customs Enforcement Networks Communication Platform (CENcomm) for a web-based communication system permitting a closed group of officers to exchange messages for the duration of an operation or project.<sup>734</sup> The first global joint operation focused on the trade in waste - Operation Demeter engaged the Customs administrations of 65 countries and was supported by their national environmental agencies, police forces, the Secretariat of the Basel Convention, and seven WCO Regional Intelligence Liaison Offices (RILO).<sup>735</sup> During the operation, 516 messages were exchanged through CENcomm, and it led to 56 reported seizures of more than 36,714,275 kg and 1,830 pieces of waste.<sup>736</sup>

#### **4.3.2.2 Other Entities**

Enforcement networks are widely used under the Basel Convention, especially in the context of transboundary illegal trade. Chapter 7 of this thesis will analyse these networks and their activities, including INECE and IMPEL.

To sum up, many organisations are contributing to the enforcement of the

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<sup>733</sup> Ibid

<sup>734</sup> 'CENcomm' <<https://www.wcoomd.org/en/topics/enforcement-and-compliance/instruments-and-tools/cen-suite/cencomm.aspx>> accessed January 2024

<sup>735</sup> WCO, 'Operation Demeter Executive Summary. Customs Joint Operation to Combat Illegal Transboundary Movement of Waste between Europe, Asia/Pacific and Africa,' (23 March -11 May, 2019) <[https://www.wcoomd.org/-/media/wco/public/global/pdf/topics/enforcement-and-compliance/activities-and-programmes/environmental-crime/ex\\_sum\\_demeter\\_en.pdf](https://www.wcoomd.org/-/media/wco/public/global/pdf/topics/enforcement-and-compliance/activities-and-programmes/environmental-crime/ex_sum_demeter_en.pdf)> accessed January 2024; WCO, 'Tons of Illegal Waste Seized under Operation Demeter III' (20 January 2014) <<https://www.wcoomd.org/en/media/newsroom/2014/january/tons-of-illegal-waste-seized-under-operation-demeter-iii.aspx#:~:text=A%20joint%20global%20Customs%20initiative,textiles%2C%20and%20e%2Dwaste>> accessed January 2024

<sup>736</sup> Ibid

international waste trade regime, and the Basel Convention is also seeking to ensure more cooperation and coordination with other MEAs for better implementation and enforcement.

#### **4.4 General National Enforcement Mechanism to Control the Transboundary Movement of Hazardous Wastes**

The system of environmental law aimed at achieving environmental protection is divided into three parts, which are (1) regulation and permits to establish standards and conditions required for complying with the law, (2) the role of inspections to establish whether activities comply with the regulations and permits, and (3) enforcement to deal with non-compliance. The forms of non-compliance vary, as they include inconsequential or imperceptible damage by minor breaches of environmental regulation. In this situation, the public could report suspected non-compliance to environmental enforcement authorities. Compared with minor breaches, many industry non-compliance cases involve large quantities of hazardous waste dumping, which threatens the natural environment and human health.<sup>737</sup>

##### **4.4.1 Criminalisation**

Criminalisation is the direct and formal method of law enforcement, which is increasingly one of the elements required by international environmental enforcement mechanisms.<sup>738</sup> Environmental crime mainly involves the illegal trade in wildlife, illegal logging and its associated timber trade, illegal, unreported and unregulated fishing, illegal trade in controlled chemicals (including ozone-depleting substances), and illegal disposal of hazardous waste. Criminal law is reserved for serious issues where there might be immediate and irreversible consequences and

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<sup>737</sup> Farmer (n 41) 134-135

<sup>738</sup> Stuart Bell and others, *Environmental law* (9<sup>th</sup> edn, Oxford University Press 2017) 266-279; See also Birnie (n 168) 478

where deterrence is required.<sup>739</sup> The Basel Convention considered that illegal traffic in hazardous wastes and other wastes is criminal,<sup>740</sup> and requires that *Parties introduce appropriate national/domestic legislation to prevent and punish illegal traffic. The Parties shall cooperate with a view to achieving the objects of this Article.*<sup>741</sup> It was considered that without appropriate international and national regulation, including criminal measures, environmental damage caused by illegal traffic would flourish. However, national legislation has different approaches towards criminalising illegal traffic in hazardous and other wastes. This thesis will discuss national enforcement in two different countries in the following chapters.

#### **4.4.2 Enforcement Networks and Cooperation**

National enforcement of the Basel Convention raises the need for both national and international cooperation of agencies. Nationally, a number of agencies might be involved in the process, including environmental protection agencies, customs and the police. Internationally, since every transboundary movement of hazardous wastes will involve agencies in at least two states and possibly more if there are one or more transit states, there is a need for cooperation between the agencies of the various states.<sup>742</sup> This is where the concept of networks is relevant (and will be developed more fully in a later chapter).<sup>743</sup>

As was mentioned above, the idea and requirement of international networks also arguably flow from the general state obligations in international law to cooperate with each other, which is also specifically embedded in the Basel Convention in Article 4(2) (h), which states that:

*“Each party shall take appropriate measures to: Cooperate in activities*

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<sup>739</sup> LanXiang Jiang, ‘环境刑法’ [Environmental Criminal Law] (China Forestry Publishing House 2004) 288

<sup>740</sup> Basel Convention (n 23) Article 4 s 3

<sup>741</sup> Ibid Article 9 s 5

<sup>742</sup> See the discussion on international networks above

<sup>743</sup> See Chapter 5 and Chapter 6 below



*with other Parties and interested organisations, directly and through the Secretariat, including the dissemination of information on the transboundary movement of hazardous wastes and other wastes, in order to improve the environmentally sound management of such wastes and to achieve the prevention of illegal traffic.”*

Therefore, considering the national position, many countries have an ‘Environmental Protection Agency’ (EPA) with the core environmental functions of permitting activities, inspecting activities, and enforcing compliance with the law.<sup>744</sup> However, in some states, such as China, environmental enforcement authorities are established at the national and local levels. The problem, however, is that enforcement authorities cannot work in isolation but must interact with other institutions to be effective.<sup>745</sup> That is because many functions are involved in environmental enforcement, particularly in the context of transboundary hazardous waste shipments, which cannot be fulfilled by one institution. The efficiency of environmental enforcement authorities might be impaired if other relevant institutions are not interacting sufficiently. So, for example, China has developed an internal enforcement network to try and ensure efficient collaborative enforcement between different agencies and levels of government.<sup>746</sup>

International enforcement networks focusing on regional and international cooperation among countries to address ineffective compliance and enforcement of MEAs have also been developed.<sup>747</sup> In the context of the Basel Convention, an example of such international and regional networks is the Regional Enforcement Network for Chemicals and Waste (Project REN) established by UNEP. This

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<sup>744</sup> Farmer (n 41) 35

<sup>745</sup> Ibid 46-50

<sup>746</sup> Xinyuan Lu, Hu Qin and JunYang, ‘Domestic Environmental Enforcement Networks: The Practice of China’, in Michael Faure, Peter De Smedt and An Stas (eds), *Environmental Enforcement Networks: Concepts, Implementation and Effectiveness* (Edward Elgar Publishing 2015) 430-432

<sup>747</sup> Savasan (n 305) 68-104

network aims to increase the capacity of law enforcement, specifically as it relates to the enforcement of the Basel Convention, Rotterdam Convention, and Stockholm Convention.<sup>748</sup> International environmental law enforcement cannot be conducted by any single state. Therefore, enforcement networks require cooperation between departments and authorities from different countries.<sup>749</sup>

#### **4.5 Conclusion**

To conclude, this chapter first analysed the Basel Convention enforcement mechanisms, although such mechanisms also apply to other environmental law regimes, such as the Montreal Protocol non-compliance mechanism.<sup>750</sup> However, the Basel Convention also has other particular enforcement mechanisms, such as state liability and liability under the Basel Protocol. Insurance and financial mechanisms are also widely applied to hazardous waste trade pollution.

It can be seen that there are many mechanisms with which to enforce the obligations under the Basel Convention. However, these international environmental enforcement mechanisms mostly adopt general international environmental law mechanisms. Unlike national enforcement, international environmental enforcement is arguably limited in effectiveness because there are no powerful enforcement authorities at that level to compel compliance. As the analysis in this chapter shows, the general approaches of international enforcement include negotiation and recommendation, among other approaches which are quite 'soft' in nature.<sup>751</sup> This is illustrated quite starkly by cases such as the Canada - Philippine case, in which the Philippines requested that Canada re-import their wastes from the Philippines. Canada refused, citing limited domestic law, and there was no way to compel Canada

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<sup>748</sup> Project REN (n 614)

<sup>749</sup> The China–Netherlands case is a typical joint enforcement case between Chinese and Dutch enforcement authorities. See section Chapter 4, 4.2.3.1

<sup>750</sup> See Chapter 2

<sup>751</sup> Samaan (n 291)

to comply with the Basel Convention.<sup>752</sup> However, even though international enforcement often takes a soft approach, it is still valuable in enhancing national enforcement capacities by building networks for joint enforcement between states and supporting the development of national legislation and enforcement through international actions.<sup>753</sup>

Compared with international enforcement, national enforcement in environmental protection is more effective as there are civil and criminal mechanisms that can be enforced by national environmental authorities. International environmental law is the framework adopted in national environmental legislation. For example, the Basel Convention has been translated into EU Law as the EU's Waste Shipment Regulation<sup>754</sup> (and in turn into Member State laws, for example, in the UK<sup>755</sup>), and the Law of the People's Republic of China (PRC) on Prevention of Environmental Pollution caused by Solid Waste (Solid Waste Law).<sup>756</sup> Nevertheless, many state parties to the Basel Convention still lack national enforcement of the relevant law. That is because the national legislation is weak or even non-existent or because enforcement authorities lack capacity and resources.<sup>757</sup> Given the different legislation of countries, their enforcement mechanisms are diverse. The next chapters will analyse national enforcement mechanisms and procedures in typical export and import countries. However, this chapter also suggests that networks can be used to

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<sup>752</sup> Bautista (n 646)

<sup>753</sup> For example, UNEP Financing and budget for the biennium 2014–2015 (2013) UNEP/CHW. 11.24 BC-11/26

<sup>754</sup> For example: Council Regulation (EC) 1013/2006 of the European Parliament and of the Council of 14 June 2006 on Shipments of Waste [2006]; Andrea Illes, Kristof Geeraerts and Jean-Pirtr Schweizer, *'Illegal shipment of e-waste from the EU-A case study on illegal e-waste export from the EU to China'* (2015) EFFACE Work Package 4, European Union Action to Fight Environmental Crime Project

<sup>755</sup> The Transfrontier Shipment of Waste Regulations 2007, SI 2007/1711

<sup>756</sup> PRC Solid Waste Law 1995

The Solid Waste Law adopted at the 16th Meeting of the Standing Committee of the Eighth National People's Congress on 30 October 1995, promulgated by Order No. 58 of the President of the People's Republic of China on 30 October 1995, and effective as of 1 April 1996

<sup>757</sup> Werksman (n 178) 81

fulfil international cooperation obligations and address fragmented national enforcement frameworks to enhance enforcement. This chapter also delineates the networks connecting the Basel Convention with other environmental law regimes, as well as the networks and mechanisms established by institutions such as the Basel Secretariat, national environmental agencies, WCO, and the GCI to ensure more effective enforcement over the transboundary movement of hazardous waste.

This chapter identified that for the purpose of enhancing enforcement, it is necessary to consider the legislation governing national enforcement capacity, how to improve the legislation and enforcement capacity, and how networks can play a role in improving enforcement in countries. These issues are essential for the overall research questions in the thesis and will be more fully developed in later chapters.

## **Chapter 5 Relevant Environmental Legislation and Enforcement Institutions in China and UK**

### **5.1 Aim and Outline**

After the discussion of the enforcement of environmental law and, in particular, the Basel Convention, we now consider enforcement at the national level because, as we have seen, the enforcement of the Basel Convention is largely dependent on national enforcement. This chapter aims to provide the reader with an understanding of national enforcement of the Basel Convention in the two countries chosen for the study, China and the UK. This will enable the reader to understand the relevance of the key themes of enforcement in their national context. In turn, this will enable the reader to appreciate the potential for using networks to enhance enforcement, which is the key research question in the thesis.

Environmental ministries and institutions carry out environmental enforcement activity in accordance with relevant rules and legislation.<sup>758</sup> Before discussing enforcement in China and the UK,<sup>759</sup> it is necessary to understand the legislation and institutions of the two countries. Legislation provides the basis for law enforcement, and the institutions determine who has the power to enforce such laws and policies. China and the UK are very different countries in terms of culture, history, and politics. The legislative system and institutional framework are also different.

This chapter deepens the understanding of the legal and institutional basis of environmental law enforcement, especially in relation to the transboundary movement of hazardous wastes. Firstly, this chapter introduces the common source of environmental law in the two countries, namely, international law that influences

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<sup>758</sup> Farmer (n 41) 37-43

<sup>759</sup> The choice of countries is considered in Chapter 1 - Introduction

national legislation.<sup>760</sup> Then, it will introduce general environmental legislation, including at the national and local levels. Legislation in this regard also includes enforcement legislation in civil law and criminal law, especially as they relate to environmental protection. After legislation, this chapter discusses the environmental law institutions of the two countries and considers their general powers and duties. Finally, the chapter provides a comparison of relevant Chinese and UK legislation and institutions.

Indeed, it is necessary to analyse relevant environmental legislation and enforcement institutions in order to properly understand the enforcement of laws relating to the transboundary movement of hazardous wastes. As discussed in the previous chapter, state enforcement at the national level is the most effective way of ensuring compliance with international obligations. This level of enforcement can include all activities of state structures or structures delegated by the state which aim to promote compliance and achieve the outcomes required by regulators.<sup>761</sup> Therefore, it is important to address national legislation and enforcement relating to controlling the transboundary movement of hazardous wastes.

## **5.2 Sources of Environmental Law on the Transboundary Movement of Hazardous Wastes**

Due to widespread environmental problems, environmental law emerges at international, regional, and national levels.<sup>762</sup> Controlling the transboundary movement of hazardous wastes is a significant environmental concern that has received the attention of national legislation and institutions. In this regard, China and the UK have different regulatory frameworks; however, some international law

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<sup>760</sup> Chapter 4 discussed international legislation, such as the UN environmental instruments. This introduction discusses the national legislation of the two countries.

<sup>761</sup> OECD (n 385)

<sup>762</sup> Bell (n 738) 9-10

impacts both UK and Chinese national environmental law regimes.<sup>763</sup>

### **5.2.1 Common Source of Environmental Law Legislation on the Transboundary Movement of Hazardous Wastes**

The United Nations (UN) policy decisions have significantly influenced not only UK and Chinese laws but also the regulatory framework of other states significantly.

Laws, such as protocols, conventions or treaties, are formally agreed upon by parties and are legally binding and enforceable; however, soft laws made by the UN, such as charters, declarations and agendas or recommendations, are not binding and enforceable but seek to influence and shape the environmental laws and actions of states. For example, as a non-binding legal instrument, the Cairo Guidelines and Principles for the ESM of Hazardous Wastes are primarily designed to assist governments in developing and implementing national management policies for hazardous wastes.<sup>764</sup>

Regarding the specific area of environmental law on the transboundary movement of hazardous wastes, there are broad international conventions agreed upon by signatory states. The most significant convention is the Basel Convention, which was discussed earlier in the thesis. Moreover, the Meeting of Conference of the Rotterdam Convention<sup>765</sup> and the Stockholm Convention<sup>766</sup> also participated in the COP9 of the Basel Convention to better address the challenge of hazardous chemicals and waste.<sup>767</sup> Although international conventions are sources of domestic legislation, they also promote understanding of environmental problems, facilitate the exchange

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<sup>763</sup> For example, The Paris Agreement requires developed countries to reduce greenhouse gas emissions; The Chinese waste law system shall fulfil the requirements of the Basel Convention. This point will be discussed in the following part of this chapter.

<sup>764</sup> Kummer (n 438) 39

<sup>765</sup> Rotterdam Convention (n 561)

<sup>766</sup> Stockholm Convention (n 561)

<sup>767</sup> UNEP (n 561)

of information, and provide measures for addressing environmental problems.<sup>768</sup>

## **5.2.2 Introduction of Environmental Law relating to the Transboundary Movement of Hazardous Wastes in China**

China was one of the biggest markets that attracted the importation of hazardous waste from the EU, the United States, and other developed countries.<sup>769</sup> International trading, especially international waste trading, has developed rapidly since China's reform and opening-up policy. There are two approaches to importing waste from other countries.<sup>770</sup> The first approach is formal import, which involves following the customs rules. For the purpose of solving the problems of a shortage of raw materials and equipment for some enterprises, a large amount of solid waste and second-hand equipment was imported to China. There was no consideration of the proportion of imported waste in relation to their actual demand. Plenty of imported waste was hoarded because it was imported blindly.<sup>771</sup> That hoarding led to the development of an industry focused on waste removal. Still, a large amount of imported waste entered the market in the form of new goods after simple processing, without consideration of the lifespan of the goods and ecological pollution. However, such waste and second-hand imports were banned in 2018.<sup>772</sup> The second approach involves smuggling hazardous wastes from abroad in the name of goods in the context of legal trade.<sup>773</sup> In order to gain huge profits, criminals transfer hazardous

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<sup>768</sup> Lin (n 279)

<sup>769</sup> Yuanfang Zhou, '中国不再进口洋垃圾' [China No Longer Imports Foreign Wastes], (Guanchazhe News, 13 June 2018) <[https://www.guancha.cn/international/2018\\_07\\_13\\_464039.shtml](https://www.guancha.cn/international/2018_07_13_464039.shtml)> accessed August 2018  
As the news states, China consumes 72 percent of the world's plastic waste. In 2017, more than half of US waste was exported to China.

<sup>770</sup> Wentao Wang, '环境正义视界域下洋垃圾禁令的思考' [Reflections on the Ban of Foreign Waste from the Perspective of Environmental Justice] (2018) 9 (2) Environment and Development 3

<sup>771</sup> Ibid

<sup>772</sup> Ibid

<sup>773</sup> Jing Zhao, '论固体废物污染越境转移法律法规的完善-从我国的洋垃圾问题谈起' [Theory of Perfection of Laws and Regulations of transboundary Movement of Solid Waste - From the Oversea Waste of China] (2006) 21 (1) Guangzhou Environmental Sciences 25



and other wastes into China by importing industrial raw materials and equipment.<sup>774</sup> In addition, if those criminals are domestic enterprises, they could obtain subsidies and import and export tax rebates.<sup>775</sup>

### 5.2.2.1 Principles of Environmental Legislation on Waste

The environmental legislation regime in China is based on three principles: the principle of prevention, the polluter pays principle, and control through regulations.<sup>776</sup> Prevention first, as a principle, requires that individuals and entities protect their environment by preventing pollution where feasible rather than dealing with its impacts.<sup>777</sup> The polluter pays principle provides that the liability for dealing with any damage and the cost of preventing pollution and paying compensation shall be borne by the polluting entity, not by states and injured parties.<sup>778</sup> Lastly, the principle of control through regulations requires that local governments lawfully manage the environment within their jurisdiction and ensure its protection.<sup>779</sup>

Because of the political structure of the state, environmental laws in China have been deemed ambiguous.<sup>780</sup> The State Council, national agencies, and local governments were allowed to add details that influence the implementation of environmental laws.<sup>781</sup> Typically, national environmental laws are passed by the National People's Congress (NPC), and the State Council issues administrative edicts for particular

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<sup>774</sup> Ibid

<sup>775</sup> There was a typical transboundary Chromium waste pollution case in Yunnan province in 2011; Chromium Waste in China (EDLC, 2012) <<https://www.edlc.org/cases/tackling-new-threats/chromium-waste-in-china-a-toxic-time-bomb/>> accessed October 2018

<sup>776</sup> Charles McElwee, *Environmental Law in China: Mitigating Risk and Ensuring Compliance* (Oxford University 2011) 45-49

<sup>777</sup> A good example of the principle of prevention first is the PRC Clean Production Law 2007.

<sup>778</sup> McElwee (n 776) 254-258

<sup>779</sup> Ibid

<sup>780</sup> Xiaoying Ma and Leonard Ortolano, *Environmental Regulation in China, Institutions, Enforcement and Compliance* (Rowman & Littlefield Publishers Inc 2000) 13-15

<sup>781</sup> In accordance with their local needs

The National People's Congress (NPC) is the top legislative body in China, and the State Council is the leading administration system. Both are deeply influenced by the Chinese Communist Party.

implementation needs. Administrative regulations have the force of law and can be enacted by the State Council and/or its agencies.<sup>782</sup> Besides the administrative regulations (Fagui), many instruments, such as 'measures', 'notifications', and other documents, are usually issued to clarify a law.<sup>783</sup>

Generally, the environmental law system in China is divided into ten parts. These are: (1) constitutional law, (2) fundamental environmental law, (3) specialised environmental law, (4) environmental administrative regulations, (5) departmental rules, (6) local regulations, (7) local governmental rules, (8) environmental standards, (9) criminal law, and (10) international environmental protection treaties.<sup>784</sup>

First, the Constitutional Law is the fundamental law of the Chinese law system, and Article 26 sets out the principle of environmental protection.<sup>785</sup> Secondly, the Environmental Protection Law is regarded by some as the basic environmental law in China. However, its status is not settled in China, the cornerstone of environmental protection legislation.<sup>786</sup> It sets out the scope of environmental law in China, including measures for the prevention and control of environmental pollution,<sup>787</sup> protection of the ecology<sup>788</sup> and natural resources,<sup>789</sup> and the recycling of

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<sup>782</sup> Ma (n 780) 17

<sup>783</sup> For example, rules (guizhang); orders (mingling), provisional measures (zhanxing banfa), measures (banfa), decisions (jueding), resolutions (jueyi), directives (zhishi), notification (tongzhi) and administrative circulars (tongbao), such acts were used in implementation environmental programs

<sup>784</sup> Xisheng Huang and Yucheng Shi, '中国环境法律体系的构架与完善' [The Structure and Perfection of China Environmental Legal System] (2014) 1 Contemporary Law Review 120

<sup>785</sup> PRC Constitution Law 1954, Article 26 states: '*The State protects and improves the environment in which people live and the ecological environment. It prevents and controls pollution and other public hazards.*'

<sup>786</sup> About the status of EPL, there are many works of literature state that the EPL is the basic environmental law, e.g. Mingming Liu, '改革开放 40 年中国环境执法的发展' [The Development of Environmental Law Enforcement in China in the Past Forty Years of Reform and Opening-Up] (2018) 6 (5) JiangHuai Forum 27 However, there are also other voices that do not support this status. It does not have the formal status of a basic law in China

<sup>787</sup> For example, PRC Law on the Prevention and Control of Water Pollution 1984; Solid Waste Law (n 756)

<sup>788</sup> For example, PRC Grassland Law 1985;

PRC Fisheries Law 1986

<sup>789</sup> For example, PRC Water and Soil Conservation Law 1991;

resources.<sup>790</sup> These issues are covered by the different environmental laws and regulations.

China made national laws and regulations to control hazardous and other wastes in the 1990s, an era that saw the formulation of the first edition of the Environmental Protection Law.<sup>791</sup> The Environmental Protection Law (EPL) of the PRC was issued in 1989, including seven chapters, which are General Provisions, Supervision and Administration, Environmental Protection and Improvement, Prevention and Control of Pollution and Other Public Nuisances, Information Disclosure and Public Engagement, Legal Liability, and Supplementary Provision.<sup>792</sup>

The EPL was revised and adopted at the eighth session of the Standing Committee of the Twelfth National People's Congress (NPC) of the PRC and came into force on 1 January 2015. After the revision, the EPL, as administrative legislation, contains significant improvements regarding enforcement, which will be discussed below under 'environmental enforcement legislation.'<sup>793</sup> Most provisions dealing with waste in the EPL deal with domestic waste.<sup>794</sup> However, Article 51 makes some specific provisions for hazardous waste:

*The people's governments at all levels shall coordinate the urban and rural building of sewage treatment facilities and support networks, the collection, transportation, and disposal equipment for solid wastes, the centralised treatment facilities and sites for hazardous wastes, and*

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PRC Prevention and Control of Desertification Law 2001

<sup>790</sup> For example, PRC Promotion of Cleaner Production Law 2002;

PRC Circular Economy Promotion Law 2008;

See also Yang Liu, '我国环境法律体系的架构与完善' [The Framework and Perfection of Environmental Law System in China] (2015) 3 Legal System and Society 16

<sup>791</sup> PRC Environmental Protection Law 1989, Chapter IV is the prevention and control of environmental pollution, including the control of waste and hazardous waste under Articles 24 and 33;

See also PRC Environmental Protection Law (2014 amendment)

<sup>792</sup> The EPL 1989 consists of six chapters and a totally of forty-seven articles

<sup>793</sup> See this Chapter below

<sup>794</sup> EPL 1989 (n 791) Article 37 and 38, Chapter III Environmental Protection and Improvement

*other public facilities for environmental protection, and ensure the normal running thereof.*<sup>795</sup>

However, this Article makes no provision for imports or exports.

Besides the basic environmental law, the most significant waste law in China is the Law of PRC on the Prevention of Environmental Pollution Caused by Solid Waste (Solid Waste Law).<sup>796</sup> It contains a specific chapter stipulating the rules on hazardous wastes, which states: *'It shall be forbidden to transfer hazardous waste via the territory of the People's Republic of China.'*<sup>797</sup> It is worth stating that the definition of hazardous wastes in China is not the same as the definition in the Basel Convention. There is no specific definition of 'hazardous waste' in China. According to the Solid Waste Law, the Ecology and Environment Department of the State Council shall formulate a national list of hazardous wastes and lay down unified criteria and methods for identifying hazardous waste, distinguishing marks, and requirements for the administration of identification entities. The national list of hazardous wastes shall be adjusted dynamically.<sup>798</sup> It can be seen that hazardous waste in China is not considered by definition but classified by national list.<sup>799</sup>

In accordance with the Law of the PRC on the Prevention of Environmental Pollution Caused by Solid Waste ('Solid Waste Law'), the National Catalogue of Hazardous Waste was formulated in 2016.<sup>800</sup> According to the definition in the Solid Waste Law, 'hazardous waste means waste that is dangerous and is included in the

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<sup>795</sup> Ibid Article 51, Chapter IV Prevention and Control and Pollution and Other Public Nuisances

<sup>796</sup> Solid Waste Law (n 756)

<sup>797</sup> Ibid Article 75

<sup>798</sup> Weichun Chen, '论危险废物的定义与功能' [On the Definition and Function of Hazardous Waste] (2011) 6 (5) Journal of North China Electric Power University (Social Sciences) 17

<sup>799</sup> UNEP, Basel Convention Country fact Sheet-China UNEP-CHW-CFS-China-1

<sup>800</sup> PRC National Catalogue of Hazardous Waste 2016

The Ministry of Environmental Protection issued this a National Catalogue of Hazardous Waste, effective 1/August 2016. The National Catalogue of Hazardous Wastes (issued by the National Environmental Protection Agency, No.1, 2008) has been abolished.

national list of hazardous waste or identified as such according to the criteria and methods of identification for hazardous waste as prescribed by the State'.<sup>801</sup> This new catalogue lists 46 types of hazardous waste, compared to 49 in the old catalogue (2008 edition).<sup>802</sup> Moreover, the Hazardous Waste Identification Standard also defines hazardous waste as waste containing one or more hazardous properties, such as corrosive, acute toxicity, leaching toxicity, reactivity, infectivity, or radioactivity.<sup>803</sup>

Specifically, waste import and export legislation, such as EPL and Solid Waste Law, matches the principles of the Basel Convention. Under this legislation, the first principle is to prevent pollution that could be caused by the importation of waste and to protect the domestic environment and human health. The second principle is to utilise imported recyclable wastes and meet the demand for raw materials. The last principle is that exports of hazardous waste must fulfil the requirements of the Basel Convention based on prior notification procedures and the destination.<sup>804</sup>

### **5.2.2.2 Environmental Regulatory Framework through Legislation in China**

In 2018, during the first session of the Thirteenth National People's Congress, the State Council passed the 'State Council Institutional Reform Plan',<sup>805</sup> which integrated the responsibilities of the former Ministry of Environmental Protection, Ministry of Land and Resources,<sup>806</sup> State Oceanic Administration,<sup>807</sup> National Development and Reform Commission,<sup>808</sup> Ministry of Water Resources,<sup>809</sup> Ministry

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<sup>801</sup> Solid Waste Law (n 756) Article 74 s 4

<sup>802</sup> National Catalogue of Hazardous Waste (n 800)

<sup>803</sup> PRC Identification Standards for Hazardous Waste 2007

<sup>804</sup> McElwee (n 776)

<sup>805</sup> PRC Institutional Reform Plan of the State Council

<sup>806</sup> Ministry of Land and Resources (国土资源局)

<sup>807</sup> State Oceanic Administration (国家海洋局)

<sup>808</sup> National Development and Reform Commission (国家发展改革委员会)

<sup>809</sup> Ministry of Water Resources (水利部)

of Agriculture,<sup>810</sup> and other relevant departments to establish the Ministry of Ecology and Environment as the national authority responsible for environmental protection. Under the Ministry of Ecology and Environment, there are various entities, including administrative offices, inspection agencies, monitoring stations, and research centres, with the Bureau of Ecology and Environment Enforcement<sup>811</sup> serving as the primary enforcement authority.<sup>812</sup>

EPL also provides a system of public environmental management and supervision.<sup>813</sup> According to the EPL, the environmental protection department under the State Council holds centralised oversight and management of national environmental protection endeavours, while local government bodies at the county level and higher administer unified supervision and management of environmental protection activities within their respective administrative domains. Additionally, relevant departments of local governments at or above the county level, as well as environmental protection units within the military, are mandated by pertinent legislation to oversee and manage environmental protection efforts, including resource preservation and pollution control measures.<sup>814</sup> In addition, China Customs serves as the primary regulatory body overseeing the importing and exporting of goods, and, as such, it also assumes a pivotal role in the inspection, implementation and enforcement of transboundary movement of waste controls.<sup>815</sup> Therefore, besides the central authority - the Ministry of Ecology and Environment (MEE),<sup>816</sup>

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<sup>810</sup> Ministry of Agriculture (农业部)

<sup>811</sup> Ministry of Ecology and Environment of PRC

<[https://english.mee.gov.cn/About\\_MEE/Internal\\_Departments/200910/t20091015\\_162393.shtml](https://english.mee.gov.cn/About_MEE/Internal_Departments/200910/t20091015_162393.shtml)> accessed Feb 2024

<sup>812</sup> ‘生态环境部“三定”规定公布’ [“Three Requirements” issued by the Ministry of Ecology and Environment] (2018) 09 China Recycling 46

<sup>813</sup> Article 10, EPL2014

<sup>814</sup> Ibid

<sup>815</sup> HaiLian Li and Xie Jiang, ‘中国对固体废物跨境流入的政治治理与完善路径’ [Transboundary Inflow of Solid Waste Governance and Improvement Path in China] [2020] 30 China Population, Resources and Environment 11

<sup>816</sup> Please see Chapter 5, 5.3.1

environmental protection departments are established at the provincial, city, and county/district levels, referred to as Environmental Protection Bureaus (EPBs), and local EPBs are required to be accountable to two authorities: the superior EPB and the local government of their respective jurisdiction.<sup>817</sup>

To sum up, The State Council and the MEE exercise unified supervision and management over hazardous waste management nationwide. Additionally, local governments at all levels can supervise and manage hazardous waste sites and transactions within their respective administrative jurisdictions. This includes EPBs at the provincial, municipal, and county levels and other relevant departments such as urban management and market supervision. These entities are responsible for overseeing the planning, construction, operation, and regulation of hazardous waste treatment facilities, as well as supervising and managing hazardous waste trading activities to ensure compliance with relevant laws, regulations, and policies.

### **5.2.2.3 Enforcement of Environmental Legislation, Especially Regarding the Transboundary Movement of Hazardous Wastes**

The extant EPL has more effective enforcement provisions for enforcing environmental regulations than its earlier version.<sup>818</sup> Firstly, the new EPL added a ‘daily penalty’ requirement, that is, a daily and successive fine for persistent environmental violations.<sup>819</sup> Secondly, EPL, as an administrative law, provides the penalty of administrative detention, which is rare in China.<sup>820</sup> In 2015, there were 2709 cases of environmental administrative detention nationwide, including 479 cases in Zhejiang province, 167 cases in Shandong province, 166 cases in Fujian

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<sup>817</sup> Xuehua Zhang, ‘China’s Environmental Administrative Enforcement System’, (2013) 1 (4), ELR China Update 1

<sup>818</sup> The critical enforcement provisions in the EPL2014, including Article 24 (inspection), Article 25 (shutdowns and seizure of equipment), Article 57 (citizen rights to report pollution), Article 58 (public interest litigation) and Chapter VI Legal Liability (from Article 59 to Article 69)

<sup>819</sup> EPL 1989, Article 59

<sup>820</sup> EPL 1989, Article 63

province, and 129 cases in Hebei province; however, there are few cases of environmental administrative detention in Beijing, Hainan, and Xinjiang provinces, which suggests provincial variations in enforcement.<sup>821</sup> Thirdly, legal liability is also extended to institutions enforcing the EPL, such as environmental impact assessment agencies, environment monitoring authorities, and institutions engaged in the operation and maintenance of monitoring equipment and pollution prevention and control facilities.<sup>822</sup> In addition to the environmental legislative framework, many provisions on environmental protection exist in non-environmental legislation, which contains penalties for failure to comply with environmental regulations and policies.<sup>823</sup>

Firstly, the Criminal Law of 1997 penalises smuggling, which includes importing solid wastes in a manner that avoids detection by customs.<sup>824</sup> Specifically, Section 6 of Chapter VI of the Criminal Law provides for environmental crimes, which include environmental pollution, illegal disposal of imported solid wastes, and illegal importation of solid wastes.<sup>825</sup> Various amendments to the Criminal Law have updated its provisions. For example, amendment IV added two paragraphs for the transport of waste,<sup>826</sup> amendment VIII altered the crime of causing a major environmental pollution accident to the crime of causing severe environmental

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<sup>821</sup> Wang (n 770) 142

<sup>822</sup> EPL 1989 Article 65

<sup>823</sup> Wang (n 770) 147

<sup>824</sup> PRC Criminal Law 1979, Article 155 s 3

<sup>825</sup> Ibid Chapter IV s 6

<sup>826</sup> PRC Criminal Law (2002 amendment) Article 155(2): *'Whoever, evading Customs supervision and control, transports solid waste, liquid waste or gaseous waste from outside China into the territory of China, if the circumstances are serious, shall be sentenced to fixed-term imprisonment of not more than five years and shall in addition, or shall only, be fined; if the circumstances are especially serious, he shall be sentenced to fixed-term imprisonment of not less than five years and shall in addition be fined.'*

See also:

Article 339 (3): *'Whoever, under the pretext of using it as raw material, imports solid waste, liquid waste or gaseous waste that cannot be used as such shall be convicted and punished in accordance with the provisions of the second and the third paragraph of Article 152 of this Law'*



pollution.<sup>827</sup> Furthermore, the interpretation of environmental crime issued by the Supreme People's Court and the Supreme People's Procuratorate explained that Articles 338 and 339 are relevant to transboundary pollution caused by waste and hazardous waste.<sup>828</sup>

In addition to criminal liability, the EPL established the general principle of civil liability.<sup>829</sup> From 2007 to 2017, the Supreme People's Court published ten typical criminal, administrative, and civil liability cases.<sup>830</sup> Besides, civil law provides for civil liability when those who violate environmental protection regulations cause damage to others.<sup>831</sup> In addition, property law provides that those holding the right to use real property may not, in violation of the laws of the provinces, release polluted air, water, or solid wastes.<sup>832</sup>

Although criminal and civil liability could be effective tools to enforce environmental regulations, administrative enforcement was more often applied in

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<sup>827</sup> PRC Criminal Law (2011 amendment) Article 338: *'Whoever, in violation of State provisions, discharges, dumps or disposes of radioactive waste, waste containing pathogen of infectious diseases, toxic substances or other hazardous waste, thus causing serious environmental pollution accident which leads to the serious consequences of heavy losses of public or private property or human casualties, shall be sentenced to fixed-term imprisonment of not more than three years or criminal detention and shall also, or shall only, be fined; if the consequences are especially serious, he shall be sentenced to fixed-term imprisonment of not less than three years but not more than seven years and shall also be fined.'*

<sup>828</sup> See the footnotes above here about the Articles 338 and 339 of the Criminal Law 1979. Article 15 of Interpretation by the Supreme People's Court and the Supreme People's Procuratorate of Several Issues Concerning the Application of Law in Handling Criminal Cases of Environmental Pollution provided that criteria for the identification of toxic substances and hazardous wastes; see also: PRC Interpretation by the Supreme People's Court and the Supreme People's Procuratorate of Several Issues Concerning the Application of Law in Handling Criminal Cases of Environmental Pollution, 2016

<sup>829</sup> EPL 1989 Article 41

<sup>830</sup> 'Typical Cases of Criminal, Civil and Administrative Cases of Environmental Resources', (The Supreme Court of the People's Republic of China 22 June 2017) <<http://www.court.gov.cn/zixun-xiangqing-48792.html>> accessed 20 February 2019

<sup>831</sup> PRC Civil Law 1986, Article 124

In addition to environmental damage civil liability, Article 134 stipulated the ten main methods of bearing civil liability

<sup>832</sup> PRC Property Law 2007 Article 90

cases of environmental violations.<sup>833</sup> The general procedures are set out in the Administrative Penalties Law.<sup>834</sup> There is a specific administrative enforcement regulation regarding environmental protection.<sup>835</sup>

As noted above, China Customs serves as the primary regulatory body for the inspection, implementation, and enforcement of transboundary movement of waste controls.<sup>836</sup> According to the Solid Waste Law, importing solid waste or waste from abroad which is dumped, piled up or treated within the territory, the transfer of hazardous waste via the territory, illegally imported waste, such waste should be ordered by the Customs to be returned to its place of origin. It will lead to the imposition of a penalty.<sup>837</sup> Customs Law also requires that Customs confiscate prohibited, restricted and smuggled goods under the law and impose a fine.<sup>838</sup> Since the year of 2012, the Chinese Customs, in collaboration with other authorities such as the Ministry of Ecology and Environment, has initiated several enforcement actions targeting the smuggling of solid waste and the importation of 'wastes', including 'Blue Sky Action',<sup>839</sup> and 'Operation Gatekeeper'<sup>840</sup>.

Under the former EPL, a new Environmental Impact Assessment Law was issued in 2002. It contained relevant measures for managing hazardous wastes and their movement, including 1) identification and analysis of potential environmental impacts, 2) possible measures to prevent or control the identified impact, and 3)

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<sup>833</sup> Wang (n 770)

<sup>834</sup> PRC Administrative Penalty Law 1996, with the first amendment in 2009, and the second revised and adopted in 2017, came into force on 1 January 2018

<sup>835</sup> PRC Measures for Environmental Administrative Punishment (2010 amendment)

<sup>836</sup> Li (n 815)

<sup>837</sup> Solid Waste Law 1995 (n 756) Articles 115, 116 and 117

<sup>838</sup> PRC Customs Law 1987 (2017 amendment) Article 82

<sup>839</sup> '海关总署开展“蓝天 2018 行动”专项打击“洋垃圾”' [The General Administration of Customs Launched the 'Blue Sky 2018 Action', Specifically aimed at Combating the Smuggling of 'Importing Waste'] [2018] China Environment Supervision

<sup>840</sup> "'国门利剑 2017"指向洋垃圾' [Operation 2017 Targeting Importing Waste] (18 February 2017)

<[https://www.gov.cn/xinwen/2017-02/08/content\\_5166335.htm](https://www.gov.cn/xinwen/2017-02/08/content_5166335.htm)> accessed February 2024;

See also

Li (n. 815)

assessment of the feasibility and costs of the possible measures.<sup>841</sup> The significant innovation of EIA law requires public authorities to hold public hearings involving parties potentially affected by environmental harm.<sup>842</sup> This is the first time that such provisions were set out in an environmental regulation regime in China.<sup>843</sup>

Under the environmental legislative system in China, many administrative regulations, departmental rules, local environment agency regulations, and local government rules have been set for a range of issues, including hazardous waste management.<sup>844</sup> Local legislation and regulations also provide rules to control the transboundary movement of hazardous wastes between provinces, autonomous regions, or municipalities directly under the central government.<sup>845</sup> In addition, medical waste and e-waste are specific hazardous waste streams which are subject to special controls.<sup>846</sup>

Finally, the legislation on the transboundary movement of hazardous wastes shows that the newest significant waste management policy prohibits the import of waste from 2018.<sup>847</sup> This policy required updating relevant regulations, such as the Administrative Measures for the Import of Solid Waste, which provided for reducing

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<sup>841</sup> OECD, 'Environmental Compliance and Enforcement in China: An Assessment of Current Practices and Ways Forward', (Draft Presentation at Second Meeting of the Asia Environmental Compliance and Enforcement Networks, 2006) <<https://www.oecd.org/env/outreach/37867511.pdf>> accessed February 2019

<sup>842</sup> PRC Environmental Impact Assessment Law (EIA Law) 2002 Article 21

<sup>843</sup> OECD (n 841)

<sup>844</sup> The typical one is: PRC The Administrative Measures for Import of Solid Waste (expired) 2011 'Waste Management Policies and Practice in China', (Regional Workshop of the Greater Mekong Sub-region to share the lessons learnt from Vietnam experience on the National Strategy of Integrated Solid Waste Management, 29 July 2010)

<sup>845</sup> See Solid Waste 1995 (n756) Article 23 and Article 59;

Some examples of local legislation on solid waste including:

PRC Regulations on the Prevention and Control of Environmental Pollution by Solid Waste in Guangdong Province 2004, Articles 21 and 22 provide the rules for transboundary disposal of hazardous waste

<sup>846</sup> PRC Measures for Medical Wastes Management of Medical and Health Institutions 2003;

PRC Regulation on the Administration of the Recovery and Disposal of Waste Electrical and Electronic Products 2019

<sup>847</sup> PRC Implementation Plan of Prohibiting Import Waste to Promoting the Reform of the Importing Solid Waste Management System, issued by General Office of Stated Council 2017

the importation of solid waste and improving the import license system.<sup>848</sup> In addition, this policy requires a continued crackdown on the smuggling of imported wastes, strengthening import inspection and enforcement supervision, and establishing enhanced international cooperation.<sup>849</sup> This has significant implications, as it perhaps makes enforcement easier because there is a presumption that anything imported that is not a new material is an illegal waste import. This suggests a more significant role for transboundary networks in effectively countering illegal waste trade.<sup>850</sup>

Additionally, the Chinese government established regulatory and economic instruments of environmental policy to improve compliance and enforcement.<sup>851</sup> Firstly, there are two national standards established by the State Environmental Protection Administration: environmental quality standards<sup>852</sup> and discharge/emission standards.<sup>853</sup> These two standards can be seen as a ‘compliance policy’ programme seeking to promote compliance with environmental standards and emission standards at the same time.<sup>854</sup> Secondly, according to the Water Pollution Prevention and Control Law and the Atmospheric Pollution Prevention Law, the State Council shall formulate specific measures and procedures for discharge permits.<sup>855</sup> Thirdly, the system of ‘three synchronisations’ (3S) stipulated in the EPL requires that the design, construction and operation of facilities for preventing and controlling pollution be prioritised for all new industrial enterprises being

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<sup>848</sup> Ibid

<sup>849</sup> Ibid

<sup>850</sup> Ibid

<sup>851</sup> ‘生态环境部全国工商联关于支持服务民营企业绿色发展的意见’ [Opinions of the All-China Federation of Industry and Commerce of the Ministry of Ecology and Environment on Supporting and Serving the Green Development of Private Enterprises] (2019) 6 MEE

<sup>852</sup> For example, PRC the Ambient Air Quality Standard 2012

<sup>853</sup> For example, PRC Integrated Wastewater Discharge Standards 1996

<sup>854</sup> OECD (n 841)

<sup>855</sup> Water Pollution Law (n 787) Article 20

PRC Atmospheric Pollution Prevention and Control Law (2015 amendment) Article 19

constructed.<sup>856</sup> Lastly, the EPL states: '*Construction projects without environmental impact assessment developed in accordance with the law shall not commence to construct.*'<sup>857</sup>

### **5.2.3 Introduction of Environmental Legislation on the Transboundary Movement of Hazardous Waste in the UK**

The UK consists of four countries: England, Scotland, Wales, and Northern Ireland.<sup>858</sup> Many laws and regulations are not applicable in all four countries.<sup>859</sup> This section concerns the relevant environmental legislation, institutions, and enforcement mechanisms in the UK. Just as there is a wide range of legislation on transfrontier waste shipment in the UK, different institutions are responsible for administering and enforcing it.

#### **5.2.3.1 Environmental Legislation on Wastes**

Legislation in the UK differs considerably from that in China. First, as there is no written constitution in the UK, there is no constitutional provision on environmental protection. Secondly, there is no basic law like the EPL in China that sets out the principles on which environmental laws in the UK are based. Principles are more commonly set out in policy documents in the UK.<sup>860</sup> Thirdly, nothing comparable to the role and impact of EU Law on UK laws in relation to China exists.<sup>861</sup> Finally, understanding Chinese environmental legislation often depends on referring to other legislation, such as the criminal code or the administrative law. However, UK legislation tends to be much more self-contained, with clear internal provisions, for

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<sup>856</sup> EPL 1989 Article 26

<sup>857</sup> EPL1989 Article 19

<sup>858</sup> 'Countries within a Country' (Prime Minister's Office, 10 January 2003)

<sup>859</sup> For example, The Waste (England and Wales) Regulations 2011, SI 2011/988

<sup>860</sup> For example, 'Draft Environmental Principles Policy Statement, Department for Environment Food & Rural Affairs' <<https://www.gov.uk/government/publications/environmental-principles-policy-statement/draft-environmental-principles-policy-statement>> accessed 20 November 2022

<sup>861</sup> See further discussion- the impact of Brexit is dealt with below.

example, on criminal penalties or administrative appeals against regulatory decisions.

In addition to international environmental law, which influences UK legislation, the UK is a member of the EU, and its legislative framework is largely derived from European Community laws.<sup>862</sup> The UK adopted the attitude that '*European Community (EC) law is domestic law in the sense that it cannot be ignored even though it does not always give rise to enforceable obligations and remedies.*'<sup>863</sup>

Aside from the EU treaties, which are basic rules establishing and governing the EU institutions and setting out the EU's competencies, including its power to legislate on environmental matters, EU legislation falls into three types: Regulations, Directives, and Decisions.<sup>864</sup> Regulations are the most powerful form of EU law and are applicable and enforceable in all EU member states without the need to implement legislation.<sup>865</sup> Directives are not immediately applicable but still binding as to their objectives, and so require implementing legislation.<sup>866</sup> EU environmental laws usually take the form of directives and are generally implemented by UK primary or secondary legislation.<sup>867</sup>

There are a number of legislative instruments regarding waste shipments.<sup>868</sup> The Basel Convention entered into force for the UK in 1993, via Council Regulation (EEC) NO 259/93 of 1993, on the supervision and control of waste shipments within, into and out of the European Community.<sup>869</sup> OECD Council Decision C (2001)

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<sup>862</sup> S. Suzanne, S. Court, 'Legal System in the UK (England and Wales): Overview General Constitutional Features' [https://uk.practicallaw.thomsonreuters.com/5-636-2498?transitionType=Default&contextData=\(sc.Default\)&firstPage=true](https://uk.practicallaw.thomsonreuters.com/5-636-2498?transitionType=Default&contextData=(sc.Default)&firstPage=true) accessed December 2022.

<sup>863</sup> Bell (n 738) 9

<sup>864</sup> Ibid

<sup>865</sup> Ibid

<sup>866</sup> Ibid

<sup>867</sup> Ibid

<sup>868</sup> DEFRA, 'UK Plan for Shipments of Waste-UK government policy on shipments of waste for disposal to and from the United Kingdom' (September 2021) <[https://assets.publishing.service.gov.uk/media/6140b69f8fa8f503c6403e4b/UK\\_plan\\_shipments\\_waste.pdf](https://assets.publishing.service.gov.uk/media/6140b69f8fa8f503c6403e4b/UK_plan_shipments_waste.pdf)> accessed February 2024

<sup>869</sup> Council Regulation (EEC) No 259/93 of 1 February 1993 on the supervision and control of shipments of waste within, into and out of the European Community [1993] OJ L30

107/Final of the OECD Council concerning the revision of Decision C (92)/Final on the control of transboundary movements of waste destined for recovery operations harmonised lists of waste used in the OECD Decision with those used in the Basel Convention.<sup>870</sup> Moreover, the EU Waste Framework Directive (2008/98/EC) and Hazardous Waste Directive (91/689/EC) provide the legislative definition of waste and hazardous waste and the framework for their collection, disposal, transport and recovery.<sup>871</sup> The common definition of waste was provided in the Waste Framework Directive;<sup>872</sup> there are other waste Directives focused on addressing waste management, particularly hazardous wastes.<sup>873</sup> Decisions are only binding on the person(s) to whom they are addressed, regardless of whether it is an EU member country or an individual company.<sup>874</sup>

The key legislation on hazardous waste trade is the EU Waste Shipment Regulation, which is intended to implement the Basel Convention and is directly applicable in EU member states; it provides that:

*'Although the supervision and control of shipments of waste within a Member State is a matter for that Member State, national systems concerning shipments of waste should take account of the need for coherence with the Community system in order to ensure a high level of*

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<sup>870</sup> Concerning the Revision of Decision Council Decision C (92) 39 Final on the Control of Transboundary Movement of Wastes Destined for Recovery Operations [2001] C (2001)107/Final

<sup>871</sup> 'Waste: Detail Information' <<https://www.gov.uk/guidance/waste-legislation-and-regulations>> accessed 10 March 2017

Waste Framework Directive [2008] (2008/98/EC), revised in 2008 by European Parliament and Council

<sup>872</sup> 'The Definition of Waste-Summary of European Court of Justice Judgments'

<[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/218585/ECJCaseLaw20090209.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/218585/ECJCaseLaw20090209.pdf)> accessed 10 March 2017;

see also Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives (Text with EEA relevance) [2008] OJ L 312

<sup>873</sup> For example, Council Directive 96/59/EC of 16 September 1996 on the disposal of polychlorinated biphenyls and polychlorinated terphenyls (PCB/PCT) [1996] OJ L 243; Council Directive 91/157/EEC of 18 March 1991 on batteries and accumulators containing certain dangerous substances [1991] OJ L 78

<sup>874</sup> N Banasevic and J Hubt and others, 'Commission adopts Decision in the Microsoft Case' (2004) 2 Competition Policy Newsletter 44

*protection of the environment and human health.*<sup>875</sup>

That means national legislation shall establish institutions and set out offences and penalties regarding the breach of waste shipment regulations.<sup>876</sup> The UK implemented these requirements in the Trans-frontier Shipment of Waste Regulations 2007.<sup>877</sup> The Regulations require the designation of competent authorities and the establishment of penalties for illegal traffic of wastes.<sup>878</sup>

In the domain of UK environmental law, there is an increasing focus on the possible effects of Brexit on environmental regulations. After Brexit, the UK government first saved all EU-derived domestic legislation and, second, incorporated all EU legislation that is sources of or upon which domestic legislation relies on the day the UK exits the EU.<sup>879</sup> This was designed to provide legal certainty on exit day and assurance that all EU-derived laws will continue until the UK parliament or the devolved administrations see fit to alter such legislation. Initially, there was no indication from the UK government or any devolved administrations of any intention to do away with or significantly alter EU-derived environmental legislation from exit day.<sup>880</sup> However, with the end of the transition period from the exit day and the candidates in the Conservative leadership election in summer 2022 promising to scrap all EU-derived laws, this period of certainty may end. These campaign statements may be hollow rhetoric, as scrapping the incorporated underlying

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<sup>875</sup> Council Regulation (EC) (n 754) Preamble Recital 13

<sup>876</sup> Maritime and Ehs, 'Shipping Waste and Waste Ships' (Watson Farley & Williams Report, 2018) <<http://www.wfw.com/wp-content/uploads/2018/05/WFWBriefing-Shipping-Waste-And-Waste-Ships.pdf>> accessed May 2019

<sup>877</sup> Ibid;

The Transfrontier Shipment of Waste Regulation 2007, SI 2007/1711

Hong Kong Convention for the Safe and Environmentally Sound Recycling of Ships (adopted 15 May 2009) IMO Doc SR/CONF/45

<sup>878</sup> Ibid;

The Transfrontier Shipment of Waste Regulation (n 877) Article 50 and Article 53

<sup>879</sup> European Union (Withdrawal) Act 2018 s 2-3

<sup>880</sup> For a valuable discussion on the impact of BREXIT on environmental law;

See also Chris Hilson, 'The Impact of Brexit on the Environment: Exploring the Dynamics of a Complex Relationship' (2018) 7 (1) Transnational Environmental Law 89



Directives would render existing environmental legislation incomprehensible and inoperable.<sup>881</sup>

In addition, it is necessary to consider the complexities of devolution and the regulatory tensions after Brexit, especially in Scotland. Following Brexit, UK Withdrawal from the European Union (Continuity) (Scotland) Act 2021<sup>882</sup> (Continuity Law) required the new environmental governance standard, an opportunity to ensure that Scotland's environmental law remains largely aligned with EU Environmental Law.<sup>883</sup> Importantly, Environmental Standards Scotland (ESS) was established under the Continuity Law as an independent environmental regulator. It is tasked with ensuring adherence to environmental laws and regulations and preventing enforcement gaps, particularly now that the EU no longer conducts enforcement in this regard.<sup>884</sup>

Where matters have changed is in relation to the jurisdiction of the Court of Justice of the European Union (CJEU), which has ceased, and the principle of supremacy of EU Law, which has also ended. This will have an impact on the ability of UK citizens, businesses, and NGOs to hold the UK government accountable for failing to implement or apply EU-derived law correctly. However, the UK has created an internal substitute, The Office of Environmental Protection (OEP), which has some powers to consider failures by public authorities to comply with environmental law.<sup>885</sup> It is as yet too early to tell how the OEP is performing in this regard, particularly in comparison with previous EU arrangements. As seen below, litigation regarding the proper implementation of the EU EIA Directives has been a major feature of UK planning and environmental law. The UK courts took a long time to

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<sup>881</sup> Retained EU Law (Revocation and Reform) Act (2023)

<sup>882</sup> UK Withdrawal from the European Union (Continuity Law) (Scotland) Act 2021

<sup>883</sup> Colin T Reid, 'Mapping post-Brexit Environmental Law' (2021) 21 ERA Forum 655-665

<sup>884</sup> Continuity Law 2021 (n 882), Chapter 2 s19

<sup>885</sup> See the Environment Act 2021, Chapter 2 ss 22-47; Chapter 2 is about the Office for Environmental Protection, including the introduction of the OEP, the OEP's scrutiny and advice functions, the OEP's enforcement functions, and other information about the OEP.

apply the appropriate approach to implementing these Directives. It remains to be seen whether the courts throughout the UK will continue to ensure the application of the legislation in line with the evolving jurisprudence of the CJEU. However, clearly, they no longer need to do so. More specifically, regarding the waste law regime, the UK signed the Basel Convention, which means it will continue to be bound by it after BREXIT, so there is less likely to be divergence in relation to the implementation of the Convention.

Furthermore, the UK's environmental law regime includes primary legislation, secondary legislation, guidance, and other rules. Acts of Parliament are primary legislation, such as the Environmental Protection Act 1990 (1990 Act), a Public General Act that provided much of the framework of the environmental law regime in the UK.<sup>886</sup> Part II of the 1990 Act contains core provisions on waste management.<sup>887</sup> Also, the 1990 Act defines waste and waste management.<sup>888</sup> Hazardous waste was referred to as 'special waste' in Sections 62 and 63.<sup>889</sup> In addition, the Environment Act 1995 (1995 Act) sets out the powers and duties of the Environmental Agencies.<sup>890</sup> Moreover, other significant environmental protection statutes exist, such as the Pollution Prevention and Control Act 1999.<sup>891</sup> The Pollution Prevention and Control Act 1999 empowers Ministers to make detailed

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<sup>886</sup> Environmental Protection Act 1990

<sup>887</sup> Ibid, Part II is Waste on Land

<sup>888</sup> Ibid, Part II is the provisions of waste, including the specific section of hazardous waste

<<http://www.legislation.gov.uk/ukpga/1990/43/contents>> and

<<http://www.legislation.gov.uk/ukpga/1990/43/part/II/crossheading/special-waste-and-noncontrolled-waste>>

accessed April 2022

<sup>889</sup> Ibid

<sup>890</sup> For example, the Scottish Environment Protection Agency (SEPA), the Natural Resources Wales (NRW)

<sup>891</sup> Pollution Prevention and Control Act 1999;

Council Directive 96/62/EC of 27 September 1996 on ambient air quality assessment and management [1996] OJ L 296;

Council Directive 2008/1/EC of the European Parliament and of the Council of 15 January 2008 concerning integrated pollution prevention and control (Codified version) (Text with EEA relevance ) [2008] OJ L 24;

Council Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control) (recast) (Text with EEA relevance) [2010] OJ L 334

The Pollution Prevention and Control Act 1999 was developed and enacted to implement the European Directive 96/62/EC, which was replaced by Directive 2008/1/EC, which in turn was replaced by Directive 2010/75/EU.

regulations to implement key EU Directives, especially the Industrial Emissions Directive 2010/75, which sets down pollution prevention and control arrangements for major industrial installations, including a variety of waste management facilities.<sup>892</sup> The UK's environmental law framework, especially regarding hazardous waste management, consists mainly of the 1990 Act, the 1995 Act, and the Prevention and Control Act 1999.

Furthermore, there is extensive secondary legislation on hazardous waste management made by the appropriate Secretary of State or Minister,<sup>893</sup> and some directives made by the EU on the same subject that were directly transposed into secondary legislation.<sup>894</sup> Specifically, the Waste (England and Wales) Regulations 2011<sup>895</sup> and the Hazardous Waste (England and Wales) Regulation<sup>896</sup> are the principal regulations on waste and hazardous waste management. Moreover, UK waste management legislation also includes the Environmental Permitting (England and Wales) Regulations,<sup>897</sup> the Waste Shipment Regulations,<sup>898</sup> Waste Electrical and Electronic Equipment Regulations.<sup>899</sup> There are more regulations relevant to hazardous wastes, such as the Producer Responsibility (Packaging Waste) Regulations 2007,<sup>900</sup> Landfill (England and Wales) Regulations 2002,<sup>901</sup> the End-

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<sup>892</sup> Environmental Permitting (England and Wales) Regulations 2016, SI 2016/1154 (as amended); Pollution Prevention and Control (Scotland) Regulations 2012, SSI 2012/360 (as amended)

<sup>893</sup> For example, the Air Quality Standards Regulations 2010, SI 2010/1001 (as amended)

<sup>894</sup> For example, Environmental Information Regulations 2004 SI 2004/3391 (as amended)

<sup>895</sup> The Waste (England & Wales) Regulations (2011) SI 2011/988 (as amended)

<sup>896</sup> The Hazardous Waste (England & Wales) Regulations (2005) SI2005/894 (as amended), Appendix 6 is to stick control of hazardous waste.

<sup>897</sup> See (n 817); This regulation requires the permitting of waste recovery and disposal operations

<sup>898</sup> 'Waste Shipments - EU rules on the shipment of waste within and beyond EU borders, to protect the environment and public health', <<http://ec.europa.eu/environment/waste/shipments/legis.htm>> accessed 10<sup>th</sup> March 2017;

The Council Regulation (EC) (n 754)

<sup>899</sup> The Waste Electrical and Electrical Equipment Regulation 2013, SI 2013/3113 (as amended)

<sup>900</sup> Producer Responsibility Obligations (Packing Wastes) Regulation 2007, SI 2007/871 (as amended).

<sup>901</sup> The Landfill (England & Wales) Regulation 2002, SI 2002/1559 (as amended); There are equivalent regulations for Scotland

of-life Vehicles (ELVs) Regulations 2003,<sup>902</sup> and the Waste Batteries and Accumulators Regulations 2009.<sup>903</sup> Of these, the Regulation on Shipments of Waste is the key legislation on the transboundary movement of hazardous wastes. This legislation implements the Basel Convention and even goes beyond it by implementing the Basel Ban before the Ban came into force internationally.<sup>904</sup>

What is more, there are national soft laws<sup>905</sup> relevant for waste management that do not have the force of law but serve as guidance for government actions and are generally persuasive in nature, such as the UK Ship Recycling Strategy.<sup>906</sup> There are guidance notes and policy statements that set out detailed procedures on waste management in non-legalistic language, which may also be relevant for interpreting statutory provisions.<sup>907</sup> Such soft laws are not legislation but contribute to the effective implementation and enforcement of international hazardous waste regimes.

Case law is also one of the sources of environmental law in the UK. However, most formal regulations are statutory. Normally, case law can be categorised into three parts: court interpretation of statutory provisions, common law disputes with environmental flavour, and judicial reviews against government and regulatory agencies.<sup>908</sup> However, there is also a distinction between criminal and civil cases. Besides that, CJEU decisions strongly influenced the interpretation of national law as they were binding on UK courts prior to BREXIT.<sup>909</sup>

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<sup>902</sup> The End-of-Vehicles Regulations 2003, SI 2003/2635 (as amended)

<sup>903</sup> The Waste Batteries and Accumulators Regulations 2009, SI 2009/890 (as amended)

<sup>904</sup> Council Regulation (EC) No 1013/2006, Preamble (8) (9) (30).

Maritime and Ehs (n 876)

<sup>905</sup> Some literature also calls such kind of soft law tertiary legislation. However, it is unusual.

<sup>906</sup> UK Ship recycling Strategy (2007);

Article 11 of UK Ship Recycling Strategy is required to meet the provision of EC Regulation on Shipments of Waste and Basel Convention.

Strictly, the UK Ship Recycling Strategy is not legislation but soft law at the national level; it is guidance as a flexible form of regulatory agency policy.

<sup>907</sup> For example, Waste Duty of Care Code of Practice 2018

<sup>908</sup> The Independent Review of Administrative Law 2021

<sup>909</sup> Ibid

Another set of legislation closely related to environmental law is worth mentioning: the Town and Country Planning Acts.<sup>910</sup> Planning authorities are responsible for determining whether development can take place and assessing what would be its impact on the environment. Therefore, all prospective developers must obtain planning permission from the relevant planning authority.<sup>911</sup> Thus, major waste facilities require planning permission and an environmental permit and are likely to be subject to an EIA as part of the planning process.

### **5.2.3.2 Environmental Regulatory Framework through Legislation in the UK**

The management system of environmental policies is devolved in the UK. In contrast to the management system in China, the UK allows England, Scotland, Wales, and Northern Ireland to enact their legislation, leading to increasingly diverse legislative and policy paths.<sup>912</sup>

DEFRA is responsible for formulating environmental policies in England and takes the lead in international negotiations. Other departments, such as the Department for Energy Security and Net Zero, lead to energy supply, energy efficiency and meeting the legally binding commitment to reduce greenhouse emissions to 'net zero' by 2050. The Department for Transport is responsible for reducing pollution by promoting lower-carbon transport and new technology.<sup>913</sup>

Each of the UK's nations has a public body that administers and enforces environmental law, and each is structured slightly differently. The EA is the executive, non-departmental public body for England and regulates major industries and waste, as well as the treatment of some contaminated land, water quality,

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<sup>910</sup> Town and Country Planning Act 1990;

Town and Country Planning (Scotland) Act 1997

<sup>911</sup> D Woolley and others (eds), *Environmental Law* (Oxford University Press, 2000) 637

<sup>912</sup> D Abrahams and T Gillett, *International Comparative Guide- Environment & Climate Change Law 2024* (21<sup>st</sup> edn, Global Legal Group 2024) 1-3

<sup>913</sup> Ibid

flooding, and other environmental issues.<sup>914</sup> The EA's counterparts are the SEPA,<sup>915</sup> NRW,<sup>916</sup> and the Northern Ireland Environment Agency (NIEA).<sup>917</sup>

Local authorities also administer and enforce certain environmental laws, including contaminated land management, regulation of certain smaller industrial activities, and addressing statutory nuisances.<sup>918</sup> Besides, other national agencies are also responsible for enforcing and administering aspects of environmental law, including the Health and Safety Executive (HSE)<sup>919</sup>, the Water Services Regulatory Authority(Ofwat)<sup>920</sup> in England and Wales, Natural England,<sup>921</sup> NatureScot in Scotland,<sup>922</sup> the Department of Agriculture, Environment and Rural Affairs in Northern Ireland,<sup>923</sup> and the Office for Nuclear Regulation<sup>924</sup> in the UK.

It is worth noting that the Environment Act 2021 marked a significant change in how environmental policy is developed in the UK, driven by Brexit. One objective was to establish a framework for creating and modifying environmental law following Brexit.<sup>925</sup> The Government's '25-Years Plan for Environment' in England set out long-term environmental plans and committed to refreshing them every five years.<sup>926</sup> The commitment was enshrined in the Environment Act 2021, and the first review was published in February 2023 as part of the Environmental Improvement Plan

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<sup>914</sup> Environment Agency, <<https://www.gov.uk/government/organisations/environment-agency>> accessed April 2024

<sup>915</sup> SEPA, <<https://www.sepa.org.uk/>, accessed April 2024> accessed April 2024

<sup>916</sup> NRW, < <https://naturalresources.wales/?lang=en>> accessed April 2024

<sup>917</sup> NIEA, <<https://www.daera-ni.gov.uk/northern-ireland-environment-agency>> accessed April 2024

<sup>918</sup> Abrahams (n 912)

<sup>919</sup> HSE, <<https://www.hse.gov.uk/>> accessed April 2024

<sup>920</sup> Ofwat, <<https://www.ofwat.gov.uk/>> accessed April 2024

<sup>921</sup> Natural England, <<https://www.gov.uk/government/organisations/natural-england>> accessed April 2024

<sup>922</sup> NatureScot, <<https://www.nature.scot/>> accessed April 2024

<sup>923</sup> Department of Agriculture, Environment and Rural Affairs, <<https://www.daera-ni.gov.uk/>> accessed April 2024

<sup>924</sup> Office for Nuclear Regulation, <<https://www.onr.org.uk/>> accessed April 2024

<sup>925</sup> Abrahams (n 912)

<sup>926</sup> HM Government, 'A Green Future: Our 25 Year Plan on Improve the Environment' (2018) <[https://assets.publishing.service.gov.uk/media/65fd6fd0a6c0f70011ef9263/CD1.H\\_HM\\_Government\\_A\\_Green\\_Future\\_Our\\_25\\_Year\\_Plan\\_to\\_Improve\\_the\\_Environment.pdf](https://assets.publishing.service.gov.uk/media/65fd6fd0a6c0f70011ef9263/CD1.H_HM_Government_A_Green_Future_Our_25_Year_Plan_to_Improve_the_Environment.pdf)> accessed April 2024

2023.<sup>927</sup>

### 5.2.3.3 Environmental Enforcement Legislation

The UK arguably has a more effective and efficient enforcement system than China.<sup>928</sup> Environmental enforcement legislation is directly exemplified by the Environmental Protection Act 1990 and the Environmental Act 1995.<sup>929</sup>

Traditionally, regulatory bodies in the UK have relied on criminal law to protect the environment, but the civil liability or administrative sanctions regime have been used increasingly.<sup>930</sup> Although the origins of criminal law in the UK were common law. However, virtually all environmental crime has been created by statute. Thus, the definition of 'environmental crime' was proffered by the UK sub-committee on environmental crime (established under the Environmental Audit Committee) as including 'all offences either created by statute or developed under the common law that relate to the environment.'<sup>931</sup> In practice, the most frequently used criminal sanctions are found in the Environmental Protection Act 1990 (as amended) and the Water Resources Act 1991.<sup>932</sup> Overall, civil and administrative enforcement mechanisms are more commonly used than criminal enforcement.<sup>933</sup>

Following Brexit, the OEP was brought into existence by virtue of the Environmental

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<sup>927</sup> HM Government, Environmental Improvement Plan 2023-First revision of the 25 years Environment Plan, (2023) <<https://assets.publishing.service.gov.uk/media/64a6d9c1c531eb000c64fffa/environmental-improvement-plan-2023.pdf>> accessed April 2024

<sup>928</sup> OW Pedersen, 'Environmental Enforcement Undertaking and Possible Implications: Responsive, Smarter or Rent Seeking?' (2013) 76 (2) *The Modern Law Review* 319

<sup>929</sup> There is an Enforcement part under Part I (Integrated Pollution Control and Air Pollution Control by local authorities) of the Environmental Protection Act 1990; Environmental Act 1995

The Environmental Act 1995 set out the duties of Environmental Agencies (discussed in this chapter in UK Legislation), including the agency's enforcement

<sup>930</sup> M Waston, 'The Enforcement of Environmental Law: Civil or Criminal Penalties?' (2005) 17 (1) *Environmental Law and Management* 3

<sup>931</sup> V Mitsilegas, M Fitzmaurice and E Fasoli, 'Fighting Environmental Crime in the UK: A Country Report', (Study in the framework of the EFFACE research project, 2015)

<sup>932</sup> House of Commons Environmental Audit Committee, 'Environmental Crimes and the Courts', Sixth Report of Session 2003–04

<sup>933</sup> Waston (n 830)

Act 2021, and after that, the OEP released its draft strategy and enforcement policy.<sup>934</sup> The Environmental Act 2021 not only established OEP but also set forth new enforcement guidelines.<sup>935</sup>

In addition, the UK, although constituting a union of nations, exhibits variances in legislation and enforcement practice due to political considerations. For example, the Environment Agency Enforcement and Sanction Policy only applies to England.<sup>936</sup> The legislation applies to the Environmental Regulation (Enforcement Measures) (Scotland) Order 2015 in Scotland.<sup>937</sup>

### **5.3 Environmental Institutions Dealing with the Transboundary Movement of Hazardous Wastes**

#### **5.3.1 Environmental Institutions Dealing with the Transboundary Movement of Hazardous Wastes in China**

In China, environmental institutions exist at two levels: the national level and the sub-national level. The highest national body is the National People's Congress (NPC), with the authority to enact all 'basic laws',<sup>938</sup> resolutions and decisions, to supervise their implementation, and to make the necessary amendments to the Constitution.<sup>939</sup> The State Council is the chief executive organ with the authority to enact administrative regulations, while its ministries, commissions and departments are competent to issue administrative rules.<sup>940</sup>

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<sup>934</sup> Environmental Act 2021

<sup>935</sup> Environmental Act 2021, Chapter 2

<sup>936</sup> Environment Agency, 'Environment Agency Enforcement and Sanction Policy' (11 December 2023) <<https://www.gov.uk/government/publications/environment-agency-enforcement-and-sanctions-policy/environment-agency-enforcement-and-sanctions-policy>> accessed February 2024

<sup>937</sup> The Environmental Regulation (Enforcement Measures) (Scotland) 2015, SSI 2015/383

<sup>938</sup> The basic law is not the specific statute law and also not the definition of any laws. However, this term was generally accepted when the law had a fundamental impact.

<sup>939</sup> PRC Constitution Law (n 785) Article 62

<sup>940</sup> C Beyer, 'Environmental Law and Policy in the People's Republic of China' (2006) 5 (1) Chinese Journal of International Law 185



At the central level, the foremost national institution is now the Ministry of Ecology and Environment (MEE), which was previously Ministry of Environment Protection (MEP) and formerly SEPA.<sup>941</sup> Other national institutions, including several Ministries and Agencies of the State Council, manage a range of environment-related issues separately. However, the establishment of MEE has reduced the number of such bodies.<sup>942</sup> Sub-national institutions in China are at the provincial and local levels. The Environmental Protection Bureaus (EPBs) implement environmental regulations and policies in provinces, prefectures/municipals, districts/counties, and townships. There are more than 2000 EPBs at different administrative levels in China.<sup>943</sup>

MEE is the national administrative body that implements and prepares national regulations and policies on issues such as air quality and solid waste.<sup>944</sup> MEE also provides guidance to enforcement staff to investigate non-compliance and take enforcement action.<sup>945</sup> Moreover, MEE is responsible for monitoring environmental quality and facilitating enforcement activities with local environmental authorities.<sup>946</sup>

For implementation and enforcement of relevant hazardous waste regimes, SEPA

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<sup>941</sup> The Ministry of Ecology and Environment of the People's Republic of China is the top environmental authority under the State Council. The first top environmental body, the Environmental Protection Bureau, was established in 1974. It was upgraded to the State Environmental Protection Administration (SEPA) in 1998. SEPA was upgraded to the Ministry of Environmental Protection in 2008. By 2018, the Ministry of Environmental Protection was re-organised as the Ministry of Ecology and Environment (MEE). <http://www.mee.gov.cn>, accessed June 2019.

<sup>942</sup> For example, the Ministry of Water Management, <<http://www.mwr.gov.cn>> accessed June 2019, it is in charge of watershed management, soil erosion, and groundwater quality; The Ministry of Nature Resources, <<http://www.mnr.gov.cn>> accessed June 2019, it is responsible for land use planning, mineral and marine resource management, and land rehabilitation; The State Forestry Administration, <<http://www.forestry.gov.cn>> accessed June 2019, it is in charge of implementing afforestation, forest conservation, biodiversity, and wildlife management

<sup>943</sup> For example, Environmental Protection Bureaus of Hebei Province <<http://www.hebhb.gov.cn>>; Shanghai Environmental Protection Bureaus, <<http://www.sepb.gov.cn/fa/cms/shhj/index.htm>> accessed June 2019

<sup>944</sup> There are twenty-four divisions under the MEE institutional framework, such as the Atmospheric Environment Division and the Solid Waste and Chemical Division.

<sup>945</sup> ZM Lve and YR Wu, '中国环境法治七十年：从历史走向未来' [Seventy Years Environmental Rule of Law in China: From History to the Future] (2019) 29 (5) China Law Review 102

<sup>946</sup> All such information can be found at: <http://www.mee.gov.cn>

established the Bureau of Environmental Inspection (BEI) as an agency under the MEE with the responsibility of investigating and supervising violations of Chinese laws, helping the MEE to formulate policies and requirements for enforcement of environmental regulations, and coordinating resolution of 'transboundary' environmental disputes.<sup>947</sup> In China, there are three key elements of the enforcement strategy aimed at addressing environmental offences: (1) local EPB inspections, (2) joint inspections carried out by the central government and EPBs, and (3) promoting public awareness and involvement in compliance with environmental requirements, through media and NGOs.<sup>948</sup>

EPBs are institutions affiliated with BEIs.<sup>949</sup> Generally, the functions of EPBs in implementing and enforcing environmental regulations and policies are monitoring pollution releases or emissions from industries; overseeing environmental impact assessment; collecting pollution discharge fees; working with the tax department to transfer the pollution discharge fees to environmental protection tax;<sup>950</sup> taking legal action against the firms that do not comply with environmental requirements, and ensuring environmental reporting, education and public environmental awareness.<sup>951</sup> In the environmental law enforcement regime in China, environmental inspection plays a vital role at the local level, and the development and improvement of environmental inspection agencies and inspectors are progressing rapidly.<sup>952</sup>

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<sup>947</sup> There are six BEIs under MEE that implement and enforce laws and regulations.

<sup>948</sup> Thematic Research Group of Environmental Law Enforcement, '国内执法监督体系建设的做法'[Domestic Law Enforcement Supervision System Construction] (2018) China Environmental Supervision 14

<sup>949</sup> For example, there are six EPBs at the provinces level under the South China Inspection Bureau, which are the EPB of Shanghai, the EPB of Anhui Province, the EPB of Jiangsu Province, the EPB of Zhejiang Province, the EPB of Jiangxi Province, and the EPB of Fujian Province.

<sup>950</sup> 'Interpretation of Policy of Environmental Protection Tax', (2017)

<<http://www.dl-n-tax.gov.cn/pop/20180730/inner02.html>> accessed 19 February 2019

PRC Environmental Protection Tax Law 2016

<sup>951</sup> OECD (n 841)

<sup>952</sup> Thematic Research Group of Environmental Law Enforcement, '我国环境执法监督体系的形成、发展和基本评价' [The Formation, Development and Basic Evaluation of China's Environmental Law Enforcement Inspection System] (2018) China Environmental Supervision 28.

For example, the number of environmental inspectors has increased significantly by around 11.6% from 1997 to 2003. In 2004, there were 3000 environmental inspection agencies with over 50,000 inspectors nationally.<sup>953</sup> Additionally, the number of institutions in charge of environmental inspection increased 24 percent from 2014 to 2016 since the new EPL took effect.<sup>954</sup> This demonstrates a significant increase in inspection capacity in China and would appear to be a positive development.

Environmental inspection is one of the major functions of EPBs, which can issue warning letters, impose fines, or withdraw permits for part or all environmental facilities if non-compliance is established.<sup>955</sup> Certainly, EPBs at different levels have different authorities and responsibilities to impose penalties, but EPBs at the higher levels have wider responsibilities.<sup>956</sup>

Furthermore, there are other administrative units at the central and local government levels with the responsibility of implementing environmental policies, such as the industrial bureaus,<sup>957</sup> which play a significant role in industrial pollution control. In China, industrial enterprises are the primary cause of environmental pollution.<sup>958</sup> Therefore, a number of environmental protection divisions of industrial bureaus provide technical advice and assistance to industrial enterprises regarding pollution control and also assist in dispute settlement between enterprises.<sup>959</sup>

Generally, litigation in court is perceived as the last resort if administrative enforcement is insufficient or fails to address environmental non-compliance.<sup>960</sup> In

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<sup>953</sup> OECD (n 841)

<sup>954</sup> 'Research of Environmental Law Enforcement Officers', (2017)

<<http://www.spccsh.cn/n1939/n1944/n1945/n2300/u1ai145687.html>> accessed 25 February 2019

<sup>955</sup> The EPL sets the conditions for imposing fines in various cases, such as refusing an on-site inspection or exceeding a national or local discharge standard.

<sup>956</sup> For example, city-level EPB can impose a fine of up to CNY 50,000 but only up to CNY 10,000 at the county level.

<sup>957</sup> Thematic Research Group of Environmental Law Enforcement (n. 948)

<sup>958</sup> Wang (n 770)

<sup>959</sup> Ibid

<sup>960</sup> G Wang, '环境执法的制约因素与对策探讨' [Constraints and Countermeasures of Environmental Law Enforcement] (2010) 11 Law and Economics 125

practice, environmental cases involve civil, administrative and criminal litigation.<sup>961</sup> The courts in China consist of four divisions for civil, administrative, criminal and commercial matters.<sup>962</sup> In China, civil liability is a common form of remedy for those seeking injunctions.<sup>963</sup> Such injunctions usually involve an order to stop or/and eliminate pollutants, which may be triggered by a claim for damages rather than an injunction.<sup>964</sup> Most environmental administrative disputes are settled by mediation undertaken by EPBs at various levels.<sup>965</sup> The administrative authorities make the final decision, including the imposition of liability for compensation when mediation fails.<sup>966</sup>

Furthermore, environmental criminal liability is conditioned upon the act causing a 'major environmental pollution accident' that leads to 'serious' consequences, such as public or private property losses or human health injuries.<sup>967</sup> The EPB officials should refer the issues to the local Public Security Bureau (PSB) for investigation, and the police are charged by the prosecutor's office to investigate environmental crime. In practice, EPB cooperates with PSB to strengthen the enforcement, which can use the coercive approach to enhance the deterrent effect of environmental law enforcement, such as forcibly removing illegal equipment and criminal detention of responsible personnel.<sup>968</sup> Environmental authorities are consulted to facilitate the investigation and provide information.<sup>969</sup> Apart from environmental authorities, the customs service also has a role to play in relation to hazardous waste, such as

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<sup>961</sup> YC Shang, '专门环境诉讼在中国的可行性探测' [Discussion on the Feasibility of Special Environmental Litigation Mechanism in China] (2017) 10 Law and Society 24

<sup>962</sup> Ibid

<sup>963</sup> This is generally shown in civil cases, where the typical outcome is a binding mediated agreement.

<sup>964</sup> M Palmer, 'Environmental Policy in the People's Republic of China: The Face of Domestic Law' (1998) 156 The China Quarterly 788

<sup>965</sup> DH Mei, 'Legal Gateways for Environmental Protection in China' (1995) 4 (1) Review of the EC and IEL 22

<sup>966</sup> Beyer (n 940)

<sup>967</sup> Criminal Law 1979, Article 338 & 339

<sup>968</sup> Thematic Research Group of Environmental Law Enforcement (n 948)

<sup>969</sup> The first environmental case took place in 1998. It involved the manager of a pulp and paper company, who was sentenced by the People's Court to two years in prison and a fine of CNY 50,000.

monitoring and inspecting the importation of waste.<sup>970</sup> As stipulated in the Administrative Measure for the Import of Solid Waste, the customs will penalise smugglers of hazardous wastes.<sup>971</sup> It can be found that the joint approach between EPB, PSB, customs, and other inspecting departments is an effective internal network that appears to enhance enforcement. This form of internal network is comparable in a broad sense with the cooperation between SEPA and the Crown Office Procurator Fiscal Service in Scotland, which is considered below.<sup>972</sup>

### **5.3.2 Environmental Institutions Dealing with the Transboundary Movement of Hazardous Wastes in the UK**

Firstly, the central governments in England, Wales, and Scotland have certain overarching functions in their respective jurisdictions. Many issues, such as appeals against refusal of planning permission, are dealt with centrally within the Department for Environmental Food and Rural Affairs (DEFRA).<sup>973</sup> Central government functions include (1) policy development, (2) production of secondary legislation, (3) appeal functions to permit applications and administrative enforcement, and (4) reserve powers to direct the agencies to do (or not to do) things such as grant a permit, include certain conditions.<sup>974</sup> Secondly, local authorities have environmental protection powers regarding air pollution, particularly in England and Wales, noise control, and first-instance town and country planning matters.<sup>975</sup>

Compared to the institutions in China, UK environmental institutions are more decentralised, considering the devolution of powers among the constituent countries.

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<sup>970</sup> PRC Administrative Measure for the Import of Solid Waste, 2011;

Such measures provide the role and responsibility of customs as an enforcement institution to control and manage the import of solid waste

<sup>971</sup> ZW Shi, ‘固体废物进口有新规’ [New Regulations for Import of Solid Waste] (2011) 12 China Customs 39

<sup>972</sup> See Chapter 5, 5.4 below

<sup>973</sup> H Rothstein and J Downer, ‘Renewing DEFRA: Exploring the Emergence of Risk-based Policymaking in UK Central Government’ (2012) 90 (3) Public Administration 781

<sup>974</sup> Ibid

<sup>975</sup> Ibid

Some relevant bodies include the Environment Agency, Scottish Environmental Protection Agency (SEPA), Natural Resources Wales, Natural England, and Scottish Natural Heritage (SNH). All are independent corporate bodies primarily responsible for pollution control, nature conservation, or both.<sup>976</sup> The UK environmental institutional framework can be divided into three systems: the Environment Agency covers England, NRW covers Wales, and SEPA covers Scotland.<sup>977</sup> The primary pollution control institution in England and Wales is the Environmental Agency (EA), with the primary responsibilities of pollution control, water resource management, industrial pollution regulation, contaminated land management, waste management and producer responsibility, such as packaging waste, waste electrical and electronic equipment (WEEE) and end-of-life vehicles.<sup>978</sup>

The Environmental Act 1995 defined the principal aim of the EA in Section 4. In addition, Section 5 to 9 of Environmental Protection 1995 also set out a range of other duties and objectives of the EA.<sup>979</sup> Under these provisions, the EA shall have regard to guidance issued by the Secretary of State when discharging its functions.<sup>980</sup> The function of investigating environmental crimes is a statutory responsibility of the EA.<sup>981</sup> It is worth noting that the EA particularly investigates illegal activities with respect to waste, water pollution, industrial pollution, and fisheries offences. The EA has an enforcement and investigation structure that enables it to address issues on a

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<sup>976</sup> Bell (n 738) 114-115

<sup>977</sup> Ibid, 112-115.

<sup>978</sup> Environmental Agency, <<https://www.gov.uk/government/organisations/environment-agency>> accessed May 2020

<sup>979</sup> Environmental Act 1995, Chapter I, Section 4 (1): *‘It shall be the principal aim of the Agency (subject to and in accordance with the provisions of this Act or any other enactment and taking into account any likely costs) in discharging its functions so to protect or enhance the environment, taken as a whole, as to make the contribution towards attaining the objective of achieving sustainable development...’*

<sup>980</sup> Ibid, Chapter I, Section 4 (3)

<sup>981</sup> ‘The Environment Agency Roles and Responsibilities’, <<https://rsidb.org.uk/wp-content/uploads/2021/01/earole.pdf>> accessed December 2022

national and international basis. At the local and regional levels, local Environmental Crime Team (ECT) staff take more responsibility for dealing with such illegal activities. Regarding the Basel Convention, the ECT and National Intelligence Team are tasked with policing the illegal export of hazardous waste, including e-waste, sharing intelligence with the police, Her Majesty's Revenue and Customs (HMRC), the Borders Agency, local authorities and key waste sector representatives.

In Scotland, the non-departmental public environmental institution is the Scottish Environment Protection Agency, which is primarily responsible for regulating and investigating environmental pollution.<sup>982</sup> Besides, Scottish Water, Scottish Natural Heritage (SNH) and Drinking Water Quality Regulator are relevant institutional bodies that implement and enforce environmental laws and policies.<sup>983</sup> Although the Environmental Agency, Natural Resources Wales, and SEPA have primary responsibilities for pollution control in England, Wales, and Scotland, respectively, numerous other regulatory bodies oversee specific aspects of pollution control and broader environmental protection.<sup>984</sup>

After Brexit, the new office, OEP, was set up to monitor progress in improving the environment in accordance with the improvement plan and environment targets.<sup>985</sup> Although the OEP's mandate differs from that of a conventional regulatory agency like the Environment Agency, it retains independent enforcement powers.<sup>986</sup> These powers enable the OEP to address instances of non-compliance with environmental legislation effectively.<sup>987</sup>

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<sup>982</sup> For example, SEPA tackles illegal waste management activities, which can cause significant environmental harm, such as unlawful collection, storage, and export of electrical and electronic equipment waste.

<sup>983</sup> Bell (n 738) 120

<sup>984</sup> For example, Sewerage undertakers and some special independent agencies of DEFRA, such as DWI.

<sup>985</sup> Environmental Act 2021, Chapter 2, section 28.

<sup>986</sup> D Wright and K Oldfield, 'The New Watchdog: the Office for Environmental Protection', (6 April 2022) <<https://kennedyslaw.com/en/thought-leadership/article/the-new-watchdog-the-office-for-environmental-protection/>> accessed February 2024

<sup>987</sup> Ibid

In practice, local authorities play a significant role in environmental regulation and undertake a wide range of tasks related to environmental protection.<sup>988</sup> Local authorities have environmental functions in six main areas relevant to waste control and management: town and country planning, public health, noise control, air pollution, particularly in England and Wales, contaminated land, waste collection and disposal, and sustainable development.<sup>989</sup>

Furthermore, NGOs have a long tradition of involvement in different aspects of environmental governance in the UK.<sup>990</sup> Such environmental NGOs play various roles in the administration of environmental law. Specifically, NGOs undertake activities designed to influence decision-makers and ensure favourable change to environmental law and policy.<sup>991</sup> Also, NGOs seek to influence new environmental legislation by campaigning directly.<sup>992</sup> The implementation and enforcement of environmental laws are also significant parts of NGO functions. NGOs in England and Wales might use private prosecution mechanisms to implement and enforce environmental law.<sup>993</sup> This is not a realistic option in Scotland, where private prosecution requires the consent of the Scottish Government's Law Office, the Law Advocate. NGOs also use judicial review actions to challenge government and regulatory agencies regarding implementation and enforcement.<sup>994</sup>

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<sup>988</sup> Bell (n 738) 127-129

<sup>989</sup> Ibid

<sup>990</sup> For example, the Campaign to Protect Rural England, <<https://www.cpre.org.uk>>, it was founded in 1926; Friends of Earth, <<https://foe.org>>, it was founded in 1969.

<sup>991</sup> Bell (n 738) 129-130

<sup>992</sup> A good example is the private member's Bill on the environment regarding the House Waste Recycling Act 2003, which was drafted and promoted by Friends of Earth.

<sup>993</sup> Prosecution of Offenders Act 1985

According to Section 6(1) of the Prosecution of Offenders Act 1985, the general right to bring a private prosecution for any offence, for example, the hasty reduction of feed-in-tariff support for solar photovoltaic energy generation;

*Secretary of State for Energy and Climate Change v Friends of the Earth* [2012] EWCA Civ 28

<sup>994</sup> *Edwards v Environment Agency* [2008] UKHL 22;

NGOs played a role in the Integrated Pollution Prevention and Control Directive (IPPC) Information Exchange. The case of *Inland Revenue Commissioners v National Federation of Self Employed and Small Businesses Ltd* [1982] AC 167



The prosecution bodies are mainly environmental law enforcement institutions because environmental law depends upon criminal law to a large extent in the UK. Firstly, aside from fulfilling appellate functions,<sup>995</sup> the court also determines civil disputes with an environmental flavour and tries cases involving environmental crimes.<sup>996</sup> In England, the EA enforcement and sanction guidance specifies that the sanction of prosecution is available for all criminal offences by law.<sup>997</sup> The prosecution system in Scotland is different from that in England and Wales, where enforcement and prosecution are undertaken by the Crown Office and Procurator Fiscal Service (COPFS), and the final decision is determined outside the Scottish Environment Protection Agency. However, Scotland has had a team of specialist environmental law prosecutors since 2011.<sup>998</sup> In addition, environmental law enforcement in Northern Ireland is not the same as in England, Wales and Scotland. Northern Ireland Environmental Agency is responsible for enforcing environmental law and policy within its jurisdiction.<sup>999</sup>

#### **5.4 Comparative Analysis of Environmental Legislation and Institutions in China and the UK**

This section seeks to compare the environmental legislation and institutions of China and the UK in a manner that reflects the reason for the difference in the level of environmental enforcement in both nations.

First of all, from a legislative perspective, the United Kingdom operates under the

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<sup>995</sup> Appeals from the sheriff are heard by the Court of Session (Inner House) and can be taken to the UK Supreme Court on further appeal.

<sup>996</sup> Bell (n 738) 126

<sup>997</sup> 'Environment Agency Enforcement and Sanction Policy', (Environment Agency Policy Paper) <<https://www.gov.uk/government/publications/environment-agency-enforcement-and-sanctions-policy/environment-agency-enforcement-and-sanctions-policy>> accessed May 2022

<sup>998</sup> SEPA, 'Environmental Crime Protocol', <<https://www.sepa.org.uk/regulations/how-we-regulate/policies/environmental-crime-protocol/>> accessed December 2022

<sup>999</sup> Northern Ireland Environmental Agency, <<https://www.daera-ni.gov.uk/northern-ireland-environment-agency>> accessed December 2022.

common law system, whereas China adheres to the civil law system. UK law encompasses three main forms: common law, case law, and statutory law. Additionally, the European Union (EU) has also significantly influenced UK environmental legislation. Pursuant to the European Communities Act 1972, UK law formerly was required to be compatible with EU law, and in cases of conflict, EU law prevailed. Despite the possibility of legislative changes post-Brexit, environmental laws in the UK continue to adhere to EU environmental law, although this position may change.<sup>1000</sup> There is also a stronger willingness in Scotland to continue that compatibility. Environmental legislation in China follows the principles of the EPL, whereas there is no single statute in the UK setting out over-arching principles but rather a number of major statutes which, prior to Brexit, had to comply with EU law, although that is no longer the case. The legislative framework in China is systematic and unidirectional, meaning all environmental law regimes are under the EPL. No matter the legislation issued as regulation, measures and notification, they all follow the principles of the EPL. On the other hand, the UK's environmental legislative framework is fragmented.<sup>1001</sup> This is because, firstly, the UK is a common law system, and there has been no attempt to codify environmental legislation or create an overarching statute setting out principles. Secondly, the UK operates a system of legislative devolution in its various jurisdictions, which has led to divergent approaches in England, Wales and Scotland.<sup>1002</sup> Apart from the Environment Act and Environmental Protection Act, there exists a considerable body of non-environmental legislation that pertains to environmental protection.<sup>1003</sup> In addition, the UK has a system of devolution in place, which means that the legal framework is slightly different in England, Wales, Scotland, and Northern Ireland.

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<sup>1000</sup> C Jonachim, 'European Union and Chinese Environmental Protection – Some Comparative Element' (2020) <<https://hal.science/hal-03429322/document>> accessed February 2024

<sup>1001</sup> E Scotford, 'Legislation and the Stress of Environmental Problem' (2021) 74 (1) *Current Legal Problems* 299

<sup>1002</sup> UKELA and King's College London, 'The State of UK Environmental Legislation in 2011-2012: Is There a Case for Reform?' (Interim Report, April 2012)

<sup>1003</sup> For example, the Town and Country Planning Act 1990

However, there is a legitimate question about whether the divergences in the UK are more significant than those in China, given the scale of China and the multi-layer governance between the centre, provinces, counties and municipalities. So, while in theory, the Chinese system appears more unified than the UK system, that may not be the case in practice. Whereas in the UK, there may be slightly differing legislative provisions governing a particular issue, there may be many more in China because even though all provinces and the layers of government within those provinces need to follow the EPL and its principles, nonetheless, there is scope for additional local regulations which explains the scope of the EPL as it applies in that province.<sup>1004</sup> Moreover, the UK has more non-statutory laws in the form of case laws, which is a concept that is largely absent in China. However, the Supreme People's Court does issue guidance notes on lines of case law, so it does have some role, but admittedly, it is not so significant.<sup>1005</sup>

Secondly, for historical and political reasons, China is centralised and follows one party's rules. MEE has the central power to enforce environmental law, and EPBs must follow the MEE's instructions. However, as we know, there are differences in the levels of enforcement between more developed and less developed provinces.<sup>1006</sup> That may change as China centralises to a greater extent, but there is no conclusive evidence to support this. The institutional arrangement is different in the UK. England, Wales, Scotland, and Northern Ireland have environmental agencies that are not controlled by a single authority. Although the central government in each jurisdiction retains reserve powers to direct these various agencies, the UK

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<sup>1004</sup> ZD Li, '环境执法在具体执法实践中存在的问题和提高环保执法能力的对策' [Environmental Enforcement in the Specific Practice of Law Enforcement Problems and Improve Environmental Law Enforcement Capacity Measures] (2016) 5 Resources and Environment 212

<sup>1005</sup> The Supreme People's Court issued a Regulation on Case Guidance in 2010, which sets out how courts should consider precedents when deciding cases;

See also

FP Gao, 'China's Guiding Cases System as the Instrument to Improve China's Case Guidance System, Which Includes Both Guiding Cases and Typical Cases' (2017) 45 (3) International Journal of Legal Information 230

<sup>1006</sup> BV Rooij and Q Zhu and others, 'Centralising Trends and Pollution Law Enforcement in China' (2017) 231 The China Quarterly 583

institutional framework would lead to more opportunities for cooperative enforcement by agencies. It is worth noting that there were over-arching limits imposed by the terms of EU Directives when the UK was a member of the EU. That constrained the degree of divergence which was possible.

Thirdly, China and the UK both have strong internal networks for enforcement. As discussed above, enforcement is normally undertaken by the EPB, PSB, and customs. Environmental offences are particularly serious, especially when they deal with hazardous waste transboundary movement cases.<sup>1007</sup> This work form is a kind of internal network, similar to the joint approach between SEPA and the Crown Office Procurator Fiscal Service.<sup>1008</sup> Although China and the UK developed internal networks to enhance enforcement, the UK appears to have stronger external networks in enforcement due to its membership in the EU, facilitating easier cooperation with other EU states. This issue will be discussed in further chapters.

Another key difference is in the area of EIA. In China, EIA approval is almost equivalent to an environmental permit. EPB is the decision-making body. Previously, penalties for proceeding without an EIA or in breach of an EIA were not significant, but the new Chinese Environmental Protection Law increased them significantly. This is in complete contrast to the UK, where EIA is part of land-use planning procedures, such that land-use planning permission might (but need not) be refused if the EIA for a project shows serious impacts that cannot be adequately controlled or mitigated. Local authorities principally deal with land use planning. The EA and Scottish Environmental Protection Agency deal with the entirely separate environmental permits. The next chapter will discuss the issue of EIA enforcement in more detail.

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<sup>1007</sup> See Chapter 5, 5.3.1

<sup>1008</sup> 'Criminal Prosecution in Scotland' <<http://www.environmentlaw.org.uk/rte.asp?id=312>> accessed 14 December 2022

## **5.5 Conclusion**

This chapter has explored the source of national legislation on hazardous waste transboundary movement in China and the UK separately and has discussed the environmental institutions dealing with hazardous waste transboundary movement in the two countries. Significantly, this chapter has established a comparison between China and the UK based on the legislation and institutions.

It has provided the reader with a greater understanding of the national enforcement frameworks in China and the UK, respectively. This provides the reader with a foundation to proceed to the enforcement key themes and how networks can play a role in enforcing and enhancing enforcement. The next chapter considers how the different legislation and institutions influence the three key themes of enforcement in China and the UK.

## **Chapter 6 Three Themes of Environmental Law Enforcement in Practice as They Relate to China and the UK**

### **6.1 Aim and Outline**

Chapter 2 generally discussed environmental law enforcement, including the definition of enforcement and enforcement approaches. The three key themes of environmental law enforcement were identified: the independence of regulators, the capacity of regulators, and deterrence.<sup>1009</sup> Chapter 5 sets out the specific framework for enforcement in the comparator states, China and the UK, examining their institutional and legislative frameworks, the mechanisms available, and the distinctive approaches taken to enforcement in each state.

This chapter focuses on the three key themes identified in Chapter 2 in environmental law enforcement in China and the UK. It aims to explore how these key themes emerge in the UK and Chinese contexts and whether focusing on them would help to improve compliance and enforcement in general and in relation to transboundary shipment of hazardous waste in particular.

The following sections will address each of the critical themes in turn: (1) the independence of regulators, (2) the capacity of regulators, and (3) deterrence. Regarding these issues, the position of China and the UK will be discussed in sequence, and there will be a comparative analysis at the end of each section, which will also address the impact of networks on each of these themes. Given the thesis focus on networks as a means of enhancing enforcement, the discussion of each theme also encompasses the potential of networks to contribute to each theme.

### **6.2 Independence of Regulators**

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<sup>1009</sup> Please see Chapter 2, 2.6 of this thesis above

One condition for strengthening environmental enforcement is collective efforts among institutions and individuals. Improving compliance with environmental law depends on the government exercising public authority based on standards of good governance, which include providing sufficient resources and independence to compliance and enforcement authorities.<sup>1010</sup>

As the discussion of independence showed in Chapter 2, 'independence' here does not mean independence from the government, as regulators are government bodies. What is meant is relative independence or a healthy degree of independence from political influence. This thesis contends that the greater the degree of independence, the more effective relevant enforcement bodies will be. The degree of independence can be assessed by examining: first, the legislative framework governing regulators, which would potentially deal with factors such as how government appoints the boards of regulatory bodies, how it influences them through guidance, how they are financed, whether government can direct them to take actions including enforcement, and whether their decisions can be appealed or reviewed by Government; and, second, how that framework operates in practice.

### **6.2.1 Independence of Regulators in China**

Theoretically, the reasons for establishing independent environmental law enforcement institutions are diverse. Firstly, establishing independent environmental enforcement institutions requires professional enforcement agencies for environmental protection. Secondly, independent institutions mean that the authority and procedure of environmental enforcement should effectively avoid excessive intervention from central and/or local governments. The value of independent enforcement institutions is in the prevention of inappropriate intervention, especially by external government forces, to enable the enforcement agencies to carry out their

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<sup>1010</sup> INECE, *Principles of Environmental Compliance and Enforcement Handbook* (United States Environment Protection Agency, April 2009)

duties in accordance with the provisions and procedures of the law. Thirdly, the independence of enforcement institutions could improve the regulator's motivation to do their work effectively and exercise initiative.<sup>1011</sup>

The independence of regulators involved in the enforcement of environmental law in China includes independent power for regulators, independent regulatory enforcement procedures and independent responsibility of regulators.<sup>1012</sup>

Environmental enforcement institutions should take the edge off the relationship with government leadership and other departments to avoid much interference.<sup>1013</sup>

According to the EPL and other relevant administrative regulations, administrative departments under the State Council are responsible for the supervision and management of environmental protection activities throughout the country, while local governments at or above the county level are responsible for the supervision and management of environmental protection activities within their jurisdiction.<sup>1014</sup>

Currently, according to environmental legislation and from the experience of their enforcement, there are certain characteristics of environmental law enforcement in China. Firstly, enforcement is combined with unified management and specific management, which means the competent department of environmental protection administrative of local governments or above the county level conducts unified inspection and management of environment protection work, while the competent department of local government at or above the county level and environmental department of army conduct supervision and management of resources protection

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<sup>1011</sup> B Hu, '论独立环境监察执法体制与机制的建构' [Construction of System and Mechanism of the Independent Environmental Supervision and Law Enforcement] (2016) 8 (2) China Environmental Management 79

<sup>1012</sup> Ibid

<sup>1013</sup> XY Lu, SR Chen and L Lu, '我国环境执法障碍的成因分析与对策措施' [Analysis of the Cause and Countermeasures of Environmental Law Enforcement Obstacles in China] (2005) 10 (6) Environmental Protection 22

<sup>1014</sup> EPL 2014, Article 10



and pollution prevention and control.<sup>1015</sup> In addition, different authorities<sup>1016</sup> carry out the specific enforcement duty of inspecting and monitoring environmental protection activities in different areas.<sup>1017</sup>

Secondly, the local environmental authorities are under 'dual leadership' in the sense that they are subject to horizontal and vertical management.<sup>1018</sup> Thus, on the one hand, local environment administrative authorities are part of governmental departments, which are under the leadership and supervision of local governments. On the other hand, the environmental administrative authorities are also supervised and guided by the superior environmental authorities.<sup>1019</sup> For example, the county EPB is supervised by the EPB at the city level, and the city EPB is managed by the province EPB.<sup>1020</sup>

Thirdly, environmental law enforcement is decentralised horizontally.<sup>1021</sup> From the perspective of exercising environmental law enforcement powers, these powers are distributed to different administrative authorities. That is, they are not uniformly exercised by one authority.<sup>1022</sup> Taking the original Environmental Protection Law enacted in 1989<sup>1023</sup>, for example, environmental protection authorities have the role

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<sup>1015</sup> Ibid;

HX Bie, '生态文明建设视域下我们政府管理体制创新探析' [Research on the Innovation of China's Environmental Management System in the Respective of Ecological Civilization Construction] (2014) 12 Journal of Zhongzhou 85

<sup>1016</sup> Such as the Forestry Bureau, which carries out the responsibility of forest protection

<sup>1017</sup> EPL1989 established the combined enforcement system; however, the revision of 2014 did not change this system

<sup>1018</sup> Hu (n 1011)

<sup>1019</sup> Please see Chapter 5, 5.3.1, which discusses the management system of EPBs in China

<sup>1020</sup> Ibid

<sup>1021</sup> Ibid

<sup>1022</sup> XL Zhang and J Su, '论我国环境执法协调机制的完善' [On the Improvement of the Coordination Mechanism of Environmental Law Enforcement in China] (2014) 26 (2) Journal of Hunan Police Academy 80

<sup>1023</sup> The EPL has been revised four times: in 2012, June 2013, October 2013, and 2014. The first revision deleted a few controversial articles; the second revision added public interest litigation and referred to the inspection of government; the third revision added environmental tax and public environmental rights; the fourth revision provided that fines can be imposed continuously daily, it improved enforcement powers, and expand the scope of the subject of public interest litigation.

of inspection and monitoring, but local governments have the right to make decisions to eliminate and control pollution within a certain period. The court has the right to compulsory execution.<sup>1024</sup> According to the EPL (revised in 2014), which stated that:

*the enterprises, public institutions and other businesses discharges pollutants in violation of the pollutant discharge standard or of the total emission control index of key pollutants, the environment protection administrative department of the people's governments at and above the county level may order it to take such measures as restraining the production or suspend production for rectification, or may report for approval to the people's government of jurisdiction, and order it to shut down or close if the circumstances are serious.*<sup>1025</sup>

However, such suspension of operation still needs to be approved by the local government.<sup>1026</sup> According to the Law on Administrative Coercion, the coercive enforcement right still belongs to the court in principle and can involve imposing fines, sealing up sites, facilities, and property, removing obstacles, restoring the original state of affairs, and other enforcement approaches.<sup>1027</sup>

There are five levels of authority relating to environmental inspection and enforcement. First, there is the Bureau of Ecological and Environmental Enforcement.<sup>1028</sup> Second, there is the Bureau of Regional Environmental Inspection

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<sup>1024</sup> Thematic Research Group of Environmental Law Enforcement (n 952)

<sup>1025</sup> EPL 1989, Article 60

<sup>1026</sup> Ibid Article 59 and 60

<sup>1027</sup> Hu (n 1011)

PRC Administrative Coercion Law 2011, Article 9 and Article 12.

<sup>1028</sup> 'Bureau of Ecological and Environmental Enforcement',

<[http://english.mee.gov.cn/About\\_MEE/Internal\\_Departments/200910/t20091015\\_162393.shtml](http://english.mee.gov.cn/About_MEE/Internal_Departments/200910/t20091015_162393.shtml)> accessed June 2019

and Enforcement,<sup>1029</sup> Third, there is the General Team of Environmental Enforcement<sup>1030</sup> and two other Environmental Inspection and Enforcement teams.<sup>1031</sup> In practice, there is no explicit boundary between these authorities regarding environmental inspection and enforcement. The inspection team should carry out the required inspection and enforce environmental regulations in breach cases, including imposing administrative penalties, among other steps.<sup>1032</sup>

Chinese environmental authorities engage in law enforcement, monitoring, and inspection.<sup>1033</sup> Environmental law monitoring and inspection are important steps before actual law enforcement. In 2018, the General Office of the State Council issued a Guideline on Deepening the Reform of Comprehensive Administrative Law Enforcement on Ecological Environmental Protection ('Guideline of Enforcement').<sup>1034</sup> The Guideline of Enforcement required that environmental protection departments at the provincial level be responsible for investigating and handling serious environmental violations and managing the inspection and monitoring departments at the city and county levels.<sup>1035</sup> The Guideline of Enforcement indicates that municipal environmental protection bureaus must establish enforcement teams to undertake enforcement measures at city and county levels; it also provides that agencies under enforcement teams may be established for

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<sup>1029</sup> Five regional inspection bureaus were established in East China, South China, West North, West South and East North in 2006. And add the North China centre later.

<sup>1030</sup> This General Team is at the Provincial level; the Chinese name is 环境监察总队

<sup>1031</sup> Hu (n 1011)

Such a department's name changed after the Guideline of Enforcement was issued; it was named an inspection team, inspection detachment and inspection unit at different administration levels. These two teams conduct environmental inspections and enforcement at the city and county levels. The Chinese names are: 市环境执法支队, 县环境执法大队

<sup>1032</sup> WB Zhang, '我国环境行政执法权配置研究' [Study on the Allocation of Environmental Administrative Executive Power in China], (PhD Thesis, Southwest University of Political Science and Law 2017)

<sup>1033</sup> Ibid

<sup>1034</sup> 关于深化生态环境保护综合行政执法改革的指导意见 [Guidelines on Deepening the Reform of Comprehensive Administrative Law Enforcement for Ecological and Environmental Protection] 2018.

<sup>1035</sup> Ibid, Article 5

remote areas.<sup>1036</sup>

According to the Environmental Protection Law, the Environmental Protection Administration authorities responsible for environmental inspection and enforcement can authorise environmental inspection institutions to enforce relevant laws by imposing administrative punishment on violators, including stopping or suspending their business operations.<sup>1037</sup> Environmental inspection institutions in administrative enforcement do not have independent enforcement powers but act as authorised agencies of the environmental protection department. Thus, environmental inspection institutions cannot exercise inspection and enforcement powers without authority granted by administration authorities.<sup>1038</sup>

However, environmental protection authorities have set up various departments for different issues, such as land, marine, agriculture, and water conservation. Each department has administrative enforcement powers, which could result in fragmentation of enforcement and ambiguity of responsibilities.<sup>1039</sup> The definition of ‘environment’ in EPL 2014 is broad,<sup>1040</sup> but the law still required the development of plans for national economic and social development.<sup>1041</sup> Environmental administration authorities enforce laws against surface water pollution, but the authority responsible for enforcing laws on underground water resource pollution needs to be clarified. It may lie with the land department or water conservancy

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<sup>1036</sup> Ibid

<sup>1037</sup> EPL 2014, Article 24 states that: *‘Competent environmental protection administrations of the people’s governments at or above the county level, environmental supervisory institutions entrusted thereof and other departments that are responsible for environmental supervision and administration shall be entitled to carry out on-site inspection of the enterprises, public institutions and other producers and business operators that discharge pollutants...’*

<sup>1038</sup> HS Chen, ‘环保督察制度法制化：定位、困境及其出路’ [Legalization of Environmental Supervision System: Orientation, Dilemma and Solution] (2017) 3 Law Review 179

<sup>1039</sup> See (n 1034), Article 2. S. (1) stated: ‘... integrate environmental protection with the law enforcement functions of land, agriculture, water conservancy, Marine and other relevant departments for pollution prevention and control and ecological protection...’

<sup>1040</sup> EPL 2014, Article 2

<sup>1041</sup> Ibid, Article 13

department.<sup>1042</sup>

In practice, environmental protection authorities have administrative enforcement powers to impose fines and suspend production. While court-based enforcement is immediately compulsory, administrative enforcement may require court orders to make it effective, resulting in a conflict between different departments and authorities on enforcement.<sup>1043</sup> For example, environmental enforcement institutions should submit evidence when an environmental pollution crime is discovered. Gathering evidence to establish whether a transboundary shipment of waste meets the legal definition of hazardous waste may take some time. This delay can result in the time limits specified in the provisions of the relevant procedural law. In this case, the court and the public security organ may decide not to detain or effect punishment on the criminal suspect, which is disadvantageous in combating environmental pollution crimes.<sup>1044</sup>

To improve environmental law enforcement administratively and within the criminal system, maintaining institutional independence as well as fostering close cooperation are required. To this end, the Ministry of Ecology and Environment, the Ministry of Public Security and the Supreme People's Procuratorate jointly issued Measures for Linking Administrative Law Enforcement of Environmental Protection and Criminal Justice, which provided measures for linking up and managing various departments to enable them better to enforce environmental pollution crime cooperatively.<sup>1045</sup>

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<sup>1042</sup> Department of Institutional Administration and Human Resources Management of Ministry of Ecology and Environment of China, '生态环境保护综合执法的职责调整' [Adjustment of Responsibilities of Comprehensive Law Enforcement on Ecological and Environmental Protection], *China Environment News* (14 March 2019)

<sup>1043</sup> HY Zhao, '环境监察执法中的问题及建议探讨' [Discussion of Problems and Suggestions in Environmental Inspection and Enforcement] (2018) 18 *Technology Wind* 9

<sup>1044</sup> J Zhang, '环境监察执法问题研究' [Study on Environmental Inspection of Law Enforcement] (2017) 8 *Journal of Tianjin Normal University* 1

<sup>1045</sup> 环境保护行政执法与司法衔接工作办法 [Measures for Linking Administrative Law Enforcement of Environmental Protection and Criminal Justice] 2017

For example, Article 26 stated: *'If an environmental protection department finds that a criminal offence is obviously suspected of a crime during the administration inspection or enforcement, it shall promptly notify the*

Nonetheless, there is considerable evidence that, in practice, enforcement is politically directed in China, particularly through the 'campaign enforcement' approach whereby a specific level of government directs the relevant agencies to address a particular environmental problem for a defined period.<sup>1046</sup>

There is evidence from the above that there has been an attempt to improve the independence of regulators in China, such as the development of the EPL and the guidelines from the central government. These have helped to reduce the extent of dual horizontal (local) and vertical (central) leadership, and have emphasised the latter to a greater degree. However, challenges remain. Because the source of regulators' funding is primarily from the local government, the local government has power in relation to environmental enforcement. While the EPL has improved the situation, enforcement remains under dual leadership. In addition, horizontal decentralisation of enforcement powers is also a challenge in China and has necessitated collaboration between various agencies. In practice, there is also evidence that the government directs the enforcement activities of agencies to a considerable extent through 'campaign enforcement'. These factors tend to suggest that regulators in China are insufficiently independent. This is explored further in the discussion in section 6.2.3 below.

## **6.2.2 Independence of Regulators in the UK**

The UK is a unitary state but has largely devolved environmental protection powers to the devolved administrations in Scotland, Wales and Northern Ireland.<sup>1047</sup> To

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*public security organ. If the public security organ deems it necessary, it may carry out preliminary investigation according to law. Before the public security organ files a case for investigation, the environmental protection department shall continue to investigate the criminal offence.'*

<sup>1046</sup> NN Liu, W Lo and others, 'Campaign-Style Enforcement and Regulatory Compliance' (2015) 75 (1) Public Administration Review 85;

See also BV Rooij, 'Implementation of Chinese Environmental Law: Regular Enforcement and Political Campaigns' (2006) 37 Development Studies 57

<sup>1047</sup> Scotland Act 1998;

Government of Wales Act 2006

Northern Ireland Act 1998;

make matters manageable for the reader, this thesis principally focuses on the situation in England and Scotland, although some wider illustrative examples are given. In England, the primary environmental decision-making body is the Department for Environment, Food and Rural Affairs (DEFRA) at the apex, with the Environment Agency – an executive non-departmental public body – being the principal regulator concerning pollution control issues.<sup>1048</sup>

The Welsh Assembly Government is responsible for environmental issues in Wales, with Natural Resources Wales as the principal environmental regulatory body. The Scottish Ministers are responsible for environmental issues in Scotland, with the Scottish Environment Protection Agency as the principal regulator. Some localised environmental protection issues remain with local authorities.<sup>1049</sup> Since environmental protection is essentially a devolved function in the UK system, any reference to the central government in this context refers to the relevant central government department in England, Wales, or Scotland rather than a UK department unless this is expressly stated.

At the outset, it is important to examine the legislative framework's provisions. First, the relevant central government is responsible for appointing board members of the regulators (hereafter 'the Agencies')<sup>1050</sup>. However, while they are, in that sense, political appointees, they are required to have expertise in environmental matters,<sup>1051</sup> and their terms of office do not necessarily coincide with those of the central governments that appoint them. Moreover, as non-departmental public bodies, the Agencies also do not enjoy Crown privilege, immunity, or exemption from taxation,

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Other jurisdictions in the UK include the Isle of Man and the various Channel Islands, but these are not considered further because of their very small scale.

<sup>1048</sup> Environment Agency (n 914)

<sup>1049</sup> For example, most contaminated land functions under the Environment Protection Act 1990, Pt IIA and statutory nuisance functions under the Environment Protection Act 1990, Pt III.

<sup>1050</sup> Environment Act 1995, s 1 and Sch 1 (Environment Agency); s 20 and Sch 6 (SEPA). For a general discussion of the Agencies' legislative framework;

M Poustie and S Tromans, *Environmental Protection Legislation 1990-2002*, (4<sup>th</sup> edn, Sweet & Maxwell 2003)

<sup>1051</sup> Environment Act 1995, s 1(4) (Environment Agency) and Sch 6, para 4 (SEPA).

which is relevant to their formal independence and their ability to enforce environmental law against other Crown bodies.<sup>1052</sup> Secondly, the various central governments can influence the agencies through guidance, which they must consider in performing their functions.<sup>1053</sup>

Thirdly, the relevant central government exercises influence through financial controls. The Environment Act 1995 provides three ways for Agencies to raise funds.<sup>1054</sup> First, through charging schemes, subject to government approval, to recover regulatory costs from the regulated businesses.<sup>1055</sup> Second, through grants or loans from the central government;<sup>1056</sup> and, third, by borrowing, with or without the backing of central government guarantees, but subject to Treasury approval and borrowing limits.<sup>1057</sup> This influence is reinforced by legislative obligations relating to account preparation, audit, and reporting to the relevant Parliament to ensure scrutiny.<sup>1058</sup>

Fourthly, the relevant central government has reserve powers to direct the Agencies to do or not do general or specific things in executing their functions.<sup>1059</sup> In addition to this general power in the Environment Act 1995, there are usually specific powers of ministerial direction under the relevant legislative scheme under which the relevant agency operate.<sup>1060</sup> However, enforcement policy is determined by the agencies themselves, and they have developed, reviewed, updated, and published their enforcement policies on several occasions.<sup>1061</sup>

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<sup>1052</sup> Poustie (n 1050) 580-581

<sup>1053</sup> Environment Act 1995 s 4 (Environment Agency) and s 31 (SEPA)

<sup>1054</sup> Ibid, Section 41-50

<sup>1055</sup> Ibid, ss 41-42

<sup>1056</sup> Ibid, s 47

<sup>1057</sup> Ibid, s 48

<sup>1058</sup> Ibid, ss 45-46A and 51

<sup>1059</sup> Ibid, s 40

<sup>1060</sup> For example, Environmental Permitting (England and Wales) Regulations 2016 (n 398)

<sup>1061</sup> SEPA, 'Enforcement Policy' (undated) <<https://www.sepa.org.uk/media/219244/enforcement-policy.pdf>>;



Finally, the relevant ministers in each central government normally perform an appeal function regarding licensing and enforcement activities.<sup>1062</sup> While these functions are often delegated to the Planning Inspectorate in England and Wales or the Directorate of Planning and Environmental Appeals in Scotland, decision-makers still require that central Government policy is followed where applicable.

To some extent, there is decentralised horizontal enforcement in the UK.

Coordination between local governments and agencies still need to be coordinated concerning issues with shared functions, such as contaminated land. There are also (except in Wales, where the functions are combined in Natural Resources Wales) separate nature conservation and pollution prevention regulators. More significantly, an issue which exists in Scotland but not in England or Wales is that SEPA cannot on its prosecutions but must report cases for prosecution to the public prosecution service in Scotland, the COPFS, which in turn has a discretion as to whether or not to prosecute the case.

This situation resulted in COPFS being criticised for not having sufficient expertise in environmental issues and deprioritising environmental cases because of its heavy workload in dealing with more traditional crime. SEPA has also been criticised for improperly preparing the cases sent to COPFS.<sup>1063</sup> However, the situation has improved significantly with (1) enhanced training for SEPA staff, (2) an environmental crime protocol between SEPA and COPFS,<sup>1064</sup> (3) the institution in 2004 of a specialist network of COPFS environmental law prosecutors; and (4) the establishment in 2011 of a specialist Wildlife and Environmental Crime Unit in COPFS, replacing the earlier network, to handle all environmental prosecutions.

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see also, SEPA, 'Guidance on the Use of Enforcement Action (Revised 2021)' <<https://www.sepa.org.uk/media/219242/enforcement-guidance.pdf>> accessed 31 December 2022

<sup>1062</sup> Environmental Permitting (England and Wales) Regulations 2016 (n 398) reg 31 and Sch 6

<sup>1063</sup> C Lovat, 'Regulating IPC in Scotland: A Study of Enforcement Practice' (2004) 16 (1) J. Env. L. 49

<sup>1064</sup> SEPA (n 998)

While this may seem to give the relevant central governments in the UK the opportunity to influence the agencies there, in practice, there is no evidence of ministers' interference in enforcement.<sup>1065</sup> When public expenditures are reduced, less money is available to the regulators, but again, ministers do not determine how the Agencies should allocate their budgets.

As noted in the discussion in Chapter 5 of this thesis,<sup>1066</sup> the environmental legal framework and governance systems in the UK are undergoing gradual adjustments post-Brexit. However, considering the issue of devolution, the systems in England and Scotland also diverge. Post-Brexit, England has established the OEP with certain independent enforcement powers, whereas Scotland has not established a similar body; instead, it has the Environmental Standards Scotland (ESS).<sup>1067</sup>

### **6.2.3 Discussion and Comparative Analysis**

China's environmental governance structure is much more complex than that of the UK. Chinese scholars have noted that enforcement regulators in the UK are more independent than those in China.<sup>1068</sup> This is partly the result of scale but also partly the result of the simultaneous vertical and horizontal management system, which has no counterpart in the UK where the system is vertical. There has been a recent and considerable simplification of top-level environmental regulatory institutions in China, with the MEE consolidating functions from a whole range of other ministries, some of which have been abolished. In addition, there is evidence that China is trying to ensure greater vertical management and less horizontal management of

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<sup>1065</sup> The SEPA Annual Report 2018/19 shows only one standing Direction from the Scottish Ministers regarding accounts dating from 2005 and one direction made during 2018/19 that does not relate to enforcement. SEPA, 'Annual Report and Accounts 2018-2019' <<https://www.sepa.org.uk/media/485101/annual-report-and-accounts-2018-2019.pdf>, pp.89-90> accessed November 2021

<sup>1066</sup> See Chapter 5, 5.3.2. and 5.4

<sup>1067</sup> Ibid

<sup>1068</sup> The Central Complication Office (British Training Member), '英国的环境保护管理体制' [British Environmental Management System] (2007) 02 Administrative Science Forum 9

environmental regulators.<sup>1069</sup> This rebalancing should enhance the relative independence of environmental regulators in China, as there is evidence that local governments have interfered considerably with environmental regulations and their enforcement.<sup>1070</sup> Wang has argued for the creation of detached agencies at the local level to ensure a greater degree of independence.<sup>1071</sup>

By contrast, the UK has developed a vertical management system of agencies by the relevant central government, divorced from local government influence and, hence, relatively independent since the 1990s. Historically, there was much local involvement in regulation, particularly of water pollution and sewage issues in England and Wales and waste management across the UK, where local government operated and regulated waste facilities.<sup>1072</sup> There is also perhaps less political control than is evident in China. Also, in the UK, the regulators develop their enforcement agenda relatively independently, whereas there is evidence that different levels of the Chinese government direct regulators to conduct particular enforcement campaigns.

Financially, Chinese regulators depend on local governments, which is not the case in the UK. In the UK, roughly half of the income comes from the relevant central government and the other half from the Agencies charging for their regulatory services. This is explored to a greater extent in section 6.3 below. Regarding independence, the UK situation is very favourably compared with the financial arrangements for Chinese agencies, where the budget is generally a grant from the local government, so enforcement agencies have relatively less independence from the government.<sup>1073</sup>

Despite the revision of EPL, the problem of decentralised horizontal management in

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<sup>1069</sup> SEPA (n 1061)

<sup>1070</sup> Wang (n 770)

<sup>1071</sup> Ibid

<sup>1072</sup> Poustie (n 1050) 566-573

<sup>1073</sup> See this chapter: Capacity of Regulator in China.

China remains, and although EPL clarified the responsibility to some extent,<sup>1074</sup> it did not clarify the responsibility between the government and environmental authorities. However, the former Ministry of the Environment Protection (now MEE) Measures for Linking Administrative Law Enforcement of Environmental Protection and Criminal Justice, which provides for cooperative enforcement of environmental law,<sup>1075</sup> is important in addressing this issue. Horizontal decentralisation has been less of an issue in the UK, although it was a challenge in Scotland until relatively recently, as explained above in 6.2.2.

Applying Slaughter's typology of networks,<sup>1076</sup> it can be argued that both the UK (regarding the Scottish example of the Protocol providing for cooperation between SEPA and COPFS) and China (regarding the former Ministry of Environment's Measures providing for cooperation between various departments) have recognised the value of enforcement networks in enhancing not just institutional independence through cooperation, but also efficiency. Such cooperation can strengthen independence and serve as a counterweight to horizontal management. As argued below, such enforcement networks also contribute to enhancing the capacity of regulators.

Arguably, information networks – one of Slaughter's three categories of networks – such as the International Network for Environmental Compliance and Enforcement (INECE), in which both Chinese and UK regulators participate, is a way of enhancing independence through the sharing of best practices. An interesting example of this in practice was the November 2013 conference in Brussels hosted by

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<sup>1074</sup> EPL2014, Article 10.

<sup>1075</sup> See (n 1045)

For example, Article 26 *'If an environmental protection department finds that a criminal offence is obviously suspected of a crime during the administration inspection or enforcement, it shall promptly notify the public security organ. If the public security organ deems it necessary, it may carry out preliminary investigation according to law. Before the public security organ files a case for investigation, the environmental protection department shall continue to investigate the criminal offence.'*

<sup>1076</sup> Slaughter (n 109) 52-61

the Flemish High Council of Environmental Enforcement under the auspices of INECE, which resulted in a key publication on networks, including a chapter on China and contributions by regulators from the UK.<sup>1077</sup> This was a major impetus in the evolution of this thesis.

### **6.3 Capacity of Regulators**

The notion of the capacity of environmental regulators, considered broadly, includes issues such as staffing levels, training, funding, and equipment, as well as legislative provisions available to support their functions and whether the cooperation amongst regulators is coordinated.<sup>1078</sup> In other words, for the effective enforcement of environmental laws, the quality of regulators must be adequate, and this refers to the professional knowledge of regulatory personnel and whether they can employ high technology and equipment. Also, there must be enough regulatory personnel to get the work done and adequate legislation that provides sufficient enforcement powers and penalties. Furthermore, if funds are lacking, it will lead to inadequate levels of equipment for taking evidence and assessing it. The effective enforcement of environmental law also cannot often rely on a single environmental authority, department or individual but requires the coordination of a number of relevant authorities<sup>1079</sup> and departments of the various environmental authorities and individual regulators in a department.

#### **6.3.1 Capacity of Regulators in China**

The capacity of regulators to enforce environmental laws is a crucial subject in China. Many scholars have argued that the capacity of regulators is insufficient;

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<sup>1077</sup> M Faure, PD Smedt and A Stas (eds), *Environmental Enforcement Networks: Concepts, Implementation and Effectiveness* (Edward Elgar, 2015)

<sup>1078</sup> D Jones and I Honorato, 'Capacity Building and Collaboration: Enforcement Training to Build Capacity that Ensures Environmental Protection' in G Pink and R White, *Environmental Crime and Collaborative State Intervention* (Palgrave Macmillan 2016) 39-56

<sup>1079</sup> Such as public security authorities, prosecutions

however, it has improved over the years.<sup>1080</sup>

Firstly, the quality of regulators, especially the capacity of regulators at the grassroots level, still needs to improve. As environmental law has developed in China, the legislation is becoming more professional.<sup>1081</sup> Therefore, the requirement for professionalising environmental law enforcement regulators is also rising. However, in practice, many formal regulators lack knowledge and training in environmental law and regulations, which has led to the misapplication of law in the enforcement process.<sup>1082</sup> On the other hand, regulators have insufficient personnel to undertake enforcement work, so in many areas, especially at the county level, there are no professional regulators to participate.

For the purpose of solving the personnel gap, there are many contract employees<sup>1083</sup> and temporary workers employed, including some who are not appropriately educated and cannot meet the basic quality required for regulatory enforcement.<sup>1084</sup> Until 2017, the Ministry of Ecology and Environment had only 311 staff, and the number of staff in the general environmental monitoring and regional inspecting centres was fewer than 1000. At the same time, there were around 6800 staff working in the environment ministry in Canada and over 18000 staff working for the United States Environmental Protection Agency.<sup>1085</sup>

Secondly, regulators' capacity also includes the quality of environmental legislation available to prevent pollution and address environmental offences. Although

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<sup>1080</sup> JW Chang and YD Jiao, '还有多少执法难题亟待破解?' [How Many Enforcement Problems Remain to be Solved?] (2015) 9 *Environmental Economy* 4

<sup>1081</sup> SQ Liu, '加强环境执法人员能力建设的思考' [Thinking of Strengthening the Capacity Building of personnel of Environmental Law Enforcement] (2015) 21 *Anhui Agriculture and Science Bull* 5

<sup>1082</sup> *Ibid*

<sup>1083</sup> Contract employees are not formal staff in the government institutions in China. Formal employees are authorised strength.

<sup>1084</sup> Liu (n 1081)

<sup>1085</sup> YL Zhang and XF Zou, '环境执法中存在的问题及对策浅析' [Analysis of Problems and Countermeasures in Environmental Law Enforcement] (2017) 1 *Chinese Market* 226

available legislation was insufficient initially, it has developed since the first environmental regulations were issued in 1973.<sup>1086</sup> Wang identified that pre-EPL 2014, legislation was unrealistic and did not contain effective enforcement mechanisms.<sup>1087</sup> Some legislation provided rules of conduct, but there was no legal responsibility if they were not complied with.<sup>1088</sup> For example, the Environmental Impact Assessment Law stated that:

Where a construction unit starts construction before submitting the document for evaluation of the environmental effects of a construction project for approval, as is required by law, or before submitting a new document for approval or submitting the document for examination and verification anew, as is required by the provisions of Article 24 of this Law, the competent administrative department for environment protection that has the power to examine and approve the document for evaluation of the environmental effects of the said project shall instruct the construction unit to stop constructing and to go through formalities within a time limit; if it fails to do so at the expiration of the time limit, it may be fined not less than RMB 50,000 yuan but not more than RMB 200,000 yuan, and the persons directly in charge of the construction unit and the other persons directly responsible shall, according to law, be given administrative sanctions<sup>1089</sup>

Such a provision encourages or does not deter non-compliance because there is no immediate penalty for failing to stop construction. A penalty can only be imposed

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<sup>1086</sup> The first regulation of environmental protection was Provisions on Environmental Protection and Improvement (Draft for Trial Implementation) 《关于保护和改善环境的若干规定（试行草案）》 When I wrote this chapter in 2019, I checked the Ministry of Ecology and Environmental website, and there are 36 acts on environmental protection, 54 administration laws and regulations, 255 normative documents issued by the State Council, over 1600 environmental standards, and a mass of rules of technical specification; L Tao, *论生态制度文明建设的路径---以近40年中国环境法治发展的回顾与反思为基点* [Discussion of Establishment of Ecological System Civilization – Based on the Review and Reflection on Development of Environmental Law in China in the Past 40 Years] (Nanjing University Press 2014) 94-95

<sup>1087</sup> Wang (n 770)

<sup>1088</sup> Li (n 1004)

<sup>1089</sup> EIA Law 2002 (n 842) Article 3.

following an order to stop construction and a failure to comply with the order within a specified time. This is arguably an example of insufficient legislation.<sup>1090</sup> In another way, it also shows that capacity and deterrence are connected to some extent.

Yu has indicated that despite the implementation of the Measures for Environmental Administrative Punishment from 2010, which improved the enforcement of punishments with the addition of many administrative penalties, such as suspension of permits, confiscation of illegal gains, orders to stop operation for correction, orders to suspend or shut down business, and administrative detention, enforcement is still weak.<sup>1091</sup> That is because of the conflict of some environmental standards and laws. For example, the conflict in the Law on the Prevention and Control of Air Pollution and Emission Standards for Food and Beverage Industry<sup>1092</sup> in the case of Huang Wenhong and the Environmental Protection Bureau of Wuzhou for illegal emissions.<sup>1093</sup> Such defects in legislation create difficulties for regulators in enforcement.

Thirdly, the amount of funding available is not extensive. Local EPB and environmental inspection teams are the main force of environmental law

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<sup>1090</sup> K Li, ‘环境执法风险防范研究---基于行政自制的视角’ [Research on the Risk Prevention of Environmental Law Enforcement -Based on the Perspective of Administrative Self-restraint], (PhD Thesis, Jilin University 2016)

<sup>1091</sup> WX Yu, ‘环境行政处罚：规制发展和行政自制’ [Environmental Administrative Penalty: Regulation Developing and Predicament Resolving] (2010) 6 (3) Environmental Protection 27

<sup>1092</sup> 饮食业油烟排放标准 (Emission Standard of Cooking Fume) GB 18483-2001.

<sup>1093</sup> Case Number: (2016) 桂 0405 行初 32 号

The restaurant, owned by Huang Wenhong, caused illegal emissions in a housing estate, resulting in strong complaints from the local community. The EPB issued an Administrative Penalty (case number: 梧环罚字 [2016]27 号) against Huang after the investigation. Huang took legal proceedings against the EPB to revoke the decision. The court applied article 20 of the Law on the Prevention and Control of Air Pollution (PCAPL) and referred to the Emission Standards for Food and Beverage Industry (ESFBI), and found the provision of ‘*The emission of smoke without tissue is regarded as exceeding the standard*’ in Emission Standards for Food and Beverage Industry conflicts with Articles 20, 99 and 100 of the Law on the Prevention and Control of Air Pollution. However, Huang alleged that the emission complied with the Emission Standards for Food and Beverage Industry. In this situation, the standard (ESFBI) is a low-level regulation, but the law (PCAPL) is a high-level regulation. Low-level regulation cannot violate high-level regulation. So, the court did not support Huang's request.



enforcement in China.<sup>1094</sup> Their funds do not come from the central environmental protection authorities but from the local government financial allocation or special financial support,<sup>1095</sup> or from their revenue.<sup>1096</sup> The reality is that governments tend to prioritise economic benefits and GDP growth at the expense of the environment.<sup>1097</sup> Considering this approach to governance, the funds for environmental protection are commonly in short supply.<sup>1098</sup> It is difficult to determine precisely how much government funding supports EPB environmental law enforcement.<sup>1099</sup> However, research by Zhang and Zou shows that the funding for environmental protection in China is less than 0.6 percent of the GDP and largely relies on the local governments.<sup>1100</sup>

The lack of adequate funding leads to enforcement problems because there are serious equipment shortages and poor technology for forensics, which hampers the investigation of cases and collection of evidence when environmental pollution occurs. In addition, regulatory staff also have low motivation because of the shortage of funding. EPB's revenue is a source of funding, and this revenue is mainly from fines imposed on polluters. Thus, it arguably reduces the authority and transparency of environmental law enforcement because the EPBs may be perceived to be enforcing the law to raise funds through fines and, hence, abusing their powers rather than ensuring better compliance with the law.

Fourthly, coordination of enforcement is also an important element of the capacity of

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<sup>1094</sup> T Jiang, '从实际出发做好环境监察工作保护生态环境' [Environmental Monitoring and Protection of Ecological Environment from Reality] (2018) 8 (128) *Environment and Development* 214

<sup>1095</sup> Special financial support means that the EPBs at the city and county level, especially those in the middle or western provinces, can apply for special funding support through specific projects from central and local governments to solve emergency environmental financial problems.

<sup>1096</sup> XD Song, '我国环保经费短缺的困境与出路' [The Dilemma and Way Out of the Shortage of Environmental Protection Funds in China] (2012) 1 (3) *The Economic Aspect* 111

<sup>1097</sup> For example, to grow GDP in the short term, the government introduces capital and sets up many factories.

<sup>1098</sup> Wang (n 770)

<sup>1099</sup> I have checked the government information disclosure network and EPB websites and cannot find the monthly and annual funding amounts.

<sup>1100</sup> Zhang (n 1085)

regulators, which refers to coordination between the environmental protection authorities, between environmental protection authorities and government departments, between government bodies and enterprises and public institutions to establish the forms of interaction, the establishment of networks, mutual restrictions and also how coordination impacts on environmental law enforcement.<sup>1101</sup>

Legislation also states the importance of coordination.<sup>1102</sup> As the Environmental Protection Law provision highlights, there is no specific institution to coordinate environmental law enforcement, and local governments are responsible for coordinating authorities, departments and institutions to improve trans-area enforcement. As an example, to improve the coordination of environmental law enforcement, the Intermediate People's Court of Kunming, Kunming Procuratorate, the Public Security Bureau of Kunming City, and the EPB of Kunming City have jointly released 'The Implementation Opinions in the Establishment of Law Enforcement Coordination Mechanism for Environmental Protection.'<sup>1103</sup>

In addition, local legislation also emphasises the coordination of enforcement. For example, the Regulations of Shanghai Municipality on Environmental Protection require that the municipal government be responsible for the environmental quality of the administrative area, supervising and evaluating leads on environmental compliance and enforcement; enterprises must focus on strengthening their responsibility for pollution prevention and control, and disclosure of information on pollution discharge, as well as promotion of cleaner production; and an improvement of the public interest litigation system in order for the public to participate in

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<sup>1101</sup> Ibid

<sup>1102</sup> EPL 1989, Article 15: 'work for the prevention and control of the environmental pollution and damage that involve various administrative areas shall be conducted by the relevant local people's governments through negotiation, or by decision of the people's government at a higher level through mediation.'

<sup>1103</sup> 关于建立环境保护执法协调机制的实施意见 (云南,昆明) [Implementation Opinions on Establishing Coordination for Enforcement of Environmental Protection Law (Kunming Yunan Province)] 2008

environmental protection and enforcement.<sup>1104</sup> It is questionable whether this amounts to coordination of enforcement rather than simply setting out the respective responsibilities of various stakeholders.

Although the coordination of environmental law enforcement has developed to some extent, due to the complexity, uncertainty, and long-term latency of environmental pollution issues, especially regional and transboundary pollution, it is still ineffective, leading to enforcement inefficiency.<sup>1105</sup> For example, if hazardous waste is shipped from the United States to China and dumped in a village near a provincial boundary, the toxic substance could also pollute the neighbouring province and cause death through poisoning. Addressing such a situation would require transboundary and trans-province enforcement, which requires the EPB, customs, public security authorities, procuratorate and other enforcement departments to cooperate and potentially do so with international bodies.

On the other hand, the central departments involved in the enforcement of administrative law include the Ministry of Ecology and Environment,<sup>1106</sup> the Department of Marine Ecology,<sup>1107</sup> the Department of National Land,<sup>1108</sup> the Department of Agriculture,<sup>1109</sup> the Department of Water Conservancy<sup>1110</sup> and the

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<sup>1104</sup> 上海市环境保护条例 [Regulations of Shanghai Municipality on Environmental Protection] 1994, Part 4; Environmental Inspection Management provided the responsibility of environmental agencies, government and other inspection institutions

<sup>1105</sup> Y Zhang and K Zhou, '环境司法与环境行政执法协调联动的基本模式及主要障碍' [The Basic Mode and Main Obstacle of Coordination between Environmental Justice and Environmental Administrative Law Enforcement] (2019) 3 (11) Journal of Nanjing University of Technology (Social Science) 32

<sup>1106</sup> The Ministry of Ecology and Environment enforces pollution prevention and control laws, ecological protection, and nuclear and radiation safety

<sup>1107</sup> The Department of Marine Ecology enforces the law on marine and island pollution prevention and control and relevant ecological protection

<sup>1108</sup> The Department of National Land enforces the law on the prevention and control of groundwater pollution and ecological damage caused by the development of land and mineral resources

<sup>1109</sup> The Department of Agriculture enforces the law to prevent and control agriculture pollution

<sup>1110</sup> The Department of Water Conservancy enforces the law on river basin water ecological environmental protection

Department of Forestry.<sup>1111</sup> Legislation has suggested that the environmental law enforcement regime should be reformed and comprehensive. For example, one piece of significant national legislation is the Guiding Opinions on Deepening the Reform of Comprehensive Administrative Law Enforcement on Ecological and Environmental Protection, jointly issued by the General Office of the Central Committee of the Chinese Communist Party and the General Office of the State Council.<sup>1112</sup>

### 6.3.2 Capacity of Regulators in the UK

The capacity of regulators in the UK is also considered in the context of staffing, legislation, government funding support, and coordination measures. As explained above, examples are drawn from England and Scotland in particular.

First, in the section on independence above, it was noted that UK legislation requires that Agency board members have environmental knowledge and experience. Further details can be found on, for example, the SEPA website,<sup>1113</sup> where biographies of board members are provided along with their relevant expertise.<sup>1114</sup> The board is expected to provide leadership, and the transparency measures in place enable people to see if there is effective leadership.

The SEPA staff level in 2018/19 was 1180 Full-Time Equivalent (FTE) and 1197 FTE in 2017/18.<sup>1115</sup> Staffing costs were the principal element of expenditure

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<sup>1111</sup> The Department of Forestry enforces the law regarding ecological damage caused by illegal mining, road, and dam construction in nature reserves;

A Li and YM Chen, '生态环境保护综合行政执法现实困境与完善路径' [The Practical Dilemma and Improvement Path of Ecological Environmental Protection Comprehensive Administrative Law Enforcement] (2019) 40 (4) Journal of JiShou University (Social Science) 95

<sup>1112</sup> See (n 847), states that '*effectively integrate enforcement responsibilities and teams in the field of ecological and environmental protection, set up law enforcement agencies in a scientific way, and strengthen the comprehensive law enforcement system and capacity building for ecological and environmental protection.*'

<sup>1113</sup> 'Our Board of SEPA' <<https://www.sepa.org.uk/about-us/how-we-work/our-board/>> accessed March 2020

<sup>1114</sup> 'Members of SEPA' <<https://www.sepa.org.uk/about-us/how-we-work/our-board/members/>> accessed March 2020

<sup>1115</sup> SEPA Annual Report and Accounts 2018/19 (n 1065) 68

between 2010 and 2020 at around 50 to 60 million GBP each year.<sup>1116</sup> Given that staff expenditures remained similar from 2010 to 2020, staffing levels have likely remained roughly the same. The number of staff involved in compliance work (including enforcement and other duties) was 360 up to 31 March 2018 and 349 up to 31 March 2019, showing a slight decrease. However, payroll and other staff-related costs for staff were 60,873 GBP in 2018, increasing to 68,409 GBP in 2019.<sup>1117</sup>

Secondly, in terms of legislation, enforcement measures have improved gradually. Enforcement options were limited under older statutes, such as the Control of Pollution Act 1974, and involved mostly prosecution. If that were not applicable, informal warnings would be given.<sup>1118</sup> The Environmental Protection Act 1990 and the Environment Act 1995 provided a much more comprehensive range of enforcement options to deal with breaches of licence conditions, including administrative notices such as enforcement notices, notices suspending or revoking licenses and works notices requiring polluters to carry out preventive or remedial works at their expense. Those options have been further refined in, for example, the Environmental Permitting (England and Wales) Regulations 2016.<sup>1119</sup> There is generally better clarity about what powers an Agency has, when it can use those powers, and what the consequences will be.<sup>1120</sup> Criminal liability is often the last resort. The Regulatory Enforcement and Sanctions Act 2008 has also added civil sanctions to the agencies' toolkit.<sup>1121</sup> It is worth noting the difference between civil liability, where the cost of remediation falls on the polluter, and civil sanction, imposed as a punishment by the Agency rather than a criminal sanction imposed by a

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<sup>1116</sup> Ibid 11

<sup>1117</sup> Ibid

<sup>1118</sup> K Hawkins, *Environment and Enforcement, Regulation and the Social Definition of Pollution* (Oxford University Press, 1984)

<sup>1119</sup> Environmental Permitting (England and Wales) Regulations 2016, Part 4 (Article 36-Article 44)

<sup>1120</sup> M Poustie, *Stair Memorial Encyclopaedia of the Laws of Scotland, Environment* (Reissue 2007); Poustie (n 1050)

<sup>1121</sup> Regulatory Enforcement and Sanction Act 2008, c 13 Part 3 (Article 36-71)

court.

Some areas of confusion still need to be clarified, such as the overlap between Agency and Office of Nuclear Regulation (formerly Nuclear Installations Inspectorate) controls over nuclear installations and radioactive substances.<sup>1122</sup>

There is also confusion about some general legislative powers, such as that provided in section 37 of the Environment Act 1995, and what actions that provision allows the Agencies to take.<sup>1123</sup> However, in other cases, explicit provisions delimit the respective functions of authorities. For instance, local authorities are prevented from using statutory nuisance provisions in relation to a contaminated site because they are regulated under other specific legislation.<sup>1124</sup> Also, local authorities are prohibited from using statutory nuisance provisions where the nuisance emanates from an installation regulated by one of the Agencies under regulations made under the Pollution Prevention and Control Act 1999.<sup>1125</sup> Generally, the UK has good clarity about which regulators do what and the scope of their powers.

Thirdly, UK regulators are relatively well funded by the relevant Governments, but how they are funded is evolving. For example, over the 10-year period from 2010 to 2020, SEPA's income has remained relatively constant at around £80m per year.<sup>1126</sup> However, the income source changed, with the government grant decreasing and the amount raised from charging fees for regulation increasing. From 2010 to 2020, the government grant was reduced from nearly 50 million GBP annually to 31.8 million GBP, while the amount raised from fees increased during the same period.<sup>1127</sup> This suggests a relatively well-funded regulator, particularly because this has been a time of low inflation. Nonetheless, it is clear that SEPA is functioning with a reduced

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<sup>1122</sup> Poustie (n 1050) notes on functions not transferred to Agencies.

<sup>1123</sup> Ibid, notes on the Environmental Act 1995, s 37

<sup>1124</sup> Environmental Protection Act 1990, s 79(1A)

<sup>1125</sup> Ibid, s 79(10)

<sup>1126</sup> SEPA Annual Report and Accounts 2018/19 (n 1065) fig 1, p.10

<sup>1127</sup> Ibid, fig.1, p.10

budget over this period as, taking into account inflation, £80m would be over 103 million GBP in 2019.<sup>1128</sup>

Fourthly, coordination measures are implemented in the UK. Some legislation requires one regulator to consult another in performing a function. For example, SEPA must consult with bodies such as the relevant local authority, health board, Scottish Natural Heritage (now Nature Scot) and Scottish Water, where a permit application affects their area or a particular interest.<sup>1129</sup> Public bodies with environmental responsibilities, like agencies, must also be consulted by local authorities performing planning functions when they receive an Environmental Impact Assessment Report.<sup>1130</sup> These measures help to ensure coordination and cooperation among the relevant institutions.

However, where no legislation provides for coordination, and coordination is desirable, there are still normal measures for such coordination and joint working. These are Memoranda of Understanding (MOU) and Joint Protocols between the Agencies and other regulators. For example, SEPA has an extensive list of such Memoranda and Protocols in Scotland.<sup>1131</sup> These include a Joint Working Protocol between SEPA, Scottish Natural Heritage (now Nature Scot) and Marine Scotland for the implementation of the Environmental Liability Directive (2020) and a Memorandum of Understanding on matters of mutual interest in Scotland between SEPA and the Office of Nuclear Regulation (2019). This latter Memorandum is designed to minimise the overlaps identified above. In addition to promoting coordinated independent working, as was argued above, such measures can enhance capacity. One might argue that these forms of coordination are actually a form of internal horizontal network to enhance enforcement. This issue is developed further

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<sup>1128</sup> Ibid

<sup>1129</sup> Pollution Prevention and Control (Scotland) Regulations 2012 (n 892) para 13

<sup>1130</sup> Town and Country Planning (Environmental Impact Assessment) Regulations 2017, SI 2017/571, reg 22(2)

<sup>1131</sup> 'SEPA Memoranda of Understanding' <<https://www.sepa.org.uk/regulations/how-we-regulate/policies/memoranda-of-understanding/>> accessed October 2022

in Chapter 7.

Specifically, on the theme of this thesis, there is an arrangement for cooperation regarding the control of waste shipments into, within and out of the European Union between SEPA, the Environment Agency, the Northern Ireland Environment Agency, Natural Resources Wales, the Belgian Environment, Nature and Energy Department and Dublin City Council (2010). This recognises that coordination – and indeed networks – are needed to address transfrontier shipment of waste issues. It is not yet clear how this arrangement will be impacted by Brexit. Concerning enforcement, there is also an Environmental Crime Protocol between SEPA, the Crown Office, and the Procurator Fiscal Service.<sup>1132</sup> This Protocol ensures coordinated work between the regulator and the prosecutor.

Therefore, both China and the UK recognise the value of coordinating efforts. As discussed above, the UK has formalised more of these arrangements than China in its legislation or through non-legislative instruments like Protocols or Memoranda of Understanding.<sup>1133</sup>

### **6.3.3 Discussion and Comparative Analysis**

This discussion will consider the issues of staffing, legislation, funding, and coordination of work.

A comparison of staffing between China and the UK suggests that staffing levels in China are below the level they need to be at, not simply for overall policy development and coordination but also at the regulator level. Enforcement staff in China are also less likely to have relevant professional qualifications and training. Regulatory leadership in the UK must also involve relevant expertise, which is

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<sup>1132</sup> SEPA (n 898)

<sup>1133</sup> Please see Chapter 7, 7.4, which discusses enforcement networks between regulators, and 7.5.2, which discusses contributing to regulators' capacity



frequently lacking in China. Moreover, given Scotland's size compared with the staffing figures shown above for China, it suggests that regulators in Scotland are well-staffed compared with China.

In terms of legislation, the environmental law regime in China is relatively more recent than that of the UK.<sup>1134</sup> Apart from the ancient legislation passed by the Senate of Rome around AD 80 to protect city water for drinking and bathing, the English government prohibited burning coal in London and disposing of waste in waterways in the 14<sup>th</sup> Century. However, it is not known how well these provisions were enforced.<sup>1135</sup> The first recognisably modern legislation to protect the environment in the UK was the Alkali Act of 1863, which targeted industrial air pollution. Therefore, the development of environmental law in the UK has a much longer history than in China. For the UK, this has ultimately resulted in better integration of pollution control regimes,<sup>1136</sup> more extensive enforcement mechanisms available across environmental regimes,<sup>1137</sup> and better clarity about the relationship between local and central controls of environmental governance.<sup>1138</sup> However, it should be noted that a system of integrated pollution control was not introduced until the Environmental Protection Act of 1990. The greater clarity mentioned above can make enforcement more efficient.

The Chinese EPL has been revised four times, significantly improving environmental governance. However, Chinese law lacks clarity, which is evident in the UK regimes. There are still arguments that environmental legislation does not clearly and adequately provide for responsibility where there is a violation and that there are

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<sup>1134</sup> The establishment of New China was in 1949. The enactment of environmental law started around 1989.

<sup>1135</sup> C Campbell-Mohn and F Cheever, *Environmental Law* (Encyclopedia Britannica 8 September 2022)

<sup>1136</sup> Environmental Permitting (England and Wales) Regulations 2016 (n 398);

Pollution Prevention and Control (Scotland) Regulations 2012 (n 892)

<sup>1137</sup> For example, the changes made by the Environment Act 1995

<sup>1138</sup> For example, Environmental Protection Act 1990, Pt III, s 79(10)

conflicts with local regulations.<sup>1139</sup> Regulators cannot employ enforcement measures where the legislative basis is confused, and the available enforcement mechanisms are sometimes unclear.

In addition, although central government funding for environmental protection in China has increased significantly, local environmental enforcement funding still falls short of what it should be.<sup>1140</sup> The funding shortage has led to the local EPBs' inability to recruit enough professional staff, even though a special fund for capacity building has been established.<sup>1141</sup> In contrast, the UK regulators have enjoyed reasonable levels of funding during a period of constraints on public expenditure following the 2008 to 2009 recession, although this has been somewhat eroded by inflation. This has nonetheless enabled the UK regulators to maintain sufficient staffing and a high degree of professionalism even with constrained resources. However, serious concerns about the Environment Agency and the morale of its staff have been raised in recent years.<sup>1142</sup> Data shows that the proportion of government spending on environmental protection expenditures (EPE) to GDP in the UK from 2000 to 2020 was only 0.6 percent in 2000, 2001, and 2019, with the highest level of 1.4 percent in 2005. In other years, it was normally 0.7 percent, 0.8 percent, 0.9 percent, and 1 percent.<sup>1143</sup> By comparison, the environmental protection funding in

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<sup>1139</sup> Please see the discussed chapter above: capacity of regulators.

<sup>1140</sup> M Zhang, '内蒙古环保部门经费保障存在的问题及对策' [Discussion on the Environmental Protection Department of Inner Mongolia Financial Security Problems and Countermeasures] (2013) 29 (2) Northern Environment 140

<sup>1141</sup> Ibid

<sup>1142</sup> There are increasing internet posts showing that the concern of the public has been raised; examples:

<<https://www.independent.co.uk/climate-change/news/water-pollution-sewage-environment-agency-funding-b2154848.html>>

<<https://www.theguardian.com/environment/2022/jan/29/it-is-desperate-how-environment-agency-staff-were-silenced-as-pollution-worsened>>

<<https://www.telegraph.co.uk/environment/2022/02/22/blame-river-pollution-environment-agency-leader-tell-public/>> accessed December 2022

<sup>1143</sup> 'Ratio of Government Spending on Environmental Protection expenditures (EPE) to GDP in the United Kingdom (UK) from 2000 to 2021' <<https://www.statista.com/statistics/490854/gdp-share-of-environmental-protection-expenditures-uk/>> accessed 13 December 2022

China is lower at 0.6 percent.<sup>1144</sup> So, the UK normally spends more funding on environmental protection.

In both states, there is evidence of recognition that coordinating regulators can help make enforcement more efficient. The measures taken in each state, whether legislative or non-legislative, have ensured some degree of development in enforcement networks, in line with Slaughter's typology.<sup>1145</sup> However, progress in this regard has been more significant in the UK, with legislative coordination achieved in some cases, as identified above. There are also memoranda of understanding and protocols between agencies at the national level to ensure coordinated work in other fields, including transfrontier waste shipment.

Chinese literature does not indicate any case or example of coordination between agencies in the enforcement of environmental law. However, it emphasises the need for such a comprehensive enforcement coordination scheme.<sup>1146</sup> As noted above, local measures have been taken in Kunming City, and there has been some central government action, not least in reducing the number of ministries involved in environmental protection by consolidating the position of the much expanded Ministry of Ecology and Environment. Lu, Qin, and Yang analyse progress on this issue in their work.<sup>1147</sup> However, beyond that, coordination efforts appear more limited than in the UK.

The potential for enforcement networks to ensure smart use of relatively limited resources – whether staff or financial – seems clear. In addition, if the legislative framework is complex or unclear, an enforcement network could reach a common understanding of the legislative content, which might assist in their enforcement

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<sup>1144</sup> See above this chapter

<sup>1145</sup> Slaughter (n 92) 52-61

<sup>1146</sup> SY He, '论我国环境执法机构的重构' [Discussion the Rebuilt of Environmental Law Enforcement Institutions in China] (2007) 122 (1) *Academics in China* 192; Chang (n 1080)

<sup>1147</sup> Lu (n 746)

assignments.<sup>1148</sup> Legislation requires local EPBs at the county level or above to cooperate with other relevant departments in developing environmental protection plans for their areas.<sup>1149</sup> However, beyond the general provisions of the EPL, no specific legislation requires such coordination, and there is no special requirement for capacity building.<sup>1150</sup>

## **6.4 Deterrence Effect of Enforcement**

There is much discussion about enforcement being often more about cooperation than deterrence. Deterrence-based enforcement contains many positive attributes that can be effective in environmental law enforcement and improve compliance.<sup>1151</sup> Most fundamentally, the deterrence-based enforcement system provides a strong and credible regulation system.<sup>1152</sup> For example, Stafford showed that an increase in maximum possible penalties in the US decreased violations for hazardous waste pollution.<sup>1153</sup>

### **6.4.1 Deterrence Effect of Enforcement in China**

The principle of 'polluter pays' was established in the EPL1989, which provides for imposing civil, administrative, and criminal liability on polluters for environmental violations. However, the challenge was that the cost of violating environmental regulations remained low while complying with the regulations was high; thus, the system provided insufficient deterrence to prevent environmental offences.<sup>1154</sup> For

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<sup>1148</sup> YB Sun, '郑州市环境保护能力建设现状分析及对策建议' [Analysis of the Current Situation of Zhengzhou's Environmental Protection Capacity Building and Countermeasures] (2017) 6 *Journal of Green Science and Technology*

<sup>1149</sup> EPL1989, Article 13

<sup>1150</sup> Sun (n 1148)

<sup>1151</sup> C Rechtschaffen, 'Deterrence vs. Cooperation and the Evolving Theory of Environmental Enforcement' (1998) 71 *S. Cal. L. Rev.* 1181

<sup>1152</sup> *Ibid*

<sup>1153</sup> SL Stafford, 'The effect of punishment on firm compliance with hazardous waste regulations' (2002) 44 (2) *J. Environ. Econ Manage* 290

<sup>1154</sup> Wang (n 770)

example, besides criminal penalties, environmental law enforcement mainly involves applying environmental inspection and administrative measures, which generally include warnings, fines (the most frequently used measure), orders to stop production or business operation, treatment within a time limit, revocation of business license, and administrative detention. However, because the size of administrative fines is relatively low, environmental violations are still rampant.<sup>1155</sup>

Also, the Measures for Environmental Administrative Penalties provide seven specific punishment measures,<sup>1156</sup> to enhance the deterrence of environmental law enforcement. It also includes the possibility of daily fines, limitations on production, suspension of production to allow for remediation and ‘environmental administrative detention’.<sup>1157</sup>

The implementation of daily fines is a significant improvement in enforcement mechanisms. After revising the EPL in 2014, 715 enforcement cases involved daily fines. The total amount of fines was RMB 569.5441 million from January to December 2015 (not including the amount from February to June in Shandong province).<sup>1158</sup> The data issued on 30 November 2016 showed that there were 592 enforcement cases where a fine was imposed on a daily basis from January to October 2016, totalling RMB 686.299 million. The number of cases increased by 14 percent compared with the same period in the previous year.<sup>1159</sup> In addition, there were 6033 cases of sealing up and detaining facilities and equipment, 3400 cases of production restriction and suspension, 2722 cases of administrative detention, and

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<sup>1155</sup> XB He, '我国威慑型环境执法困境的破解-基于观念和机制的分析' [Solving the Dilemma of Deterrent Environmental Law Enforcement in China-Based on the Concept and Mechanism Analysis] (2016) 4 (4) *Studies in Law and Business* 24

<sup>1156</sup> PRC Measures for Environmental Administrative Penalties 2009, Article 10

<sup>1157</sup> EPL 2014, Chapter 6.

<sup>1158</sup> Wang (n 770)

<sup>1159</sup> ‘环境保护部通报 2016 年 1-10 月《环境保护法》配套办法执行情况’ [The ministry of environmental protection announced the implementation of the supporting measures in the environmental protection law from January to October 2016] (30 November 2016) <[http://www.gov.cn/xinwen/2016-11/30/content\\_5140775.htm](http://www.gov.cn/xinwen/2016-11/30/content_5140775.htm)> accessed May 2019

1500 cases transferred to the public security bureau involving suspected crime.<sup>1160</sup>

After introducing the enforcement mechanisms of EPL2014, it appears that the greater deterrence they provide has improved compliance with environmental law. For example, the correction rate of enterprises' illegal behaviours was only 4.8 percent in Chongqing City before the implementation of provisions on daily fines. However, the rate increased to 84 percent after the introduction of the new fine policy.<sup>1161</sup> After one year of implementation of the daily fine in Shenzhen, the rate of compliance with environmental law by enterprises increased by 30 percent, and the number of repeated violations decreased by 45 percent. Overall, the total number of environmental violations in China reduced by 8 percent.<sup>1162</sup>

On the other side, there is a strong argument that environmental law enforcement, in practice, is simply using administrative sanctions to replace criminal punishments, such as imprisonment.<sup>1163</sup> Administrative departments that have the power to impose administrative punishments do not transfer the case for prosecution. Such administrative departments close the administrative violation case after imposing administrative sanctions, even where these cases potentially involve criminal offences.<sup>1164</sup> This model of environmental law enforcement simplifies the enforcement procedure. However, Wu and Li consider that it may have diminished the deterrent effect and effectiveness of a more robust environmental enforcement system.<sup>1165</sup> On the other hand, the higher rates of compliance shown above suggest that the new system is providing effective deterrence.

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<sup>1160</sup> Ibid

<sup>1161</sup> HF Yan, '环境保护法按日计罚条款评析' [Evolution of the term 'fine thereon consecutively on a daily basis on Environmental Protection Law] (2015) 1 Tsinghua Forum of Rule of Law 243

<sup>1162</sup> Ibid

<sup>1163</sup> K Zhen and C Hu, '环境执法中的“以罚代刑”现象及其规制策略分析' [An analysis of 'substituting penalty with punishment' in enforcement law enforcement and, its regulation strategies] (2019) 14 Legal Expo 165

<sup>1164</sup> Ibid

<sup>1165</sup> W Wu and J Li, '污染环境罪司法适用问题研究-以两高《关于办理环境污染形式案件适用法律若干问题的解释》' [Research on the Judicial Application of Environmental Pollution Crime] (2014) 6 Hebei Law 194

The relevant legislation must be robust to enhance the deterrent effect and effectiveness of environmental law enforcement. Moreover, such legislation should establish networks of enforcement institutions, administrative departments, and procuratorial organs to supervise the enforcement procedure. Wu and Li argued that establishing information sharing networks for environmental enforcement institutions and criminal judicial departments is also necessary for enhancing law enforcement and its deterrence effect.<sup>1166</sup>

For the purpose of controlling the transboundary movement of hazardous waste to China, the legislative authority has implemented a licensing system for importing exploitable waste. This system allows a license holder to import exploitable wastes of limited categories and quantities, where the waste can be used as raw materials.<sup>1167</sup> Importing waste in any form or by any means is a violation of the laws except under the permitted under a license. This may mean that what is regarded as hazardous waste outside China might be regarded as non-waste in China because it does not appear on the list. This arguably weakens the effectiveness of the Chinese solid waste import ban and makes enforcement harder. In this regard, the violation constitutes a criminal or administrative offence, depending on the nature of the harm.<sup>1168</sup>

Summarising import waste cases,<sup>1169</sup> it is a fact that most import cases are charged

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<sup>1166</sup> Ibid

<sup>1167</sup> The General Office of the State Council issued a Notice on Implementation Plan for the Reform of the Management System for the Prohibition of Import of Transboundary Solid on July 2017, which required the complete ban of the import of solid waste that this harmful to the environment by the end of 2017. This includes 24 categories of waste, including plastic and mixed paper.

<sup>1168</sup> SG Han, '浅析进口废物案件的定性与处理-以两起典型案例为例' [Determination and Handling of the Cases of Imported Waste - Based on Two Typical Cases] (2019) 8 Customs Law Review 207

<sup>1169</sup> '聚法案例' This is the website for searching all closed cases in which a verdict or judgment has been issued < <https://www.jufaanli.com>, accessed September 2019 > accessed September 2019

as waste smuggling offences<sup>1170</sup> and illegal import and disposal of waste offence.<sup>1171</sup> MEE has also proposed an amendment to the Solid Waste Law, which would introduce several measures to strengthen enforcement and elevate the legal risks of improper solid waste control or violations of the Solid Waste Law.<sup>1172</sup> The enforcement of daily consecutive penalties<sup>1173</sup> and sealing or seizure of facilities, equipment and tools have been included in the draft amendment.<sup>1174</sup>

#### 6.4.2 Deterrence Effect of Enforcement in the UK

The enforcement of adequate sanctions for violation of environmental law is key to ensuring the effectiveness of the regulatory system. The deterrence enforcement in the UK includes criminal and civil sanctions.<sup>1175</sup> According to the Regulatory Enforcement and Sanctions Act 2008, both are civil sanctions.<sup>1176</sup> The importance of deterrence is acknowledged by the Agencies themselves. For example, SEPA's current enforcement policy indicates that: 'Securing compliance with the law by detecting breaches, identifying the responsible party and instigating the prosecution of offenders, to avoid a recurrence and to act as a deterrent to others.'<sup>1177</sup>

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<sup>1170</sup> Criminal Law 1979, Article 152(3) states: 'whoever transports overseas solid, liquid or gaseous waste into the territory of China by evading supervision and control of the Customs shall, if the circumstance is serious enough, be sentenced to fixed-term imprisonment of not more than five years and shall also, or shall only, be fined; if the circumstance is serious, he shall be sentenced to fixed-term imprisonment of not less than five years and shall also be fined'. For example, in the case (2019) Yun Crim Final 144 [(2019) 云刑终 144 号], Cai Qiaoqing was sentenced to three years in prison and fined RMB 100,000 for smuggling waste, Panng Zhengting was sentenced to three years in prison, suspended for five years and fined RMB 100,000 for smuggling waste.

<sup>1171</sup> Criminal Law 1979, Article 339, such offence shall be sentenced to fix-term imprisonment and be fined; For example, in the case (2019) Lu 1522 Crim Prim 66 [(2019)鲁 1522 刑初 66 号], the defendant, Xie Quanzheng, was sentenced to eight months in prison and fined RMB 10,000 for illegally disposing of imported solid waste.

<sup>1172</sup> W Luo, 'Top Environmental Authority in China proposes Amendment to the Solid Waste Law' (Beveridge & Diamond, 31 July 2018) <<https://www.bdlaw.com/publications/top-environmental-authority-in-china-proposes-amendment-to-the-solid-waste-law/>> accessed September 2019

<sup>1173</sup> Solid Waste Law 1995, Article 91 & 92

<sup>1174</sup> Ibid, Article 17

<sup>1175</sup> C Abbot, 'The Regulatory Enforcement of Pollution Control Laws: The Australian Experience' (2005) 17 (2) *Journal of Environmental Law* 161

<sup>1176</sup> Regulatory Enforcement and Sanctions Act 2008, Part 3 civil Sanctions

<sup>1177</sup> SEPA (n 1061) Enforcement Policy- Policy No.5, para 4.5.2



Criminal sanctions can involve fines, imprisonment or community sentences following a successful prosecution for an environmental offence.<sup>1178</sup> Fines are most commonly used. The UK legislature has regularly increased the penalties available in the relevant legislation. While this may partly address inflation, it also suggests a desire to maintain the deterrent effect of penalties.

Thus, until 1991, the maximum fine for the most severe pollution offences on summary conviction (conviction by a judge alone) was 2,000 GBP.<sup>1179</sup> It was increased that year to 20,000 GBP and subsequently to 50,000 GBP in England and Wales and 40,000 GBP in Scotland.<sup>1180</sup> In England and Wales, unlimited fines are now available on summary conviction.<sup>1181</sup> Prison sentences of up to 6 months were also introduced and later increased to 12 months.<sup>1182</sup> Maximum penalties for conviction on indictment (by a jury) have also been increased from 2 or 3 years to 5 years imprisonment (unlimited fines were and are available in all cases).<sup>1183</sup>

Research findings show that while a reasonable number of environmental offences are taken to court, they are usually punished by small fines, which do not have sufficient deterrent effect for future activities that cause environmental damage.<sup>1184</sup> Various critics have questioned the extent to which the sanctions imposed are

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<sup>1178</sup> Ibid

<sup>1179</sup> Control of Pollution Act 1974, c 40, s 31(7) (water pollution).

<sup>1180</sup> Environmental Protection Act 1990, s 145(2);

Antisocial Behaviour etc (Scotland) Act 2004;

Acts of the Scottish Parliament 2004 asp 8, s 66 and Sch 2;

Clean Neighbourhoods and Environment Act 2005, c 16, s 41(1)

<sup>1181</sup> Environmental Permitting (England and Wales) Regulations 2016, reg 39 (1), (2).

<sup>1182</sup> Pollution Prevention and Control (Scotland) Regulations, 30(2)(a) (6 months), replaced by Pollution Prevention and Control (Scotland) Regulations 2012, reg.67(2)(a)(12 months).

<sup>1183</sup> Water Environment (Controlled Activities) (Scotland) Regulations 2011, SSI 2011 c.209, reg.44(2)(b);

Pollution Prevention and Control (Scotland) Regulations 2012, reg.67(2)(b)

<sup>1184</sup> C Dupont and P Zakkow, 'Trends in Environmental Sentencing in England and Wales', (DEFRA 2003) 1;

See also

M Poustie, 'Wildlife Crime Penalties Review Group Report' (Scottish Government 2015)

<[https://strathprints.strath.ac.uk/59764/1/Poustie\\_2015\\_Wildlife\\_Crime\\_Penalties\\_Review\\_Group\\_Report.pdf](https://strathprints.strath.ac.uk/59764/1/Poustie_2015_Wildlife_Crime_Penalties_Review_Group_Report.pdf)>  
accessed November 2022

sufficient as punishment and deterrence.<sup>1185</sup> However, Poustie does note that fine levels for pollution control offences are increasing,<sup>1186</sup> and the imposition of higher penalties by the courts has been welcomed.<sup>1187</sup> The introduction of a Sentencing Guideline in England and Wales has also led to higher fines.<sup>1188</sup> A Sentencing Guideline is in prospect for Scotland, but it will unlikely emerge in a few years.<sup>1189</sup>

In addition, imposing administrative sanctions as part of environmental enforcement is also potentially a major deterrent measure. Administrative sanctions, such as suspension of business activities and revocation of environmental licenses, in effect, are significant and could be said to be equivalent to the imprisonment of an individual.<sup>1190</sup> Therefore, suspension notices are widely used. However, such revocation notices are only used to a limited extent<sup>1191</sup> making the deterrent effect of this measure weak.<sup>1192</sup>

Thus, there is evidence that the legislature is increasing available penalties and that courts have responded by increasing fines. Deterrence appears to be the purpose of this. However, establishing that deterrence works requires evidence of reducing environmental offences and damage. For example, the number of water quality pollution incidents in England has reduced from the years 2019 (2,204) and 2020

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<sup>1185</sup> For example, Environment Agency (2005) Spotlight on Business Performance, p: 5;

see also De Prez, 'Excuses, Excuses: The Ritual Trivialisation of Environmental Offences' [2000] 12 JEL 65;

<sup>1186</sup> Poustie (n 1184) Paras.123-124 and figs.1 & 2.

<sup>1187</sup> Parpworth and Thomson, 'Environmental Offences: Making the Punishment Fit the Crime' (2012) 1 Jur Rev 69

<sup>1188</sup> Scottish Sentencing Council, 'Environmental Offences Definitive Guideline'

<<https://www.sentencingcouncil.org.uk/wp-content/uploads/Environmental-offences-definitive-guideline-Web.pdf>> accessed March 2023;

N Parpworth, 'The Impact of the Environmental Offences Sentencing Guideline: An Early Assessment' (2017) 1 JPL 11

<sup>1189</sup> Scottish Sentencing Council, 'Guidelines in Development',

<<https://www.scottishsentencingcouncil.org.uk/sentencing-guidelines/guidelines-in-development/>> accessed December 2022

<sup>1190</sup> A Ogus and C Abbot, 'Pollution and Penalties' in T Swanson (eds), *An Introduction to the Law and Economics of Environmental Policy: Issues in Institutional Design (Research in Law and Economics, Vol. 20)* (Emerald Group Publishing 2002) 493-516

<sup>1191</sup> For example, there were only 37 revocations of waste management licenses from 1996 to 2003.

<sup>1192</sup> Bell (n 738) 291

(1,919) to 2021 (1,883).<sup>1193</sup>

### 6.4.3 Discussion and Comparative Analysis

The foregoing sections indicate that in both countries, there is a recognition that adequate sanctions and their deterrent effect are significant in ensuring that enforcement is effective and that compliance is encouraged. In both China and the UK, there is evidence of increasing penalty levels in legislation and the imposition of these measures by the courts. However, with its more extended legislative history, the UK has had more time to enhance the deterrent effect of its enforcement mechanisms, although most of the significant increases in penalties have been in the last 30 years. Nonetheless, there has been a significant enhancement in China since the implementation of the EPL2014, which introduced daily fines and other administrative measures. Although some Chinese commentators suggest that the deterrent effect of the law has been weakened because of a diversion of cases from the criminal sphere, the compliance figures presented above strongly suggest that the revised enforcement mechanisms positively impact compliance. The UK has also introduced a relatively successful Sentencing Guideline in England and Wales.

In terms of networks, domestic enforcement networks make it more likely that offences will be detected and punished. This issue is even more important in the context of the transfrontier shipment of hazardous waste, in that it may only be by having an international enforcement network in place, whether ad hoc or ongoing, that enforcement action might be possible at all.<sup>1194</sup> In that sense, the existence of the network could be crucial to any deterrent effect resulting from the incident.

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<sup>1193</sup> 'Research and Analysis Water and Sewerage Companies in England: Environmental Performance Report 2021' (Environment Agency, updated 22 July 2022) <<https://www.gov.uk/government/publications/water-and-sewerage-companies-in-england-environmental-performance-report-2021/water-and-sewerage-companies-in-england-environmental-performance-report-2021>> accessed November 2022

<sup>1194</sup> Grabel (n 11) 289-304;

INECE, 'Seaports Environmental Security Network' <<https://www.inece.org/programs/sesn/>> accessed November 2020

Slaughter also identifies a role of the harmonisation networks, which involves bringing together enforcement officers from national agencies to enable the development of common enforcement approaches.<sup>1195</sup> The European Union Network for the Implementation and Enforcement of Environmental Law (IMPEL) is a clear example of this within the context of the EU.<sup>1196</sup> There is a specific Waste and Transfrontier Shipment of Waste expert team,<sup>1197</sup> and some of its activities include carrying out inspections (including joint inspection activities) on waste shipments, knowledge exchange, and capacity building to harmonise expertise and enforcement approaches within the participating countries.<sup>1198</sup> This could help ensure that the deterrent effect of enforcement applies more evenly between the states involved in the network.

## 6.5 Conclusion

This chapter discusses the three key enforcement themes: independence of regulators, capacity of regulators, and deterrence in the context of China and the UK. It has been argued that the greater the degree of independence of the regulator, the more effective and efficient enforcement is likely to be. It identified a high degree of regulatory independence in the UK but that this issue is problematic in China where, although progress has been made in recent years, the system of dual horizontal and vertical management of regulators still poses problems for the relative independence of regulators. In addition, the independent approach taken by UK regulators to developing and implementing their own enforcement policies contrasted significantly with the politically directed 'campaign enforcement' approach which prevails in China. It was also argued that enforcement networks between different agencies can

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<sup>1195</sup> Slaughter (n 109) 52-61

<sup>1196</sup> IMPEL, < <https://www.impel.eu/>> accessed November 2020

<sup>1197</sup> IMPEL, 'Waste Transfrontier Shipment' <<https://www.impel.eu/topics/waste-and-tfs/>> accessed November 2020

<sup>1198</sup> 'IMPEL – TFS Enforcement Actions' (Project Report 2014 – 2015) <[www.impel.eu/wp-content/uploads/2016/10/IMPEL-Enforcement-Actions-2014-15-FINAL-report.pdf](http://www.impel.eu/wp-content/uploads/2016/10/IMPEL-Enforcement-Actions-2014-15-FINAL-report.pdf)> accessed November 2020

serve to strengthen independence, particularly with respect to the horizontal management of regulators, and that information networks can help disseminate best practices, including those related to independence.

Regarding capacity, the chapter argued that staffing, legislative framework, financial resources and coordination between relevant agencies were key. In China, staffing levels and training remained relatively low compared to the UK. The legislative framework in the UK was arguably clearer in demarcating responsibilities, and although there have been recent improvements in China, the legislative framework remained unclear and ambiguous. In terms of financial resources, UK regulators are partly funded by the relevant central government and independently raise funds by charging for their regulatory activities. This contrasted significantly with China, where most funding comes from the relevant local government unit, which could negatively impact enforcement. The negative impact of inflation on the relatively constant budgets of the UK regulators was also noted.

Enforcement networks could help ensure enhanced capacity by providing for collaboration between relevant regulators through legislative or non-legislative provisions requiring such collaboration. This process has arguably advanced much further in the UK than in China, although there are signs of progress in this regard in China.<sup>1199</sup> The evidence presented in Chapter 7 below supports this contention. The UK engages in several external networks, whereas China's approach has been more focused on internal collaborative enforcement networks.<sup>1200</sup>

Such networks can address weaknesses in staffing and resources by pooling resources to deal with a particular issue. Also, such networks might serve to ensure that there is at least a common understanding reached by the diverse parties in the

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<sup>1199</sup> Y Jiao, 'Greater China and Transnational Environmental Crime: Understanding Criminal Networks and Enforcement Responses' in L Elliott and WH Scheadla, *Handbook of Transnational Environmental Crime* (Edward Elgar Publishing 2016) 255-271

<sup>1200</sup> See Chapter 7, Chapter 5, 5.3.1, Chapter 6, 6.3

network on the meaning of unclear provisions of legislation to enhance their enforcement.

In relation to deterrence, similar developments in enhancing the range and size of available penalties and the imposition of larger penalties by the regulators or courts were apparent in both China and the UK. However, this development has been underway in the UK for some considerable time, whereas in China, it was only after the implementation of the EPL2014 that there was a noticeable improvement with the introduction, for example, of daily fines and a range of other enforcement mechanisms. There was an awareness of the need for deterrence to ensure compliance and reduce environmental damage. Enforcement networks could help ensure that violations are detected and enforcement action is taken, particularly in the transfrontier shipment of waste where joint working between multiple agencies is inevitably required.

The chapter thus provides a basis for arguing that different types of networks can positively contribute to ensuring effectiveness and efficiency in the enforcement of environmental laws. The final chapter will explore this more fully.

## **Chapter 7 The Role of Networks in Enforcement and their Contribution to Enforcement of Transboundary Waste Trade Controls**

### **7.1 Aim and Outline**

In the previous chapters, there has been discussion of the international and national enforcement of environmental law in the context of legislation, institutions and enforcement mechanisms. There was also an analysis of the key themes of enforcement in Chapter 2 and how key themes work in the following chapters. In summary, there are barriers to the enforcement practice of environmental law, whether at the international, regional or national levels. Internationally, tackling transnational environmental crimes such as those involving the transfrontier shipment of waste faces the enforcement challenge of the different legislation that may be applicable and the variety of institutions that may be responsible for handling the situation. In the regime of hazardous waste transboundary pollution, Chapter 3 addresses the international legislation – Basel Convention, and the following chapter is a general understating of the enforcement of the Basel Convention. Importantly, through analysis and comparative enforcement in China and the UK, key themes of enforcement have been addressed in Chapter 6. Whether we are considering the international or national enforcement of environmental law, there are difficulties in coordinating the different but relevant institutions, authorities, and departments to achieve effective enforcement, and networks can enhance both enforcement coordination and the key themes.

There is evidence that individual environmental offenders, like waste tourists, are now exhibiting a trend towards organising themselves similarly to criminal groups.<sup>1201</sup> In addition, legal corporate entities may engage in criminal activities,

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<sup>1201</sup> L Elliott and WH Schaedla, *Handbook of Transnational Environmental Crime* (Edward Elgar Publishing 2016) 200

such as money laundering and corruption. They may be connected with organised crime networks involved in environmental offences, such as the illegal trade of hazardous waste.<sup>1202</sup> Although an international legal convention such as the Basel Convention establishes an order to be followed, implementation and enforcement depend on individual member parties. Some countries have established international enforcement networks to better address global criminal networks, facilitating collaboration among national institutions, authorities, and organisations to combat transboundary crime. Additionally, some countries have developed internal networks for information exchange and cooperation.<sup>1203</sup>

Networks play a significant role in global governance and have been established for various reasons. The existing networks that operate globally are in a unique position to gain an oversight of global trends and should be able to assist regional enforcement networks in remaining alert to emerging issues and responding accordingly once the specific issue begins to impact national jurisdictions.<sup>1204</sup>

Regarding the transboundary movement of hazardous waste, networks contribute to criminal enforcement of illegal shipments of hazardous and other wastes globally. Data shows the efficiency of network actions in fighting illegal waste shipments. For example, Interpol coordinated a '30-days of action' global enforcement action to combat illegal waste shipments in 2017, which involved the cooperation of 43 countries, identified 85 sites where the wastes had been illegally disposed of and, as a result, 326 individuals, as well as 244 companies, were reported to be involved in criminal or administrative violations.<sup>1205</sup>

According to Slaughter's theory, networks can be classified into three types:

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<sup>1202</sup> Ibid

<sup>1203</sup> Ibid, 203

<sup>1204</sup> Lehané (n 306)

<sup>1205</sup> 'Global Criminal Enforcement of Illegal Waste Exports-A Renewed Focus'

<<https://www.enhesa.com/resources/article/global-criminal-enforcement-of-illegal-waste-exports-a-renewed-focus/>> accessed March 2024



information networks, harmonisation networks, and enforcement networks.<sup>1206</sup> The establishment and existence of information networks rely on valuable communication enhanced by technology and experience. Harmonisation networks provide the basis for complex negotiations to harmonise laws, regulations, and procedures of different nations. Enforcement networks involve direct operational action, including assistance and support to strengthen inspection and monitoring. Such enforcement networks aim to improve national enforcement capacity.<sup>1207</sup>

This chapter will discuss and analyse the three types of networks. First, it will introduce these networks generally and then give typical examples of networks, their functions, and their roles. This thesis uses the International Network for Environmental Compliance and Enforcement (INECE) as an example of an information network and the European Union Network for the Implementation and Enforcement of Environmental Law (IMPEL) as an example of a harmonisation network. Although Slaughter identifies three types of networks, some of their functions overlap.<sup>1208</sup> Therefore, the analysis and discussion of enforcement networks will also consider the activities of INECE and IMPEL. It should also be noted that details of enforcement networks are sometimes more challenging to obtain. Such networks may understandably not have a public presence but may involve practical day-to-day collaboration between officers in different national agencies. Finally, the chapter will analyse the three types of networks and their merits and consider how each can contribute to the three themes of enforcement. The chapter will also specifically explore how networks can improve the enforcement of transfrontier waste regimes.

## **7.2 Information Networks**

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<sup>1206</sup> Slaughter (n 109)

<sup>1207</sup> Ibid

<sup>1208</sup> Ibid

### 7.2.1 General Introduction of Information Networks

Information networks cannot simply be understood as information sharing but promote convergence through supporting one another in legislative initiatives and offering training programs and technical assistance.<sup>1209</sup> In her book, Slaughter states, 'The glue of any transgovernmental networks is the exchange of information and ideas. Put a group of environmental regulators, central bankers, or utilities commissioners in a room, and they will begin talking about different techniques of regulation, commiserating about common problems, and brainstorming new approaches.'<sup>1210</sup>

### 7.2.2 INECE

INECE was mainly founded by the Netherlands' Ministry of Housing, Spatial Planning Instruments and the Environment and the United States EPA.<sup>1211</sup> It was an early leader in understanding the significance of transgovernmental networks in responding to the challenge of facilitating collaboration and information exchange between environmental compliance and enforcement officials.<sup>1212</sup> In addition, INECE can also be regarded as a typical example of an information network in Slaughter's classification, as its goals are to: *'Improve enforcement and compliance through better cooperation; Strengthen capacity throughout the regulatory cycle to implement and secure compliance with environmental requirements; and raise awareness of the importance of environmental compliance and enforcement to sustainable development'*.<sup>1213</sup>

INECE aims to involve environmental regulators, judges, prosecutors, and

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<sup>1209</sup> AM Slaughter, 'Sovereignty and Power in a Networked World Order' (2004) 40 STAN. J. INT'L 283

<sup>1210</sup> Slaughter (n 109) 52-61

<sup>1211</sup> INECE, with additional support from UNEP, the World Bank, the European Commission, Environment Canada, the Organisation, and the OECD.

<sup>1212</sup> Slaughter (n 109) 7

<sup>1213</sup> INECE, <<https://inece.org/about/>> accessed 30 June 2020

employees of environmental organisations in its activities. It also involves officials from the national police, customs, NGOs, business, academia, and the media.<sup>1214</sup> Therefore, INECE can be regarded as a hybrid organisation,<sup>1215</sup> which can be understood as a 'network of networks' that supports establishing other regional networks. For example, the East African Network for Environmental Compliance and Enforcement (EANECE) is an independent network which aims to foster sustainable development in East Africa through better compliance and enforcement of environmental laws and policies by promoting regional harmonisation of environmental laws and regulatory frameworks; capacity building; sharing of information on priority environmental enforcement and compliance issues; and strengthening the relationship among its members to improve cooperation on inter-agency and cross-border environmental issues.<sup>1216</sup> Importantly, EANECE is also a member of INECE, which ensures that EANECE members can access INECE Training Programs to enhance the capacity of enforcement officials and ensure they can benefit from good practices and other services provided by INECE.<sup>1217</sup>

Since its establishment in 1989, INECE has organised a series of international conferences to share experiences. Participants and members have also collaborated to facilitate training, workshops, and discussions on comparative studies.<sup>1218</sup> INECE's Executive Committee is its decision-making body with primary responsibility for implementing the Strategic Plan and work plans; it also cooperates with the Secretariat, which coordinates financial and in-kind support from INECE partners to ensure participants' communication of cooperative enforcement activities.<sup>1219</sup>

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<sup>1214</sup> Ibid

<sup>1215</sup> Klaas (n 79)

<sup>1216</sup> EANECE, <<https://eanece.org/who-we-are/>> accessed 20 March 2020

<sup>1217</sup> Ibid

<sup>1218</sup> Farmer (n 41) 249-251

<sup>1219</sup> S Zerrin, 'The Role of Networks in Ensuring Compliance and Strengthening Coordination: A Comparative Analysis on INECE, ECENA, RENA and REC Turkey' in M Faure, P D Smedt and A Stas (eds), *Environmental Enforcement Networks: Concepts, Implementation and Effectiveness* (Edward Elgar Publishing 2015) 83

According to the information on the INECE website, INECE organised nine international conferences on environmental compliance and enforcement in 2011 and has held more than ten conferences since then.<sup>1220</sup> However, there are still other international and regional conferences involving INECE.<sup>1221</sup> For example, the author attended the INECE International Conference on ‘Environmental Enforcement Networks: Concepts, Implementation and Effectiveness’ in November 2013.<sup>1222</sup> This international conference revealed that INECE was working collaboratively with other environmental enforcement bodies, notably the Flemish High Council of Environmental Enforcement (VHRM), to promote the idea and value of networks.<sup>1223</sup>

Apart from organising international and regional conferences and workshops, INECE also provides an open platform for information sharing. For example, INECE's library provides various materials on environmental enforcement processes, including those related to international and regional activities.<sup>1224</sup> In addition to its central role, INECE is a network platform. Typically, INECE launches a series of technical training and capacity building programs developed by the US EPA to introduce US regulatory practices to the jurisdictions of other countries.<sup>1225</sup> For example, 27 courses were delivered to 13 countries by US EPA in 1997.<sup>1226</sup>

INECE also facilitates internet information exchange forums to promote communication between individuals on environmental enforcement.<sup>1227</sup> INECE also

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<sup>1220</sup> INECE Conference, <<https://inece.org/events/inece-conferences/>> accessed 1 July 2020

<sup>1221</sup> INECE Events, <<https://inece.org/events/>> accessed 1 July 2020

<sup>1222</sup> INECE organised the conference in cooperation with the Flemish High Council of Environmental Enforcement (VHRM);

‘International Conference on Environmental Enforcement Networks: Concepts, Implementation and Effectiveness’, <<https://inece.org/events/show/EventItem-045>> accessed 7 July 2020

<sup>1223</sup> Pink (n 143) 34

<sup>1224</sup> INECE Library, <<https://inece.org/library/?start=20>> accessed 8 July 2020

<sup>1225</sup> K Raustiala, ‘The Architecture of International Cooperation: Transgovernmental Networks and the Future of International Law’ (2002) 43 Va. J. Int’l L. 1

<sup>1226</sup> Ibid

<sup>1227</sup> INECE organised the conference with the Flemish High Council of Environmental Enforcement (VHRM), <<https://inece.org/events/show/EventItem-045>> accessed 7 July 2020

organises Internet information exchange forums to facilitate communication between individuals.<sup>1228</sup> Topics covered in such forums include enforcement indicators, hazardous wastes, inspecting, and public access to information.<sup>1229</sup>

From 2005 to 2015, INECE emphasised two themes: first, understanding how compliance with and enforcement of environmental regulation creates value for society in all areas, and second, the importance of enforcement networks in strengthening environmental governance.<sup>1230</sup> In 2015 and after, innovation and practice activities were prioritised by INECE under its Strategic Plan.<sup>1231</sup> It is worth noting that the INECE Special Report on Next Generation Compliance was issued in 2015, introducing innovative views and solutions for increasing the effectiveness of environmental compliance and enforcement. According to this Special Report, INECE seeks to bridge the gap between developing technologies and practitioners to improve compliance. INECE is already working with national authorities to promote compliance with existing and emerging national laws on environmental protection. For example, INECE is working to support new air pollution control in China.<sup>1232</sup>

Furthermore, INECE is active in international enforcement networks, especially in North America.<sup>1233</sup> The activities improve the connection between governments and regulators through international conferences and promote regional networks through workshops, meetings, and training courses.<sup>1234</sup> Therefore, while INECE does not employ inspectors and enforcers, it is connected with more than 4,000 participants divided into working groups for project activities.<sup>1235</sup>

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<sup>1228</sup> Farmer (n 41) 250

<sup>1229</sup> Ibid

<sup>1230</sup> Pink (n 143) 28

<sup>1231</sup> Ibid

<sup>1232</sup> Ibid

<sup>1233</sup> Raustiala (n 1225)

<sup>1234</sup> Ibid

<sup>1235</sup> Savasan (n 305) 82-83

A study summarised three stages of INECE's development.<sup>1236</sup> In the first stage, covering 1985 to 1995, INECE's early activities included research projects on compliance monitoring and enforcement and a bilateral Memorandum of Understanding (MOU) between US EPA and Spatial Planning Instruments and the Environment. This was followed by a series of workshops and conferences, which focused on generating international commitment to build the capacity for compliance and enforcement as an essential element of environmental management and establishing a common set of definitions and a framework for exchange.<sup>1237</sup> The second stage of INECE was from the year of 1995 to 2005; in addition to continuing the work it began in the previous stage,<sup>1238</sup> INECE also improved and expanded its international conference series. As a key to achieving sustainability, interim thematic workshops were complemented by such conferences to educate practitioners and improve enforcement cooperation. Moreover, INECE re-launched its website to provide a greater focus on key work areas and its collection of resources on environmental compliance and enforcement.<sup>1239</sup> It is worth mentioning that INECE's major project at this stage was developing guidance on performance indicators for environmental compliance and enforcement programs. This included developing a comprehensive capacity-building program, which led to the training of large numbers of enforcement program managers worldwide.<sup>1240</sup>

After 2005, the most recent stage of INECE's work has emphasised two themes: (1) value creation by programmes in all areas of society and (2) the importance of

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<sup>1236</sup> Pink (n 143)

<sup>1237</sup> G Jo and others, 'Developing and Sustaining Environmental Compliance and Enforcement Networks: Lessons Learned on Environmental Compliance and Enforcement' in M Faure, P Smedt and A Stas (eds), *Environmental Enforcement Networks: Concepts, Implementation and Effectiveness* (Edward Elgar Publishing 2015) 336-338

<sup>1238</sup> INECE's compliance and enforcement pyramid has four levels: at the bottom level, compliance and enforcement are layered on top of the rule of law; at the mid-level, good governance is present; and at the peak, sustainable development is present.

<sup>1239</sup> Jo (n 1237) 339

<sup>1240</sup> Ibid

enforcement cooperation in strengthening environmental governance.<sup>1241</sup> The first theme of INECE aims to create value by instituting environmental compliance and enforcement programs. This will include creating public value by strengthening the rule of law and creating private value by ensuring investor confidence, protecting ecosystem goods and services, improving human health, reducing business risks, and increasing competition. Such value creation is achieved by further enforcement cooperation among government officials.<sup>1242</sup> Based on the two themes, INECE is advancing the goals of raising awareness and building capacity through, for example, summarising information and establishing a database and 'Library' on the INECE website for the public,<sup>1243</sup> as well as developing networks. Indeed, INECE highlights the best resources on compliance and enforcement for its site visitors.<sup>1244</sup>

New networks have been launched to support environmental compliance practitioners, including the Seaport Environmental Security Network (SESN) in 2008 and the INECE-IUCN Global Network of Environmental Prosecutors in 2011.<sup>1245</sup> Besides, INECE has strongly cooperated with and supported the development of regional networks, such as EANECE mentioned above,<sup>1246</sup> as well as Asian Networks and other networks in the Middle East, Eastern Europe, and West Africa.<sup>1247</sup>

### **7.2.3 INECE and Transfrontier Waste**

Networks like INECE address global issues to promote the effective enforcement of environmental law. They identify gaps across and within borders to detect, prevent,

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<sup>1241</sup> Ibid, 340

<sup>1242</sup> Ibid

<sup>1243</sup> The INECE Library contains Publications, INECE Regional and Partner Network Publications, Contribute Materials, Featured INECE Resources, and a Bibliography.

<sup>1244</sup> Ibid

<sup>1245</sup> Ibid

<sup>1246</sup> Please see the second paragraph of Chapter 7, 7.2.2.

<sup>1247</sup> Ibid

and control illegal shipments of hazardous waste, electronic waste, and ozone-depleting substances.<sup>1248</sup> In relation to the waste trading regime, INECE presented a workshop at its 8<sup>th</sup> International Conference in 2008, which led to the development of the Seaport Environmental Security Network (SESN). The SESN has worked on identifying and facilitating avenues of cooperation between and among port officials, including through two international inspection projects, workshops, and capacity-building activities.

National authorities requested the launch of SESN. Authorities believed that networks aimed at greater coordination, combined with specialised training on targeting and inspecting suspect shipments, could enhance the effective control of hazardous wastes and other wastes at seaports and also help in detecting illegal operations.<sup>1249</sup> There are two aspects of SESN activities: (1) information exchange on environmental compliance and enforcement, formally or informally;<sup>1250</sup> (2) enforcement network activities under SESN are undertaken by different governmental authorities, including the police and/or customs, where suspicious illegal shipments appear.<sup>1251</sup> However, enforcement actions are the responsibility of the relevant government actors.<sup>1252</sup> SESN is both an information network and arguably an enforcement network, as it is involved in inspections and monitoring that could lead to enforcement actions.

Since its establishment, SESN has identified how the network can be most effective in implementing capacity building, awareness raising and facilitating enforcement collaborations on ways to detect and control illegal transboundary shipment through seaports by closely working with partners, including governmental authorities and international organisations like the Secretariats of the Basel Convention, UNEP and

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<sup>1248</sup> Pink (n 143) 29

<sup>1249</sup> Ibid 157

<sup>1250</sup> Grabiel (n 11) 291-292

<sup>1251</sup> Ibid

<sup>1252</sup> Ibid



WCO.<sup>1253</sup> With these consultations, SESN established a work program to provide opportunities for enforcement officers to develop practical knowledge and skills.<sup>1254</sup> The work programme included a series of training workshops. For example, there were training workshops for frontline enforcement officers and supervisors in West Africa in 2008 and the organisation of two global enforcement operations in 2010 and 2012.<sup>1255</sup>

Although INECE is classified as an information network in Slaughter's classifications, it is wrong to think of such a network as having a single function. As the examples of INECE and SESN show, INECE does not only engage in information sharing and exchange activities, such as providing training workshops and developing publications. It also promotes enforcement networks such as SESN, which involves inspection projects with authorities from Africa, the Americas, Asia, and Europe.<sup>1256</sup>

In particular, SESN created a series of programmes to provide enforcement officers hands-on opportunities to promote knowledge and practical skills in detecting and preventing illegal transboundary waste movement.<sup>1257</sup> During the first Asian training session, SESN focused on providing education instructions, facilitating enforcement exercises, and developing cooperative tools to detect and prevent illegal trade in hazardous waste.<sup>1258</sup> Moreover, SESN emphasised the importance of intelligence-led enforcement as an enforcement tool and provided practical guidance on the topic.<sup>1259</sup> This first workshop, held in 2010 in Cambodia to support the SESN second inspection project, shared enforcement strategies and developed operational tools for

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<sup>1253</sup> Ibid 293

<sup>1254</sup> Ibid

<sup>1255</sup> Ibid

<sup>1256</sup> Two inspection projects were held during SESN's five years of operation: the first in 2010 and the second from December 2011 to April 2012

<sup>1257</sup> Grabel (n 11) 293

<sup>1258</sup> Ibid 295

<sup>1259</sup> Ibid

detecting and preventing illegal transboundary waste traffic.<sup>1260</sup> Thereafter, the second workshop organised by INECE with the co-sponsorship of the UNEP Regional Office for Asia and the Pacific (ROAP), provided an opportunity for INECE to present additional information on the inspection project and the tools and resources that were developed to support it. These two workshops involved environmental and customs officials from 14 countries in the Asia region.<sup>1261</sup>

### **7.3 Harmonisation Networks**

#### **7.3.1 General Introduction of Harmonisation Networks**

Harmonisation networks broadly contribute to the world order or common interest in environmental regulation, trade, communication, protecting public health, and several other areas by promoting the standardisation of national laws and processes.<sup>1262</sup> Slaughter stated that, with harmonisation networks, 'regulators may work together to harmonise regulatory standards, such as product-safety, with the overt aim of achieving efficiency'.<sup>1263</sup>

#### **7.3.2 IMPEL**

Slaughter referred to the European Union Network for the Implementation and Enforcement of Environmental Law (IMPEL) as a tangible example of a harmonisation network consisting of national environmental regulatory authorities across the European Union.<sup>1264</sup> IMPEL has developed a range of additional good practices, including compliance promotion, use of risk criteria and peer review.<sup>1265</sup>

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<sup>1260</sup> Pink (n 143)164

<sup>1261</sup> These 14 countries are Australia, Brunei, Cambodia, China, India, Indonesia, Japan, Lao, Malaysia, Pakistan, Philippines, Singapore, Thailand and Vietnam

<sup>1262</sup> Slaughter (n 1209)

<sup>1263</sup> Slaughter (n 109) 59

<sup>1264</sup> Pink (n 301) 21-23

<sup>1265</sup> M Sngelov and L Cashman, 'Environmental Inspections and Environmental Compliance Assurance Networks in the Context of European Union Environmental Policy' in M Faure, P D Smedt and A Stas (eds), *Environmental Enforcement Networks: Concepts, Implementation and Effectiveness* (Edward Elgar Publishing 2015) 354

IMPEL seeks to improve the way that EU environmental law is implemented and enforced, but its work is also broader than this.<sup>1266</sup>

IMPEL was established in 1992 as an informal network of Member States' regulatory and inspection authorities concerned with the implementation and enforcement of environmental law.<sup>1267</sup> Since then, IMPEL has developed a range of activities, including contributing to the effective implementation and enforcement of EU environmental law through information exchange, best practice sharing and awareness raising.<sup>1268</sup>

In Slaughter's definition of harmonisation networks, the role of IMPEL meets the meaning of the keyword 'harmonise', which could be understood as promoting common approaches among participants.<sup>1269</sup> IMPEL in the EU has created an impetus to ensure the effective application of environmental legislation, promote a mutual understanding of the common characteristics and differences of national regulatory systems, and enhance the exchange of information and experience between environmental authorities.<sup>1270</sup> One example is a series of projects called Doing the Right Thing (DTRT), which promotes a common understanding of EU member states' requirements to harmonise enforcement actions.<sup>1271</sup>

In addition, IMPEL works on developing and identifying best practices and producing guidance, tools, and common standards to contribute to improving and greater consistency in the various approaches to inspection, permitting, monitoring, reporting, and enforcement of environmental law.<sup>1272</sup> In accordance with the information from and experience of practitioners, IMPEL provides feedback and

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<sup>1266</sup> Farmer (n 41) 251

<sup>1267</sup> IMPEL <<https://www.impel.eu/about-impel/>> accessed September 2020

<sup>1268</sup> Ibid

<sup>1269</sup> Klaas (n 79)

<sup>1270</sup> Ibid

<sup>1271</sup> BIO Intelligence Service, Evaluating the IMPEL Networks and Its Work. (Final Project Report, 2013).

<sup>1272</sup> Ibid

advice to the European Commission regarding the practicability and enforceability of EU environmental law and explores innovative regulatory and non-regulatory instruments.<sup>1273</sup> In addition, IMPEL has established the Review Initiative (IRI) to review and evaluate national environmental inspection systems.<sup>1274</sup> IRI is a voluntary scheme developed by IMPEL networks to improve the processes and procedures of IMPEL member countries' environmental authorities. It also identifies areas of good practice and development opportunities.<sup>1275</sup>

Compared to INECE, IMPEL is a more formal network of environmental regulatory authorities from EU member states.<sup>1276</sup> Broadly, public authorities can apply for membership and participate in the benefits of networking, joint learning, sharing practices, capacity building, participating in projects and expert teams, engaging with external partners, and others, which can promote effective enforcement.<sup>1277</sup>

Similar to INECE's functions, IMPEL developed conferences and other projects and activities for EU member states involving information sharing and practitioners' education.<sup>1278</sup> IMPEL has also organised its work into five thematic areas: industry regulation, water and land, nature protection, cross-cutting tools and approaches, and waste and transfrontier shipment (TFS).<sup>1279</sup> For instance, the Conference on Waste Shipment and Management in 2013, organised by IMPEL, brought together inspectors and regulators from competent authorities and other organisations, including customs and the police. Moreover, representatives from waste-receiving

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<sup>1273</sup> Klaas (n 79)

<sup>1274</sup> Sngelov (n 1265) 372

<sup>1275</sup> IMPEL Review Initiative <<https://www.impel.eu/wp-content/uploads/2015/12/IRI-Abstract.pdf>> accessed September 2020

<sup>1276</sup> INECE is an informal network, but IMPEL is a formal network;

Lehane (n 306) 141

<sup>1277</sup> Members of IMPEL <<https://www.impel.eu/about-impel/becoming-a-member/>> accessed 25 July 2020

<sup>1278</sup> Ibid

<sup>1279</sup> S Chioggia, 'Environmental Crimes: A Focus on Illegal Transfer of Hazardous Waste' (Luiss Guido Carli Department of Political Science, 2017-2018) <[http://tesi.luiss.it/21751/1/078122\\_CHIOGGIA\\_SILVIA\\_Final%20Thesis%20Silvia%20Chioggia.pdf](http://tesi.luiss.it/21751/1/078122_CHIOGGIA_SILVIA_Final%20Thesis%20Silvia%20Chioggia.pdf)> accessed July 2020

countries like China also participated in the conference.<sup>1280</sup>

IMPEL's activities mainly focus on information and experience exchange regarding the implementation and enforcement of existing EU environmental legislation. Such work is generally undertaken through an individual project system.<sup>1281</sup> IMPEL members usually lead project activities that involve sub-set members as participants.<sup>1282</sup> Basecamp is a web-based project management tool and communication platform of IMPEL. All the competent European authorities are on Basecamp and can post documents, share a calendar, and have group discussions on different topics.<sup>1283</sup> For example, the 'Shipments of Waste Enforcement Action Project'(SWEAP)<sup>1284</sup> and 'Waste and TFS'<sup>1285</sup> can be found in Basecamp.<sup>1286</sup> Moreover, IMPEL has appointed an expert team to review inspection procedures and the role of inspectors in many member states.<sup>1287</sup> The final report is the project's output, and it makes recommendations for improvement that can benefit the participants by encouraging similar practices.<sup>1288</sup>

Furthermore, IMPEL has been active in identifying and promoting good practices in enforcement, including, for example, developing methodologies and issuing

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<sup>1280</sup> Klaas (n 79)

<sup>1281</sup> Farmer (n 41) 254

<sup>1282</sup> Ibid

<sup>1283</sup> Information is from Katie Olley, who is currently working in the Producer Compliance and Waste Shipment Unit, SEPA, 12 August 2020

<sup>1284</sup> SWEAP is a project led by IMPEL and co-funded by the European Commission LIFT Fund. It runs from September 2018 to June 2024. To support the circular economy by combating the illegal waste trade at the EU level, five main actions have been taken under the project, including training and capacity building for inspectors and law enforcement agencies, coordinating inspections, developing innovative tools, increasing international cooperation, and providing intelligence products. More information is available at SWEAP, <<https://www.sweap.eu>> accessed July 2022

<sup>1285</sup> 'Waste and TFS' refers to the Waste and TFS Expert Team, which aims to promote compliance with the European Waste Shipment Regulation and Waste Management Directives through enforcement, carrying out joint enforcement projects, knowledge exchange, practice and experience sharing, and stimulating a uniform enforcement regime. More information is available 'Waste and TFS', <<https://www.impel.eu/topics/waste-and-tfs/>> accessed July 2022

<sup>1286</sup> Such projects are easily found in the IMPEL web-based management system.

<sup>1287</sup> Farmer (n 41)

<sup>1288</sup> Ibid

guidance on inspections, organising workshops to ensure more harmonised and effective approaches by inspectors, and helping to carry out joint enforcement actions on an ad hoc basis.<sup>1289</sup> IMPEL played a particularly important role in developing and adopting the Recommended Minimum Criteria for Environmental Inspection (EU Member States) (RMCEI).<sup>1290</sup> IMPEL developed a practical guide on planning environmental inspections that would work across member states to improve compliance with the Recommendation (2001/331/EC) (RMCEI) requirements, providing for minimum criteria for environmental inspections adopted by the European Parliament and European Council in 2001.<sup>1291</sup> The RMCEI is an attempt to achieve operational standardisation around inspections in spite of legislative and policy differences.<sup>1292</sup>

Another example is a guidance manual IMPEL has drafted on the reimportation of hazardous wastes to the exporting country where illegal movement is detected.<sup>1293</sup> IMPEL has also formulated a practical guidance tool for inspecting 'upstream' waste sites and enhancing competent authorities' compliance with related waste laws in the IMPEL member countries.<sup>1294</sup> As a typical harmonisation network, 'choosing appropriate interventions alongside inspections to ensure compliance and achieve environmental outcome' generally reflects the role of IMPEL.<sup>1295</sup>

### **7.3.3 IMPEL and Transfrontier Waste**

As noted above, IMPEL works on different issues, including industrial installations, air, water, land, nature protection, cross-cutting tools and approaches, as well as

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<sup>1289</sup> M Angelo and L Cashman, 'Environmental Inspection and Environmental Compliance Assurance Networks in the context of European Union Environment Policy' in M Faure, P D Smedt and A Stas (eds), *Environmental Enforcement Networks: Concepts, Implementation and Effectiveness* (Edward Elgar Publishing 2015) 360-376

<sup>1290</sup> Ibid

<sup>1291</sup> Klaas (n 79)

<sup>1292</sup> Pink (n 143) 38

<sup>1293</sup> This point has been discussed more fully in Chapter 7, 7.3.3 below

<sup>1294</sup> Klaas (n 79) 127

<sup>1295</sup> Pink (n 143)

waste and TFS.<sup>1296</sup>

The stated aim of TFS and its functions are as follows:

The aim of the network is to promote compliance with the European Waste Shipment Regulation and Waste Management Directives through enforcement, to carry out joint enforcement projects, to promote the exchange of knowledge, best practices and experience with the enforcement of the regulations and directives and to stimulate a uniform enforcement regime. This is done by awareness raising and capacity building activities, facilitating inter-agency and cross-border collaboration and operational enforcement activities. Members of the cluster represent environmental authorities, but also customs and police services and other authorities that play a role in the enforcement of the transfrontier shipments and management of waste.<sup>1297</sup>

Globally, cooperation between the competent authorities who enforce waste shipment rules is inconsistent.<sup>1298</sup> To help address this problem, IMPEL-TFS has set up a network of frontline inspectors and administrators called National Contact Points (NCPs) to promote the enforcement of waste shipment regimes in Europe.<sup>1299</sup> The enforcement structure regarding waste shipment regulations across the European Economic Area is different. In fact, notifications and inspections are often the responsibility of different bodies, and multiple agencies or administrations might carry out inspections, as is the case in Germany. Additionally, networking between different regulators who are involved can vary considerably from country to country. The cooperation of NCPs is practical and positive in addressing these issues. The

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<sup>1296</sup> IMPEL Cluster Transfrontier Shipment of Waste, <<http://www.basel.int/Implementation/CountryLedInitiative/History/Combatingillegaltrafficismoreeffectively/EnforcementNetworks/IMPEL.TFS/tabid/2932/Default.aspx>> accessed 7 August 2020

<sup>1297</sup> Council Regulation (EC) No 1013/2006 (n 754)

<sup>1298</sup> UNEP, 'Waste Crime – Waste Risks: Gaps in Meeting the Global Waste Challenge -A UNEP Rapid Response Assessment' (UNEP, 2015) <<https://wedocs.unep.org/20.500.11822/9648>> accessed November 2022

<sup>1299</sup> IMPEL-TFS, <<https://www.impel.eu/projects/impel-tfs-ncp-best-practice-meeting-2015/>> accessed August 2020

The NCPs' status is still 'ongoing'. However, the best practice meetings were only updated to the year 2019

meetings of NCPs are held twice a year, and communication via online platforms is also frequent.<sup>1300</sup>

Furthermore, IMPEL seeks to harmonise the quality and structure of inspections in the European Economic Area by producing training materials and field manuals, even though individual agencies have differing priorities.<sup>1301</sup> An agency might concentrate on the illegal shipment of hazardous waste, while another might prioritise the import of low-quality recyclables. In addition, agencies hold different opinions about the classification of waste.<sup>1302</sup>

This difference of opinion has led to the most disagreements when countries intercept what they consider an illegal shipment. The country of dispatch may not agree with an intercepting authority that a particular consignment is a hazardous waste, which may cause a stalemate and leave waste containers trapped in limbo until a resolution is reached.<sup>1303</sup> To address these difficulties, IMPEL is amending its guidelines on the repatriation of waste to ensure that intercepted illegal waste shipments are dealt with in time.<sup>1304</sup>

## **7.4 Enforcement Networks**

### **7.4.1 Introduction**

Primarily, enforcement networks exist to enhance the collaboration of different national regulators in enforcing national laws and regulations in specific cases. Their focus is at the operational level. Regarding enforcement networks, Slaughter noted that:

*‘as the subjects they regulate - from criminals to corporations – move across*

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<sup>1300</sup> UNEP (n 1298)

<sup>1301</sup> Ibid

<sup>1302</sup> Ibid

<sup>1303</sup> Ibid

<sup>1304</sup> Ibid



*borders, they must expand their regulatory reach by initiating contact with their foreign counterparts.'*<sup>1305</sup> At a very concrete level, enforcement cooperation involves sharing information and collaboratively developing specific enforcement strategies in individual cases. The next step is cooperating in strategic priority setting and targeting.<sup>1306</sup>

#### **7.4.2 Enforcement Networks Link between Regulators**

According to Slaughter, enforcement networks address enforcement problems in cross-border cases, although cross-jurisdictional problems can exist within national boundaries.<sup>1307</sup> One early enforcement network involved enforcement cooperation regarding the transboundary movement of hazardous wastes between the US and Mexico.<sup>1308</sup> Similarly, in the UK, cooperation arrangements between the Environment Agency and SEPA are provided for water environment issues in Northumbria, the Solway Firth, and the River Tweed.<sup>1309</sup>

Initially, this cooperation between the US and Mexico was under the La Paz Agreement, which included the exchange of information from monitoring and spot-checking transboundary shipments.<sup>1310</sup> As the cooperation developed in practice, the US and Mexico added to the La Paz Agreement workgroups a new workgroup on cooperative enforcement strategy known as the enforcement workgroup. This workgroup focused on cross-cutting enforcement issues, with the goal of mutually

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<sup>1305</sup> Slaughter (n 109) 55

<sup>1306</sup> Ibid 56-57.

<sup>1307</sup> V Winship, 'Enforcement Networks' (2020) 37 (274) Yale Journal on Regulation 274

<sup>1308</sup> Kummer (n 438) 6-8

<sup>1309</sup> Water Environment (Water Framework Directive) (Northumbria River Basin District) Regulations 2003 SI 2003/3245;

Water Environment (Water Framework Directive)(Solway Tweed River Basin District) Regulations 2004 SI 2004/99;

Environmental Agency & Natural Scotland, 'The Challenges Facing our Water Environment in the Solway Tweed' (19 December 2019) < [https://www.sepa.org.uk/media/490772/20191218\\_solway-tweed-final2.pdf](https://www.sepa.org.uk/media/490772/20191218_solway-tweed-final2.pdf)> accessed 4 December 2022

<sup>1310</sup> SC Fulton and I Sperling, 'The Network of Environmental Enforcement and Compliance Cooperation in North America and the Western Hemisphere' (1996) 30 (1) International Lawyer 111

enhancing each party's enforcement capacity while respecting national jurisdiction and sovereignty.<sup>1311</sup> The first enforcement network action between the US and Mexico was in 1992, and it resulted in eight shut-down orders and four performance bond forfeitures.<sup>1312</sup> Besides, the enforcement network included cooperative training and technical assistance between Mexico and the US and helped the General Office for Environmental Protection of Mexico build its enforcement capacity.<sup>1313</sup> More than that, this network provided good practical experience, led to cooperative compliance monitoring, consultation, and exchange of enforcement results data, and finally promoted voluntary compliance.<sup>1314</sup>

There has been considerable development of cooperation and networking to deal with transnational environmental issues. A significant example is the International Consortium on Combating Wildlife Crime (ICCWC), established in 2010 and consisting of the International Criminal Police Organisation (Interpol), the United Nations Office on Drugs and Crime (UNODC), the World Customs Organization (WCO), the World Bank, and the Secretariat of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).<sup>1315</sup> From 2012 to 2015, ICCWC conducted Operation COBRA I, Operation COBRA II, and Operation COBRA III, with 21 countries participating in the enforcement activities in Operation COBRA II.<sup>1316</sup> In 2015, Operation COBRA III resulted in 139 arrests and more than 247 seizures, including elephant ivory, medicinal plants, rhino horns, pangolins, and many other plant and animal specimens.<sup>1317</sup> Thirty-seven countries

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<sup>1311</sup> Ibid

<sup>1312</sup> Ibid

<sup>1313</sup> Mexico's environmental enforcement authorities have reorganised into a new Secretariat of Social Development, with the General Office for Environmental Protection in charge of the environmental inspectorate.

<sup>1314</sup> Fulton (n 1310)

<sup>1315</sup> ICCWC, <[https://cites.org/eng/prog/iccwc\\_new.php](https://cites.org/eng/prog/iccwc_new.php)> accessed November 2020

<sup>1316</sup> 'CITES Secretariat Welcome Operation COBRA II Results'

<[https://cites.org/eng/news/sundry/2014/20140210\\_operation\\_cobra\\_ii.php](https://cites.org/eng/news/sundry/2014/20140210_operation_cobra_ii.php)> accessed November 2020

<sup>1317</sup> 'Successful Operation Highlights Growing International Cooperation to Combat Wildlife Crime', (ICCWC, 26 November 2022) <<https://cites.org/eng/node/18046>> accessed January 2023

reported seizures and arrests during the operation.<sup>1318</sup>

### **7.4.3 Enforcement Networks and Transfrontier Waste**

Enforcement networks aim to strengthen cooperation between national regulators and improve the enforcement of existing national laws and regulations.<sup>1319</sup> This is particularly important in transfrontier waste shipments because the regulatory subjects normally cross national borders. Therefore, regulators have to cooperate with institutions in other countries to ensure that enforcement can take place.<sup>1320</sup>

Moreover, the functions of enforcement networks, information networks, and sometimes harmonisation enforcement do not exist neatly in isolation.<sup>1321</sup> For example, INECE, an information network, acts as an enforcement network under specific projects, such as INECE SESN. Likewise, IMPEL, which is principally a harmonisation network, is also active in enforcement actions with regulators of different countries, such as IMPEL-TFS.

#### **7.4.3.1 INECE-The Role of Enforcement Network**

INECE's SESN also organised International Hazardous Waste Inspection Projects at Seaports in 2010, which was beneficial to participants in identifying gaps in inspection and enforcement programs.<sup>1322</sup> In support of such projects, SESN organised workshops at the regional level to build capacity and foster networking opportunities, such as the Asia region workshop conducted in Bangkok, Thailand, in 2012.

However, only two INECE SESN International Hazardous Waste Inspection Projects have been undertaken, with the second publishing its results and recommendations in

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<sup>1318</sup> Ibid

<sup>1319</sup> Slaughter (n 109)

<sup>1320</sup> Ibid

<sup>1321</sup> Ibid

<sup>1322</sup> Ibid 295

2012.<sup>1323</sup> The report stated that 95 percent of inspections involved national-level cooperation. Six reporting countries used intelligence-led enforcement. According to the countries' reports, 116 illegalities or infractions were found in 1016 containers - about 11 percent of those inspected. Additionally, 47 inspections were reported as requiring further investigation, as the wastes involved included plastic waste, paper/cardboard waste, metal scrap, and electronic waste.<sup>1324</sup>

After these two projects in 2020 and 2012, it is not possible to gather further information on the development of INECE SESN, and the fact sheet shows that the INECE SESN observers are not reachable.<sup>1325</sup>

#### **7.4.3.2 IMPEL-The Role of Enforcement Network**

It is clear that the TFS cluster is concerned with the transfrontier waste Shipment regime. The IMPEL-TFS cluster has conducted a series of practical enforcement projects to support cross-border control of waste shipments and target illegal and suspected illegal waste shipments.<sup>1326</sup>

Under the umbrella of IMPEL-TFS, the Seaport Project I & II and the Verification Project I & II ran from 2003 to June 2006. From 2006 to 2008, there was the Waste Enforcement Actions I Project and the European Enforcement Actions II Project from 2008 to 2012.<sup>1327</sup> Subsequent projects are the Enforcement Action III Project, which ran from 2012 to 2013, the Enforcement Action IV Project, which ran from

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<sup>1323</sup> INECE < <http://www.inece.org/>> accessed 7 August 2020.

<sup>1324</sup> INECE, 'Second International Hazardous Waste Inspection Waste at Seaports: Results and Recommendations' (December 2012)

<sup>1325</sup> 'Fact Sheet: International Network for Environmental Compliance and Enforcement: Seaport Environmental Security Network (INECE SESN)' <<http://www.basel.int/Implementation/LegalMatters/CountryLedInitiative/OutcomeofCOP10/Combatingillegaltraffimoreeffectively/EnforcementNetworks/INECESESN/tabid/2933/Default.aspx>> accessed 2 August 2020; however, their website, <http://www.inece.org/seaport>, cannot be found.

<sup>1326</sup> IMPEL, 'IMPEL-TFS Enforcement Actions Project Report 2014-2015: Enforcement of the European Waste Shipment Regulation' (March 2016) <<http://www.impel.eu/projects/enforcement-actions/>> accessed August 2020

<sup>1327</sup> IMPEL, 'IMPEL-TFS Enforcement Actions Project Report 2016-2017: Enforcement of the European Waste Shipment Regulation' <<http://www.impel.eu/projects/enforcement-actions/>> accessed August 2020

2014 to 2015, and the Enforcement Action V Project, which ran from 2016 to 2017.<sup>1328</sup> However, the status of the Enforcement Actions Projects shows that they were completed in 2018.<sup>1329</sup>

The objectives of the Enforcement Actions Projects from 2014 to 2018 included carrying out inspections on waste shipments, knowledge exchange, and capacity building to harmonise the level of enforcement within the participating countries.<sup>1330</sup> Communication between participating countries has been carried out through the exchange of inspectors, case studies, webinars, best practices, and online surveys through Basecamp, the TFS's online communication platform.<sup>1331</sup>

As revealed in the Enforcement Actions Project Report, joint activities were carried out over six inspection periods during 2014 and 2015, with 31 countries participating.<sup>1332</sup> The number of participants in the country increased to 34 between 2016 and 2017.<sup>1333</sup> Compared with the project numbers in Enforcement Actions Project 2014-2015 and Enforcement Actions Project 2016-2017, physical and administrative transport inspections increased from 17,183 to 22,270. Regarding such physical and administrative transport inspections, 5,831 (26 percent) were related to transfrontier waste shipment in Enforcement Actions Project 2016-2017. This proportion is lower for waste inspection than in Enforcement Actions Project 2014-2015, of which it was reported that 4,329 (28.7 percent) were waste-related.<sup>1334</sup> In addition, the total number of company inspections relating to transfrontier waste shipment under the Enforcement Action Project 2016-2017 was 792, whereas 486

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<sup>1328</sup> Ibid

<sup>1329</sup> IMPEL-TFS, 'Enforcement Actions' <<https://www.impel.eu/projects/enforcement-actions/>> accessed September 2020

<sup>1330</sup> Chiiggia (n 1279)

<sup>1331</sup> Ibid

<sup>1332</sup> IMPEL (n 1326)

<sup>1333</sup> IMPEL (n 1327)

<sup>1334</sup> Ibid

were carried out in Project 2014-2015.<sup>1335</sup>

The data presented show that more countries were involved in the TFS Enforcement Actions Project from 2014 to 2017. For example, Switzerland, Scotland, England, and the Netherlands provided full-year data for the inspection period. This is to get a fuller picture of emerging trends in waste shipments and also to provide a clearer view of the daily work of competent authorities and their inspection methods.<sup>1336</sup>

TFS has long sought to encourage port-to-port enforcement cooperation through projects in the EU. Measures taken have included coordinated inspections of waste shipments to reveal problematic routes, streams, and destinations, exchanges of frontline inspectors during inspection periods in order to strengthen capacity at ports, and the re-drafting of the existing IMPEL-TFS Manual addressing 'the return of illegal shipments of waste'. It is difficult to confirm whether inspectors gained increased knowledge during these inspector exchanges and port-to-port cooperation.<sup>1337</sup>

However, crucial information about enforcement networks will inevitably not be publicly available because the agencies involved desire to minimise the number of operational details available to ensure that the enforcement processes remain confidential and away from the eyes of sophisticated criminal gangs.

Another TFS project, the IMPEL-TFS Prosecutors Project, is worth mentioning.<sup>1338</sup>

Prosecution is essential for enforcement and compliance procedures. EU Directive 2008/99<sup>1339</sup> requires the EU member states to enforce the Waste Shipment

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<sup>1335</sup> Ibid

<sup>1336</sup> Ibid

<sup>1337</sup> Pink (n 143) 186

<sup>1338</sup> IMPEL, 'TFS Prosecutors Project (2012-2015): Project Description and Aims'

<<https://www.impel.eu/en/projects/tfs-prosecutors-project>> accessed August 2020

<sup>1339</sup> Article 3 (c), 'Directive 2008/99/EC (n 419), Article 3 (c)

Regulation (WSR)<sup>1340</sup> by criminal law, which in turn also requires that prosecutors across the EU cooperate and collaborate in a structured network, exchange experience and good practice, and align prosecution actions with EU environmental law and regulations to ensure greater uniformity of approach in the EU.<sup>1341</sup>

Therefore, the IMPEL-TFS Prosecution project was established in 2012 and involved developing a database for the exchange of non-operational information between prosecutors and legal units of inspectors, such as prosecution information like fine levels, prosecution approach, and interpretation.<sup>1342</sup> The IMPEL-TFS Prosecutors Project also organised a workshop for prosecutors in 2005, which strengthened ties with IMPEL, the Basel Secretariat, and Eurojust.<sup>1343</sup>

#### **7.4.3.3 Enforcement Networks Actions and Operation for Transfrontier Waste in China and UK**

National agencies often prefer network-organised enforcement actions or operations, or those involving networks to control transfrontier waste, over routine enforcement because network-organised actions are given priority.<sup>1344</sup> These actions and operations help enforcement agencies and authorities focus on particular issues during specific timeframes, which can assist enforcement bodies in addressing bottlenecks through various means. Allocating resources during actions and operations may be more feasible than doing so within standard personnel and financial limitations because of the priority that the network-derived action brings. Additionally, such initiatives can enhance awareness, establish collaborative mechanisms, and foster inter-agency cooperation.<sup>1345</sup> For example, the enforcement

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<sup>1340</sup> Council Regulation (EC) 1013/2006 (n 754)

<sup>1341</sup> Ibid

<sup>1342</sup> Ibid

<sup>1343</sup> Eurojust, <<https://www.eurojust.europa.eu>> accessed January 2023; Eurojust is the European Union Agency for Criminal Justice Cooperation

<sup>1344</sup> N Liu and others, 'Improvements to Enforcement of Multilateral Environmental Agreement to Control International Shipment of Chemical and Wastes' (2016) 34 (6) Waste Management & Research 502-501

<sup>1345</sup> Ibid

operation codenamed Operation Demeter ran from 2009 to 2014 and involved three actions. It built very efficient enforcement networks to contribute to combating illegal shipments of hazardous wastes and other wastes from the EU to the Asia-Pacific region and African countries.<sup>1346</sup> During Operation Demeter, the Secretariat of Basel Convention, IMPEL, WCO Regional Intelligence Offices (RILO)<sup>1347</sup>, INECE,<sup>1348</sup> and over 60 countries participated in the operation.<sup>1349</sup> 500 intelligence messages were exchanged through the Customs Enforcement Network Communication Platform (CENcomm) during the operation.<sup>1350</sup> China proposed Operation Demeter III through China Customs, which the WCO organised in 2013. During Operation Demeter, over 30,000t and 1,500 pieces of illegal hazardous waste were seized in 57 cases.<sup>1351</sup> Although there is insufficient documented analysis of actions following Operation Demeter, its ongoing nature can be observed on the website of the WCO. The latest recorded instance was Demeter IX in October 2023.<sup>1352</sup>

In addition, IMPEL-TFS undertakes enforcement in the EU to combat the transboundary movement of hazardous waste under the European Waste Shipment

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<sup>1346</sup> Ibid

Operation Demeter is not only run for three actions. The data for some of the actions is not available, even if you search for 'Operation Demeter' on the WCO website, 'Operation Demeter',

<https://www.wcoomd.org/en/search.aspx?keyword=Operation+DEMETER>> accessed March 2024

<sup>1347</sup> RILO is a Global Intelligence Network established by WCO in 1987;

RILO, <https://www.wcoomd.org/en/topics/enforcement-and-compliance/activities-and-programmes/intelligence-and-risk-management-programme/rilo.aspx>> accessed March 2024

<sup>1348</sup> INECE was involved in Operation Demeter II but not in Operation Demeter I.

<sup>1349</sup> WCO, 'Operation Demeter Executive Summary, Customs Joint Operation to Combat Illegal Transboundary Movement of Waste between Europe, Asia/Pacific and Africa' (23 March -11 May 2009)

[https://www.wcoomd.org/-/media/wco/public/global/pdf/topics/enforcement-and-compliance/activities-and-programmes/environmental-crime/ex\\_sum\\_demeter\\_en.pdf](https://www.wcoomd.org/-/media/wco/public/global/pdf/topics/enforcement-and-compliance/activities-and-programmes/environmental-crime/ex_sum_demeter_en.pdf)> accessed March 2024

<sup>1350</sup> CENcomm (n 734);

See also Chapter 4, 4.3.2.1 about the Green Customs Initiative.

<sup>1351</sup> Liu (n 1344)

<sup>1352</sup> WCO, 'Operation Demeter IX Demonstrate a Growing Interest From WCO members in Fighting the Trafficking of Waste and Ozone Depleting Substances', (1 December 2023)

<https://www.wcoomd.org/en/media/newsroom/2023/december/operation-demeter-ix-in-fighting-the-trafficking-of-wastes-and-ozone-depleting-substances.aspx>> accessed March 2024



Regulation (WSR) by the Shipments of Waste Enforcement Action Project (SWEAP).<sup>1353</sup> For example, the Shipments of Waste Enforcement Action V Project made valuable achievements during 2016 and 2017.<sup>1354</sup> The Enforcement Action V project involved over six inspections at ports, railways, roadsides and known waste facilities, along with completed inspection forms, which were subsequently sent to the Scottish Environment Protection Agency (SEPA) for compilation and analysis. This project involved inspection, knowledge sharing, and other capacity building to harmonise the level of enforcement and expertise within the participating countries.<sup>1355</sup> The Enforcement Action V Project issued a report that identified a decreasing trend of illegal transboundary movement of waste within the EU, while violations with destinations in Africa and Asia showed an increasing trend; 67 percent of participating countries reported prosecutions for illegal waste shipment following the inspections, with most cases being closed before trial. The finding of Enforcement Action V has directed attention towards further inspection and enforcement and provided a basis for a subsequent phase of the project.<sup>1356</sup>

## **7.5 Contribution of Networks to Enforcement Themes and Analysis**

### **7.5.1 Independence of Regulators**

From the previous discussion on how networks contribute to effective enforcement,

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<sup>1353</sup> SWEAP (n 1284);

See also, European Commission, ‘Shipments of Waste Enforcement Actions Project’ <<https://webgate.ec.europa.eu/life/publicWebsite/project/LIFE17-GIE-BE-000480/shipments-of-waste-enforcement-actions-project>> accessed March 2024.

<sup>1354</sup> Shipments of Waste Enforcement Action Project, <<https://webgate.ec.europa.eu/life/publicWebsite/project/LIFE17-GIE-BE-000480/shipments-of-waste-enforcement-actions-project>> accessed March 2024

There were previous enforcement actions of SWEAP from 2006 to 2013; however, the sources are hard to find out, except a summary webpage shows Enforcement Actions I-III,

<<https://www.impel.eu/en/projects/enforcement-actions-i-iii>> accessed March 2024

<sup>1355</sup> SEPA, ‘European Waste Shipment Regulation: Enforcement Action V Project’ (April 2019)

<[https://www.environment.gov.scot/media/2483/wds\\_case\\_study\\_ewsr\\_enforcement\\_actions\\_v.pdf](https://www.environment.gov.scot/media/2483/wds_case_study_ewsr_enforcement_actions_v.pdf)> accessed March 2024

<sup>1356</sup> Ibid

the main functions of the networks considered focus on intelligence sharing, technical assistance, and enhancing cooperation of different regulators, among other networking roles. However, there is no direct evidence showing that the networks contribute to the enhancement of regulator independence.

In the EU, driven by IMPEL, ‘Recommendation on minimum criteria for environmental inspection’ (RMCEI)<sup>1357</sup> is an attempt to achieve operational standardisation by removing legislative and political differences.<sup>1358</sup> As discussed earlier in this thesis, regulator independence is one of the key themes of enforcement, including legislation that secures some degree of independence.<sup>1359</sup> It is difficult to say that RMCEI is an example of such legislation, but it could serve as a soft law guideline for national legislation in the European Union. Perhaps, at most, it can be said that through events such as conferences and workshops, the benefits of relatively independent regulators can potentially be showcased to those operating within a more constrained framework. Further research would be needed to establish if any such showcasing resulted in any less independent regulators gaining further independence.

## 7.5.2 Capacity Building

There are several examples of networks contributing to capacity building on enforcement. The most obvious example is INECE.

INECE summarised the activities and tools needed to meet capacity building under the waste trading regime, including strengthening the relevant legal framework,

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<sup>1357</sup> IMPEL, ‘Development of an easy and flexible risk assessment tool as a part of the planning of environmental inspections linked to European environmental law and the RMCEI (easy Tools)’ <https://www.impel.eu/projects/development-of-an-easy-and-flexible-risk-assessment-tool-as-a-part-of-the-planning-of-environmental-inspections-linked-to-european-environmental-law-and-the-rmcei-easytools/> accessed October 2020.

<sup>1358</sup> Pink (n 301) 26.

<sup>1359</sup> Please see Chapter 6, which discusses the independence of legislation as an element of independent regulators.

strengthening the institutional framework, cooperation at the national level, awareness raising, establishing prior informed consent mechanisms, providing practical guidance, addressing legal interpretation issues, developing adequate inspection methods, facilitating information and intelligence exchange, threat and risk assessments, guidance on waste versus non-waste, prosecution, providing technical expertise and equipment, and ensuring international cooperation, among others.<sup>1360</sup>

A typical example of information networks that enhance capacity building is the workshops of INECE SESN. The second workshop in Bangkok provided instruction and demonstration at a port in order to enhance the knowledge of participants and raise awareness about the illegal trade in hazardous waste among enforcement officials in the region.<sup>1361</sup> SESN developed a series of tools and publications to guide the implementation of their project, in addition to workshops. These included project-specific operational guidance documents, a web-based collaboration tool, a contact list of officials in participating countries, and operational guidance for the return of detected illegal waste shipments.<sup>1362</sup> All such information was presented in the SESN final report Annex 1 for capacity building tools and resources.<sup>1363</sup>

Enhancing customs capabilities plays a pivotal role in environmental law enforcement networks. Currently, national and international crime syndicates worldwide generate an estimated income of approximately 20 to 30 billion USD annually from activities such as hazardous waste dumping, smuggling restricted hazardous materials, and trafficking protected natural resources.<sup>1364</sup> Illegal

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<sup>1360</sup> Isarin (n 54)

<sup>1361</sup> INECE (n 1324)

<sup>1362</sup> Ibid

<sup>1363</sup> Ibid Annex 1

<sup>1364</sup> Green Customs Initiative Secretariat, 'The Green Customs Initiative: Capacity Building for Environmental Security'

<[https://assets.ippc.int/static/media/files/publication/en/2016/11/The\\_Green\\_Customs\\_Initiative\\_for\\_IPPC.pdf](https://assets.ippc.int/static/media/files/publication/en/2016/11/The_Green_Customs_Initiative_for_IPPC.pdf)> accessed March 2024

international trade poses a significant global issue with severe consequences, with customs and border protection officers serving as the primary line of defence against transboundary illegal trade. The GCI, more fully discussed in Chapter 4 above, as a network, aims to strengthen the capacity of customs officials. Training and awareness-raising constitute integral components of this capacity-building endeavour. Given the high cost and time-consuming nature of training, coordinated training under the GCI presents an effective solution.<sup>1365</sup>

As a result of these activities, some countries reported collaboration between responsible authorities, for example, by enabling ‘staff sharing’ or leveraging staff from one agency to support those in another relevant agency for the benefit of both agencies.<sup>1366</sup>

### **7.5.3 Deterrence**

The role of networks in enhancing deterrence was reflected in different projects, such as Operation COBRA mentioned above.<sup>1367</sup>

Besides IMPEL's TFS, there is another example of a project dealing with waste control regime, which is the Waste Force project. The Waste Force Project terminated at the end of 2020 after running for two years.<sup>1368</sup> IMPEL TFS completed the Enforcement Action Projects in 2018, and the results have shown that there is still a huge gap in compliance with waste management and waste shipment regulations. For instance, there are unequal inspection and enforcement regimes in the EU and a lack of skills and knowledge of regulators when dealing with illegal

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<sup>1365</sup> Ibid;

see also chapter 4, 4.3.2.1, the activities of GCI

<sup>1366</sup> INECE (n 1324)

<sup>1367</sup> Please see the above in this chapter, s 7.4.2

<sup>1368</sup> ‘IMPEL Targets Waste Crime’ (SEPA, 24 May 2019) <[https://www.sepa.org.uk/regulations/waste/life-smart-waste/news-and-events/2019\\_impel/](https://www.sepa.org.uk/regulations/waste/life-smart-waste/news-and-events/2019_impel/)> accessed September 2020

exports of wastes destined for outside the European Union.<sup>1369</sup> While the Waste Force Project is not a direct continuation of the Enforcement Action project, both are targeted at the enforcement of illegal trade-in and shipment waste regimes.<sup>1370</sup> IMPEL plays a slightly different role from that played by the Enforcement Action Project and the Waste Force Project. IMPEL established the Enforcement Action Project, but it is also involved in the Waste Force Project, which is the coordinating beneficiary.<sup>1371</sup>

#### **7.5.4 Analysis of Networks**

According to the literature,<sup>1372</sup> the role of networks is becoming increasingly important in ensuring effective enforcement of environmental law. However, it faces several challenges that need to be addressed, such as lack of funding, which causes projects to be unsustainable, and difficult relationships between networks and national environmental agencies.

##### **7.5.4.1 Analysis of INECE**

Firstly, as the above discussions of INECE show, especially on the transfrontier waste regime, INECE has had a significant impact on environmental enforcement since its establishment. The contribution of INECE is not only with respect to its conferences and workshops but also specific projects to enhance enforcement, such as SESN. INECE plays an indispensable role in developing environmental law enforcement regimes.

One important role of INECE is strengthening international, regional, and national enforcement networks, such as those in China and Jordan.<sup>1373</sup> However, the

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<sup>1369</sup> 'Waste Force-IMPEL' <<https://www.wasteorceproject.eu/partners/consortium-partners/impel/>> accessed September 2020

<sup>1370</sup> 'Waste Force' <<https://www.wasteorceproject.eu/about-sweap/>> accessed September 2020

<sup>1371</sup> Waste Force-IMPEL (n 1369)

<sup>1372</sup> UNEP (n 38)

<sup>1373</sup> Jo (n 1237) 341

weakness in its role is that international organisations fund such activities, and funding is tight given economic constraints.<sup>1374</sup> Another role of INECE is strengthening coordination, with the aim of developing necessary tools for preventing and resolving transboundary environmental problems. Coordination also enables enforcement and program administration officers, policymakers, public prosecutors, judicial officers, and organisations and NGOs to work together.

In addition, projects such as SESN, established in 2008 and completed in 2012, included two stages.<sup>1375</sup> It can be seen that the INECE SESN project achieved great success, but it was not sustainable. Illegal transboundary waste movement is still a threat to global environmental protection, and enforcement of laws and regulations on transfrontier waste still requires strong networks such as SESN. SESN published a report and recommendations as part of the final stage of the project, but there was no scope for further development of the project because of lack of funding. Similar problems can also be found in IMPEL projects, such as the TFS Prosecutors Project.<sup>1376</sup>

Furthermore, INECE has indeed contributed to the enhancement of the three key themes of environmental enforcement. First, bringing together regulators in conferences, training workshops, and projects could contribute to their independence, to an extent, as it provides an independent forum for their development and cooperation. Secondly, it seems clear that information sharing, training activities, and projects such as SESN contribute to building the capacity of regulators. Thirdly, while information sharing around enforcement practices can indirectly contribute to enforcement deterrence, there is little doubt that the promotion of a project such as SESN more directly contributes to that theme. However, the challenge for INECE is to continue with such activities in order to achieve its goals effectively. INECE is not

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<sup>1374</sup> Zerrin (n 1219)

<sup>1375</sup> See above the INECE and Transfrontier Waste in this chapter.

<sup>1376</sup> TFS Prosecutors Project run from 2012 to 2015, see IMPEL (n 1226)

a governmental or intergovernmental organisation; its budget is limited, and it cannot continue a project such as SESN after the project period and budget ends.

#### **7.5.4.2 Analysis of IMPEL**

IMPEL has a highly participatory management structure supported by a small permanent secretariat. This ensures both a wide consensus for its work and practical implementation. However, it can also result in some delays in moving work forward. The lack of a hierarchy in IMPEL means that IMPEL is often very dependent on the initiative of particular members, which in turn can result in a problem of focus.<sup>1377</sup>

According to IMPEL's report, the main contributions of IMPEL projects to member countries, as reported by members of IMPEL and external stakeholders, are the provision of valuable recommendations and guidance on how to implement better and enforce existing EU environmental legislation and for serving as a platform for the exchange of information.<sup>1378</sup> This is useful not only for member states but also for accession countries, which can get assistance from IMPEL to fulfil the requirements of the EU.<sup>1379</sup>

Besides these positive aspects, stakeholders also mentioned a range of problems in the same report.<sup>1380</sup> One is that most member states are inactive, with a few dominating IMPEL's activities. Since the network came into existence, more than half of all IMPEL projects have been led and directed by just a few member states. Also, older member states are generally more active in IMPEL because, for example, the UK or the Netherlands have sophisticated inspectorates with a solid organisational basis that allows for continuous project work.<sup>1381</sup> The position of the

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<sup>1377</sup> Farmer (n 41) 254

<sup>1378</sup> BIO Intelligence Service (n 1271)

<sup>1379</sup> Ibid

<sup>1380</sup> Ibid

<sup>1381</sup> Ibid

UK in IMPEL might change after Brexit, but it may not happen so soon.<sup>1382</sup> Until the end of 2022, IMPEL's membership consisted of 55 environment authorities of 36 countries. Besides 27 EU member states, there are also 8 non-EU members, including Turkey and Iceland.<sup>1383</sup>

Meanwhile, membership fees of IMPEL are also a barrier to participation for some countries, even though the EU did not provide exact details of this issue in the report.<sup>1384</sup> Other reasons for inadequate participation are language barriers and a lack of support from upper management levels nationally, as membership and participation in IMPEL in some member countries is simply not a priority.<sup>1385</sup>

Regarding agenda setting, IMPEL, in theory, has the autonomy to decide on its project work. In reality, however, both the European Commission and the national agencies influence the subject areas and types of projects carried out.<sup>1386</sup> The Commission is a significant economic contributor in monetary terms.<sup>1387</sup> It does not dictate what projects should be carried out, but sometimes, it can be difficult for national experts to initiate projects without the acceptance of the Commission.<sup>1388</sup>

Another problem for the relationship between IMPEL and enforcement agencies is the difference in priorities among the various Directors-Generals (DGs) of the European Union, for example, DG Environment<sup>1389</sup> may not have the same priorities as DG Justice. In addition, there is significant turnover and redeployment within the staff of the Commission, so the relevant contact person is sometimes difficult to

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<sup>1382</sup> Bar Council Brexit Working Group issued a Brexit Paper Environmental Law and Regulation Paper 28 in 2019, but there is no sign that the position will largely change.

<sup>1383</sup> About IMPEL, <<https://www.impel.eu/en/about-impel/members-and-observers>> accessed November 2020

<sup>1384</sup> Klaas (n 79)

<sup>1385</sup> Ibid

<sup>1386</sup> Ibid

<sup>1387</sup> Angelov (n 1289)

<sup>1388</sup> Ibid

<sup>1389</sup> The Directorate-General for the Environment is one of the more than 40 Directorates-General and services that make up the European Commission. Commonly referred to as DG Environment; 'EU-European Commission – DG Environment' <<https://actionguide.info/m/orgs/8/>> accessed October 2020



identify, and this creates a lack of consistency in direction.<sup>1390</sup>

## 7.6 Conclusion

This chapter is significant for the entire thesis and is closely connected with Chapter 6 on the key themes of enforcement and hazardous waste shipment regimes. The theory of networks adopted is based on Slaughter's theory of the networking of global governance.<sup>1391</sup> This chapter analysed the three types of networks: information networks, harmonisation networks and enforcement networks.

Slaughter classified and defined these different types of networks,<sup>1392</sup> and Pink gave examples of INECE as an information network and IMPEL as a harmonisation network.<sup>1393</sup> Enforcement networks cannot be understood as a specific organisation in the same way as information networks and harmonisation networks. However, INECE and IMPEL not only function as one type of network alone but also play the role of enforcement networks in particular projects.<sup>1394</sup>

This chapter also analysed how networks are involved in the hazardous waste shipment regime. In any type of network, there is normally a sub-network or project dedicated to managing hazardous waste shipments. INECE established the SESN as an intelligence sharing and other information and idea exchanging platform. Within harmonisation networks like IMPEL, TFS was established as the cluster working to harmonise regulatory standards between different nations, agencies, and organisations to enhance the enforcement of transfrontier waste regimes. The role of INECE and IMPEL as enforcement networks was also considered in this chapter, which examined their activities under various projects, including the International Hazardous Waste Inspection Project organised by INECE SESN, and the Waste

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<sup>1390</sup> BIO Intelligence Service (n 1271)

<sup>1391</sup> Slaughter, *supra* n.109

<sup>1392</sup> *Ibid*

<sup>1393</sup> Pink (n 301) 21

<sup>1394</sup> *Ibid*

Enforcement Action Project and Enforcement Action Project run by IMPEL TFS. All these projects have contributed towards better enforcement under the transfrontier waste regime.

The significant part of this chapter is the analysis of how networks contribute to the enforcement of environmental law and regulation on transfrontier waste. The chapter addressed three key themes of enforcement, which are independence of regulator, capacity building and deterrence,<sup>1395</sup> the contribution of networks to enforcement could be understood from the perspective of how networks contribute to improving the key themes of enforcement. Although capacity building is common to all such networks<sup>1396</sup> and deterrence has been displayed by operations and projects, strengthening the independence of regulators by networks could not easily be proved by reason of lack of direct evidence. Therefore, networks could enhance enforcement through at least two of the three key themes of enforcement.

Although networks play a significant role in the enforcement of environmental laws and regulations, they also face barriers, which include the focus on projects which have limited budgets and timescales, the activities of which are, therefore, hard to sustain beyond the project end dates. In addition, some members of networks are not active for reasons including a lack of strong organisational support from the upper management level in the country, funding and language barriers.

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<sup>1395</sup> Please see Chapter 6 of this thesis

<sup>1396</sup> Pink (n 301) 22-23



## Chapter 8 Conclusion

### 8.1 Introduction

Considering the efficacy of environmental legislation is not merely a question about how it is designed but also whether it is effectively enforced.<sup>1397</sup> This study aimed to establish the dilemma of environmental law enforcement from the perspective of the enforcement of the Basel Convention and also facilitate an understanding of the role of networks in environmental law enforcement. This research also aimed to establish how networks can improve the effectiveness of environmental law enforcement, especially under the Basel Convention on hazardous wastes. In addition, the thesis has examined these issues within the context of environmental enforcement in China and the UK, with China mainly being a waste import country and the UK being a waste export country. This approach provided a comparative insight into the similarities and differences in enforcement structures and practices between two exceptionally different jurisdictions. It showed whether and how networks might assist in different ways to promote enforcement in the two states.

This research reviewed previous and current enforcement and network theories and practices at the international level, as well as in China and the UK. The research further touched on the need for China and the UK to strengthen networks and improve their enforcement capacity to achieve better enforcement rather than relying merely on providing more deterrence. Further, this research affirms the positive role of networks in environmental enforcement.

This research revealed the weakness of environmental law enforcement, both at the international and national levels, in China and the UK. Although the discussion in the research is focused on the Basel Convention on the transboundary movement of

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<sup>1397</sup> N Gunningham, 'Enforcing Environmental Regulation' (2011) 23 (2) *Journal of Environmental Law* 169

hazardous wastes, the argument also mentions other environmental treaties, for instance, the Montreal Protocol in Chapter 2. This research unravelled several key themes of enforcement, which in turn led to the discussion of how to improve enforcement through the enhancement of those key themes. The key themes not only relate to enforcement practices but also to underpinning legislation and institutions.

## **8.2 Summary of Key Points of the Thesis**

In the first chapter of this thesis, the research question was posed as to whether and how enforcement networks can enhance the enforcement of the Basel Convention on transboundary shipment of hazardous waste. The background of the Basel Convention is introduced in this chapter, along with critical issues and failings in its enforcement, which motivated this research. Essential definitions, including the definition of enforcement, are provided. The core of the research is based on Slaughter's theory of network governance. However, a wide range of literature was also considered, including general material on the Basel Convention, illegal waste trade, national jurisdiction, cross-jurisdiction, prosecution and enforcement, as well as networks. The literature review pointed to a gap in terms of examining the potential for networks to enhance environmental law enforcement, particularly in the context of the Basel Convention, and this helped to set the methodology for this thesis.

Chapter 2 considered the examination of what enforcement is building upon the definition in Chapter 1, who enforces environmental law and how it is enforced to provide a clear framework. Then, it proceeded to consider what amounts to effective enforcement. Enforcement is not only narrowly about penalties or compensation but also more broadly about other forms of dealing with non-compliance, including inspection and persuasion. This chapter considered the scenarios in which international enforcement can take place and the parties that may play different roles in enforcement, which include states, international organisations, and non-state

actors.

Chapter 2 presents the general international environmental law enforcement mechanisms, and the enforcement mechanisms here are based on many international environmental law instruments such as CITES and the Nuclear Civil Liability Convention. This chapter also revealed that international environmental law enforcement mechanisms, such as financial assistance, depend on soft methods. It was also noted that negotiation is generally the preferred way of resolving non-compliance issues. This is because many international environmental law instruments are relatively 'soft' and lack powerful institutions, so international enforcement mechanisms for non-compliance usually involve more diplomatic means. Then, the general differences between international law enforcement and national law enforcement were discussed, along with the different enforcement approaches, including carrot-stick and responsive regulation approaches. This laid the foundation for a robust discussion on the key themes in enforcement, which literature suggests must be addressed for enforcement to be effective. These key themes were identified as the independence of regulators, the capacity of regulators, and deterrence, in particular, the deterrence effect.

Chapter 3 mainly discussed the relevant international legislation and its development. Firstly, the international legal regime on the transboundary movement of hazardous waste was introduced. Although the Basel Convention is the key instrument in that regard, other regional conventions, such as the Lomé Convention (IV) and the Bamako Convention, were considered. The chapter reviewed the definition of hazardous waste, which, along with the concept of ESM, arguably provides a level of uncertainty at the heart of the regime, which may impact enforceability. The analysis focused on the main content of the Basel Convention, including the Basel Ban, ESM, PIC, civil liability and compensation and prevention measures. Consideration was also given to the proceedings of the conferences of the parties, at which one of the

most common discussion topics was the difficulty of enforcement.

An argument was made at the end of the chapter to point out that certain major concepts and standards are unclear, and some provisions conflict. Such uncertainties lead to enforcement difficulties where infringements may have occurred. In addition, because the liability and compensation provisions are arguably inadequate and have not yet come into force, that system is not yet helpful in enforcing the Convention. As a result, there is no powerful international institution to enforce the law; as such, enforcement remains principally reliant on national laws and regulations. However, this does not mean that international environmental law lacks efficacy in controlling environmental damage. To a reasonable extent, it serves as a framework for national legislation and institutions, facilitates soft forms of international enforcement, and enables nations to negotiate and cooperate. Significantly, cooperation has been highlighted at every conference of parties through decisions. For example, BC10/15 is International Cooperation and Coordination; BC11/17 is Cooperation between the Basel Convention and the International Maritime Organization. Cooperation leads to networks that can potentially secure agreement on a common approach to some of the issues identified above, such as definitions or standards, and enhance enforcement.

Discussion in Chapter 4 followed the previous two chapters, which are international and national enforcement mechanisms under the Basel Convention. Although the Basel Convention reflects general international environmental law enforcement, the Convention also provides more specific and effective means of enforcement, for instance, the provision made for civil liability under the Basel Convention. The Basel Convention also requires parties to criminalise illegal traffic of hazardous wastes. This is a vital provision requiring specific national implementation. It also has implications for the diverse forms of national enforcement. In addition, enforcement agencies such as the Regional Enforcement Network for Chemicals Waste (Project

REN) and the Committee of Basel Convention are also mentioned.

Nevertheless, regardless of whether their enforcement mechanisms are soft or hard, their functions remain limited. In this situation, networks play a pivotal role. Again, chapter four also gave a general introduction to national enforcement under the Basel Convention. According to the national enforcement system, enforcement requires available legislation, institutions, and application in practice. The effectiveness of national enforcement also relies on cooperation and networks between relevant parties.

Building on Chapter 4, Chapter 5 discussed national environmental law enforcement more specifically, and the discussion was separated into three parts: sources and legislation, national institutions, and national enforcement practices. Chapter 5 introduced and analysed the environmental legislation in China and the UK separately, particularly in relation to waste management and transboundary movement of waste. Furthermore, the institutional framework in the two countries was considered. The critical point of this chapter is the comparison of the legislation and institutions in the two countries, China and the UK, which can respectively be seen as typical waste export and import countries. Different legislation and institutions create diverse enforcement barriers. The principal purpose was to lay the groundwork for considering whether networks can assist in removing or minimising these barriers and, hence, enhancing enforcement.

The key point that emerged in Chapter 6 was the application of the three key themes of enforcement in practice in China and the UK. Since the previous chapters discussed legislation and institutions of national legal systems, this chapter examined those systems in the context of the key themes of enforcement which can impact the efficiency of enforcement, namely, independence of regulators, capacity of regulators, and deterrence. In relation to independence, for example, the independence of regulating institutions in China is usually curbed by central and



local governments. Similarly, the independence of regulators in the UK is also partly affected by government ministers and the Parliaments in certain ways but not to the same extent in practice as in China. Independence encompasses the independence of regulators conducting inspection and enforcement procedures and independence as enshrined in the legislation establishing the regulatory institutions.

The second key theme of enforcement is the capacity of regulators, including the quality and expertise of regulators, the availability of funds and equipment, and the ability of legislative provisions to cover a wide range of situations. Indeed, the capacity of regulators in China is weaker than that of the UK because of lack of sufficient funding and experience. That is why coordination and cooperation are crucial for establishing what support may be available from others and leveraging that support. Networks are therefore needed here for further cooperation and coordination to improve the quality of independence of regulators and their capacity.

The last theme of enforcement is deterrence. There is evidence that higher penalties do have a deterrent effect. However, the issue is more problematic in cases involving transboundary waste shipments because several agencies are potentially involved. There is evidence that collaboration between those agencies is vital to ensure that enforcement takes place, let alone if there is a high penalty. This suggests a role for networks as a systematic way of ensuring that cooperation. The argument in this chapter was that China faces more enforcement limitations, which is drawn from the discussion and comparative analyses relating to the key themes of enforcement. Such findings led the researcher to consider the necessity and importance of networks and how they can improve enforcement through the three key themes.

The aim of this research is to explore the question of whether networks have a role in enhancing environmental law enforcement. The significant finding that emerged in Chapter 7 is that, to some extent, networks can enhance environmental regulatory enforcement through the three key themes of enforcement. According to Slaughter,

networks have played relevant roles in different fields. Three types of networks relating to environmental enforcement were analysed: information networks, harmonisation networks, and enforcement networks. Each network has its characteristics, but their functions intersect.

In Chapter 7, each network was considered in the context of specific organisations and case studies. INECE represents the information networks, IMPEL represents the harmonisation network, and specific cases of INECE and IMPEL assisting with environmental enforcement represent the enforcement networks. This representation helped explain the networks' roles theoretically and provided practical experience in environmental enforcement related to the transboundary movement of hazardous wastes. After a discussion of each network, the research confirmed the contribution of networks to the three key themes of enforcement.

Although networks are most thoroughly discussed in Chapter 7, they are also considered in most previous chapters. Chapter 3 emphasised the need to build networks for better cooperation and coordination to enhance the implementation and enforcement of the Basel Convention. Chapter 4 discusses the enforcement networks in which the Basel Convention participates, delineating their governance and setting out how it cooperates with other environmental legal frameworks through networks. It enumerates the significant role played by institutions such as the GCI within the enforcement networks. Although Chapter 5 does not extensively refer to discussions on networks, examining Chinese and UK legislation, enforcement legislation, and enforcement institution issues concerning the transboundary movement of hazardous waste serves as a prelude to Chapter 6. The three key themes of enforcement are introduced in Chapter 6, with the role of networks in promoting enforcement being explored within each theme. Chapter 7, therefore, provided an answer to how networks can improve enforcement, as posed in the previous chapters.

### **8.3 Lessons for Each Other**

The comparison between China and the UK in Chapters 5 and 6 revealed critical facts about their regulatory regimes and their current status.

The first lesson learnt in this research is the key themes of enforcement and why these can affect the efficiency of enforcement. Such key themes were discussed within the context of the legislation, institutions, and enforcement in the two countries. Through the comparative analysis of legislation, institutions and enforcement between China and the UK, weaknesses (which varied between China and the UK as further explained below) in enforcement related to the key themes were identified, which also led to an identification of the potential role of networks to address those weaknesses and enhance enforcement.

The second lesson learnt is that legislation and institutions in China are very centralised, and independence is not promoted in legislation or institutional arrangements compared with the UK. Although Chinese institutions are part of a wider vertical and horizontal network of authority, they are generally not independent for political reasons. The implementation and enforcement of national law are affected by local government and central government to a greater extent than in the UK.

The third lesson learnt is that the capacity of regulators should be viewed broadly beyond the quality and expertise of regulators, including their funding support, the quality of legislation they operate under, and their ability to coordinate enforcement between agencies. Compared to China, the UK has more funding for capacity building of regulators. However, funding is not only required to support the capacity building of regulators but also to address other issues of the enforcement regime, such as promoting the quality of legislation. Besides, given the state of the environmental law regime in the UK system, government agencies relevant to environmental protection cooperate and coordinate better.

The fourth lesson learnt is that the deterrence effect of enforcement is not simply about the punishment or penalty. In enforcement, deterrence can also be understood to be about encouraging compliance. Learning from other countries or other experiences to enhance or revise enforcement mechanisms and ultimately bring about improved legislation is the way to ensure the deterrent effect of enforcement. However, in the UK, applying high fines for sanctions has more deterrent effect.

Furthermore, this research showed the potential for networks to deal with transboundary pollution, specifically under the Basel Convention regime. Although the waste import ban entered into force in 2018, China still has to assess its impact. This is because China, as one of the biggest waste import countries, lacks capacity building and cooperation on inspection. Moreover, coordination between national agencies or other departments can enhance inspection and help obtain evidence in the litigation process.

Lastly, another lesson is the power of international organisations to boost enforcement in the UK and other countries; for example, the UK has played a significant role in IMPEL, which has improved enforcement, although the extent to which this will continue post-Brexit remains unclear.

Upon reviewing the previous summary, it becomes apparent that China can glean valuable insights from the UK across various domains, including legislative and institutional independence, capacity-building efforts, and the efficacy of deterrence measures. However, achieving institutional independence in China may encounter obstacles stemming from its political framework. The discussion in this thesis highlights that the UK, having been part of the EU, has enjoyed more significant opportunities for external collaboration and networking, facilitating robust capacity-building endeavours. In contrast, China mainly focuses on internal network establishment and collaboration, with primary financial and technological support from the central government. Regarding deterrence mechanisms, given China's

historical role as one of the major waste importers, adopting stricter measures similar to those in the UK could be beneficial. Nonetheless, China's centralised legislative and governance structures offer certain advantages, exemplified by the nationwide enforcement of the 2018 waste import ban.

#### **8.4 Contribution to Knowledge**

This thesis contributed to knowledge in several key areas. These are 1) the value that networks can have in enhancing the enforcement of the Basel Convention between states; 2) doing this in the context of a comparison between China and the UK, which has not previously been done in this regard; and 3) the application of the key themes of enforcement identified by other scholars in the context of this comparison dealing with enforcement of legislation dealing with transfrontier shipment of hazardous waste.

The first contribution to the knowledge of this research is the role of networks in relation to the enforcement of the transfrontier waste regime. The role of networks, at the international or national levels, in improving environmental enforcement is discussed in broad terms. This research demonstrates how networks can bolster regulatory independence, enhance regulatory capacity, and strengthen enforcement deterrence.

The second contribution of the thesis is specifically the comparison between the UK and China concerning laws and enforcement structures and practices relating to the transboundary movement of hazardous waste. While current literature broadly shows the experience of environmental law enforcement from the US, the transboundary movement of waste between Hong Kong and North America, and even Hong Kong and Europe, the comparison between mainland China and the UK is limited. In essence, this research also introduces English-speaking readers to some of China's legislation, cases and commentary in that field, which have not been translated. In

addition, because China and the UK have different legal and political systems, their enforcement mechanisms and approaches are dissimilar. The comparative approach in analysing the nature and practice of environmental enforcement in China and the UK exposed some weaknesses and gaps in a number of provisions in relevant laws and enforcement mechanisms in both countries. This comparative analysis led to recommendations for improvement in further research.

The final contribution of this research is the application of the three key themes of enforcement. According to the literature, irrespective of the legislation, institution and enforcement mechanism, whether in China or the UK, independence of regulators, capacity of regulators, and deterrence are vital elements which affect the efficiency of enforcement (see Chapter 5 and Chapter 6). Existing literature may discuss one theme or point out barriers to enforcement. However, in this research, the key themes were analysed together, including the comparative elements of the legislation, institutions, and enforcement mechanisms and approaches in China and the UK. However, literature revealed that treatment of the enforcement themes is more heavily slanted to certain themes; for example, much literature raises the importance of the capacity of regulators and the necessity of deterrence of enforcement, but much less on the independence of regulators.

The contributions of knowledge in this area are interrelated. Firstly, a comparison of enforcement between China and the UK leads to the discussion of key themes in enforcement through the analysis of legislation, institutions, and enforcement. Secondly, understanding enforcement key themes and finding out their application in China and the UK, finding out the role of networks, and how to contribute to the efficiency of enforcement. However, the findings in relation to the role of networks in this regard are the most significant.

## **8.5 Major Findings and Recommendations**

Three major findings can be drawn from this research.

The first major finding of this research is that, through a comparative study of law enforcement regarding the transboundary movement of hazardous waste in China and the UK, enforcement appears to be more efficient in the UK than in China for several reasons. Comparing the legislation and institutions and enforcement measures and approaches between China and the UK, the research established that legislation and institutions in the UK are more independent than in China. In addition, the UK has a longer history of environmental protection, and its former close connection with EU members generally demonstrates the higher capacity of environmental regulators. In addition, enforcement measures and approaches, particularly regional and international enforcement, show better coordination and cooperation between agencies in the UK than is the case in China.

The second major finding that arises from this research is that most research on environmental law enforcement attempts to evaluate the effectiveness of such enforcement by referring to the impact of government agencies, lack of funding or technology, understanding of legislation, and other elements. However, it does not clarify the key themes of enforcement. This research does that, hence setting a framework for considering the issue of effectiveness in future research.

The third major finding is that while Slaughter has provided a compelling theoretical framework for the contribution networks make in environmental enforcement, there is a lack of analysis of their impact on the key themes of enforcement identified by this thesis. While further research on this may be necessary, this thesis has found that networks can positively contribute to those themes.

Three major recommendations are made based on the findings of this research. The first major recommendation is that networks can improve the independence of regulators. The 'independence' discussed in this thesis not only relates to the

independence of institutions from government control but also includes the promotion of independence through legislation and enforcement procedures. More so, whether in China or the UK, the legal system is affected by various factors. However, networks can offer regulators the opportunity to collaborate with more organisations, departments, or agencies from different countries, which can provide alternative perspectives and help to counter limits on the independence of regulators from the central or local government.

The second recommendation relates to enhancing the function of networks for capacity building of regulators. According to the comparison of the enforcement mechanisms of the UK and China, the UK has more experienced and effective institutions, which could improve the capacity of the regulator. This capacity building will directly respond to regulatory enforcement problems and can involve, for example, establishing more workshops on the regulatory regime, experience sharing, and knowledge transfer. A potential limitation in China is that institutions are not so open to networks, perhaps partly due to language barriers and communication problems. Therefore, China has very positive internal networks to improve enforcement through information and experience sharing for regulatory capacity building. However, China's involvement in external networks on international or transnational enforcement is limited when compared to the international or transnational enforcement activities involving the UK. There might be a solution for this problem, which is recruiting staff with a higher educational background with enhanced language skills and professional knowledge, which could encourage regulators to get involved in networks to a greater extent.

The third recommendation is to strengthen enforcement deterrence by networks, not only in China and the UK but also in other countries. Networks can assist in ensuring the provision of evidence from inspection and compliance monitoring and consequently assist an agency in bringing enforcement proceedings against violators,



thus providing a basis for deterrence. The critical challenge, however, is how to ensure the development and maintenance of networks. Establishing network-based projects by NGOs, international organisations, or a national agency can enhance the enforcement of the environmental law regime. In addition, it was demonstrated in Chapter 3, for instance, that the Basel Convention COPs can provide oversight of networks and engagement with regulatory bodies. In so doing, it immensely helps regulators from different countries, agencies, and departments involved in the judicial governance of the environment.

The last recommendation concerns maintaining and developing more networks to improve environmental compliance and enforcement. INECE provides a good example of helping to build sustainable networks. First, it cooperates with the Basel Convention Implementation and Compliance Committee to build broader networks. The second example refers to 'the network of networks', which is the existing networks providing programmatic and strategic support and guidance for further network design and development.

## **8.6 Limitations and Suggestions for Future Study**

This study has three main limitations. First, its scope was limited to environmental law, and its analysis was based on the Basel Convention and how networks could contribute to enhancing the enforcement of relevant laws. However, this study does not discuss how networks can enhance enforcement where damage is to areas beyond national jurisdictions.

Damage to areas beyond national jurisdiction in the international environmental law regime is addressed, for example, by the London Convention<sup>1398</sup> or in treaties protecting Antarctica.<sup>1399</sup> There is perhaps a different issue, which is that networks are likely to have more impact in enhancing transboundary enforcement than in

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<sup>1398</sup> London Convention 1972 (n 29)

<sup>1399</sup> The specific treaty for protecting Antarctica (n 524)

purely national enforcement because the former almost inevitably involves multiple agencies, whereas the latter does not. Therefore, the research may be limited in its value to transboundary enforcement. However, there may be lessons for large states like China, where many agencies need to collaborate across county and provincial boundaries.

A second limitation is the lack of academic resources on the transboundary movement of hazardous waste law and enforcement in China, including commentaries on cases. Cases in the judicial case library are limited, and some of them are not clearly described. To address that in part, the researcher has had to rely to an extent on the works and views of other scholars. Although this may create the possibility of misrepresenting the cases, there was no plausible alternative within the limited scope of this single research.

The third limitation is the narrow focus exclusive on China and the UK, which is narrow. However, with China's ban on waste imports, the focus shifts to establishing where that additional waste is now being shipped. Therefore, future research could look into this.

Still, on the limitation, there are critical areas for future research following the issues raised in this thesis. First, there is a key issue for additional research on the networks of enforcement and how networks actually operate through interviews or other methods with personnel. This research provided details of the general operations of the networks themselves, such as international conferences for information exchange and experience sharing, as well as joint inspection actions. Research for operational details by individuals involved in networks would need to be identified.

Second, future research will explore linking regulators by identifying instances of actual institutional interactions, such as the regularity of the information exchange between staff in network projects. More case study research will be valuable, with

the engagement of relevant individuals who are involved in enhancing enforcement. Such future research may also require a new methodology involving interviews and observation. Such a methodology will provide insights into the actual impact of networks on particular operations. Moreover, such research may be challenging, not the least because of the possible reluctance of regulators to allow such research, given the potential confidentiality of operational proceedings involving possible criminal infringements.

## **8.7 General Conclusion**

By reason of globalisation, the development of law and law enforcement is now more complex. With the emergence of transboundary crime, cross-jurisdictional enforcement cooperation requires a good understanding of the legal framework of other nations. Comparing one nation with another provides insight into better experiences and can also throw light on ways to develop more efficiency in future environmental enforcement actions. Although China is a developing nation and is a typical waste import country, its history of environmental law is much shorter than that of the UK. On the other hand, within the context of this research, China also has good practices that can be learnt by other countries. A typical example is the waste import ban taking effect in China. There is, therefore, a need for jurisdictions to learn from each other and to collaborate closely when transboundary crimes occur.

According to the comparison between the two countries, no matter in China and the UK, improving the efficiency of enforcement requires enhancing key themes of enforcement, which requires more independence of regulators, better capacity of regulators and more substantial deterrence impact but with differences of emphasis in each. These requirements are hardly met by a single institution or regulator, in particular, when it faces international or trans-national enforcement international or trans-national. This highlights the importance of cooperation and networks. Globalisation has given rise to more complicated international environmental

pollution cases; networks provide a significant role in international and transnational enforcement by enhancing the three key themes of enforcement and enabling greater collaboration and cooperation between institutions, regulators, agencies, and governments.

In conclusion, this research is arguably provides valuable insights into of networks in supporting key themes of enforcement. Indeed, networks have a crucial role, particularly in enhancing enforcement in the case of transboundary environmental criminal activity.

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