

Arieke de Vries

25 MARCH 2019

MSc Thesis Project at the
division of Law and Governance



**THE HAZARDOUS PESTICIDE MARKET:
STRENGTHENING CORPORATE ACCOUNTABILITY
TO PROTECT THE RIGHT TO FOOD AND THE RIGHT TO HEALTH
IN DEVELOPING COUNTRIES**

Author:

A.M. de Vries

931209911060

MSc Food Law and Regulatory Affairs

MSc Thesis Project at the Law and Governance Group (LAW-80436)

Wageningen University and Research (WUR)

Supervisor & Examiner A:

Dr. Nadia Bernaz

Law and Governance Group, WUR

Examiner B:

Dr. Alexia Herwig

Law and Governance Group, WUR

Submission date:

25.03.2019



Acknowledgement

First and foremost, I want to express my gratitude to Dr. Nadia Bernaz for giving me the opportunity to write my MSc thesis project at the division of Law and Governance. Thank you for your guidance and support during my thesis project. At the start of this project, I did not know much about business and human rights. You have patiently taught me a lot about this area of law, which is greatly appreciated.

I would also like to thank my family and friends for their support. Especially my sister Tunske, without whom I would not have been able to write this thesis. Thank you for providing me with my requested literature from the Leiden University Library and other sources to which Wageningen University did not have access.

Romy, I want to thank you for your mental support, saving me seats in the Forum library and making sure I maintained a healthy diet throughout this project. You have made it much easier for me to commit to my project.

Abstract

This literature study aimed at identifying ways to strengthen corporate accountability by clarifying the accountability of involved actors in exposing individuals in developing countries to hazardous pesticides. These are banned from the EU's internal market based on their toxic properties but can be put on the external market via subsidiaries of, and international trade by, the EU-based agrochemical corporations BASF, Bayer CropScience and Syngenta. The pesticides interfere with the human right to health and the right to food. The designed approach to study accountability was based on Bovens' concept of accountability and Black's concept of legitimacy. The results of the study entail that, even though the developing countries should be held accountable for failing to meet their obligation to protect human rights, the EU must take the lead in protecting the rights to food and health in these countries against the use of hazardous pesticides of EU-based agrochemical corporations. Agrochemical companies must be held accountable based on the finding that their behaviour does not meet their goals and values. Strengthening corporate accountability can be done by raising State responsibility by considering hazardous pesticides a transboundary harm, increasing the accountability of the EU and its Member States by adopting the notion of extraterritoriality and shared accountability. Litigation is not an effective method to enhance corporate accountability. Increasing developing countries' capacities to enforce legislation on hazardous pesticides and, even more important, to hold corporations to account is important. Furthermore, naming and shaming strategies have shown to effectively change corporate behaviour.

Key words: hazardous pesticides; accountability; business and human rights; developing countries

Summary

Through foreign direct investment and international trade, individuals in developing countries are exposed to hazardous pesticides, resulting in serious acute and chronic adverse health effects and environmental pollution. Developing countries lack legislation and enforcement on the use of hazardous pesticide. Citizens in developing countries are more susceptible to pesticide poisoning but the economic benefits from hazardous pesticides outweigh the health costs. Hazardous pesticides like Atrazine, Anilofos, Paraquat and Phorate are banned within the European Union (EU) because of their toxic properties but can be put on external markets. This double standard gave rise to public concerns related to human rights violations. The hazardous pesticides are produced by the agrochemical companies BASF, Bayer CropScience and Syngenta. All three have their headquarters in the EU. The corporate accountability gap poses a challenge in dealing with human rights violations caused by these agrochemical companies. Setting standards for corporate conduct and changing corporate behaviour can bridge this gap. The current literature study aimed at identifying ways to strengthen corporate accountability by clarifying the accountability of several actors. First, the legal framework on international pesticide trade and human rights, especially the human right to food and the human right to health, was identified. Afterwards, the accountability was determined for the EU, its Member States with Germany as an example, the three agrochemical companies and developing countries in general. The Rotterdam Convention provides why the EU and its Member States can export hazardous chemicals banned within the internal market. The EU implemented this convention in Regulation (EU) No 649/2012. Rules on putting pesticides on the internal market are stipulated in Regulation (EC) No 1107/2009. The right to health and the right to food provide the State's obligation to respect, protect and fulfil these rights. The UN Guiding Principles on Business and Human Rights adds the corporate responsibility to respect human rights. The EU Member States are bound to international human rights treaties and the EU's Charter of Fundamental Rights. The EU's human rights values are included in their founding values. Selling hazardous pesticides and, subsequently, committing transboundary harm under international environmental law and human right violations under international human rights law raises accountability for the home State, the State where the headquarters are based, and the agrochemical corporations. Furthermore, allowing hazardous pesticides to enter, or be produced within, markets under the jurisdiction of the host State, the developing countries, also raises accountability. Compliance with hard law such as the Rotterdam Convention or the Stockholm Convention does not contribute much to the discussion on accountability of the involved actors. Furthermore, competence divisions between the EU and its Member States adds another dimension of complexity to accountability in environmental law or human rights law. In international law, the EU and its Member States can be held jointly responsible for an internationally wrongful act. However,

litigation in international law is rarely successful. Therefore, the notion of accountability goes beyond responsibility. The EU should increase the consistency between their internal and external policies in order to meet the high ambitions and to deal with their double standards. Because it can be assumed that the EU has knowledge on corporation's extraterritorial conduct, the EU should take steps to prevent transboundary harm and extraterritorial human rights violations caused by corporations. This is also true for the Member States. Compliance of the companies with both domestic legislation and non-binding guidelines can be ensured by holding the companies accountable but is not enough to protect the right to food and the right to health, especially regarding local populations and vulnerable groups. Responsible use of products cannot be assumed in developing countries and has to be ensured by the corporations. Corporations build credibility via transparency, responsiveness and public statements. When corporations are not held to account in developing countries, the EU should undertake action to ensure that agrochemical companies are held to account and that developing countries are enabled to do this themselves. Corporations should respect human rights and contribute to the State's duty to protect human rights. Their legislative powers in developing countries and international standard setting should not result in conduct that conflicts with their claimed commitments to international recognised standards and values or with State duties. It can be concluded that, even though the developing countries have the primary obligation to protect human rights, the EU must take the lead in protecting the right to food and the right to health in developing countries against the use of hazardous pesticides of EU-based agrochemical corporations. However, agrochemical companies must be held accountable based on the finding that their behaviour does not meet their goals and values. Furthermore, developing countries must be held accountable because they fail to meet their obligation to protect human rights within their jurisdiction. The adverse effects of hazardous pesticides on the right to food and the right to health should outweigh the positive ones. Therefore, developing countries must be held accountable for failing to protect their citizens against these substances. The country's dependence on hazardous pesticides should not be ignored, nor should it be presented as a reason to not pursue international collaboration or implement other measures in order to progressively realise the right to food and the right to health. Identified ways to strengthen corporate accountability is by raising State responsibility by considering hazardous pesticides a transboundary harm, increasing the accountability of the EU and its Member States by adopting the notion of extraterritoriality and shared accountability. Litigation is not an effective method to enhance corporate accountability. It is of the utmost importance to increase the developing country's capacities to enforce legislation on hazardous pesticides and, even more important, to hold corporation to account. Focussing on local governments and joining the UN Global Compact can be effective methods to combat corruption and provide remedies for victims. Furthermore, naming and shaming strategies have shown to effectively change corporate behaviour.

List of abbreviations

CEDAW	Convention on the Elimination of All Forms of Discrimination against Women
CESCR	Committee on Economic, Social and Cultural Rights
CFR	Charter of Fundamental Rights
CJEU	Court of Justice of the European Union
Codex	Codex Alimentarius
CRC	Convention on the Rights of the Child
CSR	Corporate Social Responsibility
DDT	Dichloordifenyiltrichloorethaan
DEA	Directorate for European Affairs
ECA	Export Credit Agencies
ECCHR	European Center for Constitutional and Human Rights
ECHA	European Chemicals Agency
ECHR	European Convention on Human Rights and Fundamental Freedoms
ECtHR	European Court of Human Rights
EDF	European Development Fund
EFSA	European Food Safety Authority
ESPR	European Parliamentary Research Service
EU	European Union
FAO	Food and Agricultural Organisation
FDFA	Federal Department of Foreign Affairs
FFO	Federal Foreign Office
GATT	General Agreement on Tariffs and Trade
GHS	Globally Harmonized System of Classification and Labelling of Chemicals
HHP	Highly Hazardous Pesticides
HR	High Representative of the European Union for Foreign Affairs and Security Policy
ICCPR	International Covenant on Civil and Political Rights
ICESCR	International Covenant on Economic, Social and Cultural Rights
ICJ	International Court of Justice
ICJ	International Court of Justice
IDLO	International Development Law Organisation
ILC	International Law Commission
MEA	Multilateral Environmental Agreement

NAP	National Action Plan
NGO	Non-Governmental Organisation
OECD	Organisation for Economic Co-operation and Development
OHCHR	United Nation's Human Rights Office of the High Commissioner
PAN	Pesticide Action Network
PAN AP	PAN Asia and the Pacific
PIC	Prior Informed Consent
POP	Persistent Organic Pollutant
PPP	Plant Protection Product
REIO	Regional Economic International Organisation
SPS	Sanitary and phytosanitary
TBT	Technical Barriers to Trade
TEU	Treaty on the European Union
UDHR	Universal Declaration of Human Rights
UK	United Kingdom
UN	United Nations
UN DESA	United Nations Department of Economic and Social Affairs
UNCED	United Nations Conference on the Environment and Development
UNEP	United Nation's Environmental Programme
UNGA	United Nations General Assembly
UNGC	United Nations Global Compact
UNHCR	United Nation's Human Rights Council
UNSD	United Nations Sustainable Development
UNWG	United Nations Working Group
US	United States
US EPA	United States Environmental Protection Agency
WHO	World Health Organisation
WTO	World Trade Organisation

Table of Contents

Acknowledgement.....	iv
Abstract	v
Summary	vi
List of abbreviations	viii
1 Introduction.....	1
1.1 Problem Statement	1
1.1.1 The threat for public health and the environment caused by pesticides	1
1.1.2 Double standards concerning hazardous pesticides	2
1.1.3 A human rights approach: the corporate accountability gap	3
1.2 The study	4
1.2.1 The aim of the study.....	4
1.2.2 The Research and sub-questions of the study	5
1.2.3 Research approach	5
1.2.4 Outline of the study.....	5
1.2.5 Definition of terms	7
1.2.6 Relevance of the study	7
2 The impact of hazardous pesticide uses on human health and developing countries	9
2.1 Global use of hazardous pesticides	9
2.2 The classification of Pesticides	11
2.2.1 Classification based on chemical structure	11
2.2.2 Classification according to hazard	13
2.3 Exposure to pesticides and their adverse human health effects	15
2.3.1 Routes of exposure and risk factors	15
2.3.2 Adverse effects on human health	18
2.3.3 Incidence of pesticide poisoning	20
2.4 Developing countries and hazardous pesticides	21
2.4.1 The role of agriculture and pesticides in developing countries	21
2.4.2 Increased risk for human exposure to pesticides in developing countries	22
2.4.3 Agrochemical companies' incentives for foreign direct investment and export of hazardous pesticides to developing countries	23
2.5 Creation of safety standards in the EU and challenges faced by developing countries	24

2.6	Raising concerns on the use of hazardous pesticides	26
3	The legal framework on international trade of hazardous chemicals and human rights	29
3.1	International trade of hazardous chemicals.....	29
3.1.1	The GATT/WTO system	29
3.1.2	The effects of the UNCED on the trade of hazardous pesticides	30
3.1.3	The Rotterdam Convention on the Prior Informed Consent procedure	32
3.1.4	EU's legislation on import and export of hazardous pesticides	36
3.1.5	EU's legislation on the placing of PPPs on the market.....	38
3.2	Legal framework concerning human rights.....	39
3.2.1	The International Bill of Human Rights	39
3.2.2	The right to health.....	40
3.2.3	The right to food.....	43
3.2.4	The Guiding Principles on Business and Human Rights.....	47
3.2.5	The UN Global Compact	49
3.2.6	The EU and Human Rights	50
3.2.7	The EU's external policy with respect to human rights.....	52
4	Defining concepts and the approach to determine accountability.....	56
4.1	Defining concepts	56
4.1.1	State responsibility	56
4.1.2	The concept of accountability according to Bovens.....	57
4.1.3	The concept of legitimacy according to Black	59
4.2	Approach to determine accountability	60
5	The accountability of the EU and its Member States.....	62
5.1	Competence to act and joint responsibility	62
5.1.1	EU competence to act and joint responsibility in international environmental law	63
5.1.2	EU competence to act in human rights treaties and the effect on responsibility	65
5.2	Attributing responsibilities to the EU and its Member States	67
5.2.1	Meeting responsibilities under the Rotterdam and Stockholm Conventions and Regulation (EU) 649/2012	67
5.2.2	State responsibility in injurious consequences of acts not prohibited by international environmental law.....	69
5.2.3	Extraterritorial human rights obligations for States.....	73
5.2.4	Attributing acts of transnational agrochemical corporations to State responsibility under the ILC Draft Articles	74
5.3	Meeting goals and values and managing credibility	77

5.3.1	Coherence in the EU's internal and external policies.....	77
5.3.2	Germany's NAP on Business and Human Rights	81
5.3.3	Additional remarks on accountability for the EU as a REIO and its Member States.....	82
6	The accountability for agrochemical companies.....	86
6.1	Written norms, goals and values for corporations	86
6.1.1	Subjectivity to law	86
6.1.2	The practical implications of the UN Global Compact on corporations.....	86
6.1.3	Corporate responsibility to protect human rights	88
6.2	BASF: We Create Chemistry	89
6.3	Bayer: Science For A Better Life	91
6.4	Syngenta	94
6.5	Additional remarks on accountability of agrochemical companies	97
7	The accountability for developing countries.....	101
7.1	The Rotterdam Convention: a lack of real choice	101
7.2	Host State obligations regarding human rights.....	102
7.2.1	The lack of real choice consequences for meeting the ICESCR's general obligation ..	102
7.2.2	Meeting obligations in the right to food	104
7.2.3	Meeting obligations in the right to health.....	105
7.3	Additional remarks on accountability in developing countries.....	106
7.4	Integration of key findings	106
8	Discussion: strengthening corporate accountability	109
8.1	Effectiveness of attributing responsibilities to States	109
8.1.1	Challenges in considering hazardous pesticides a transboundary harm	109
8.1.2	Joint responsibility and the EU accountability gap.....	110
8.1.3	Extraterritorial human rights obligations to strengthen corporate accountability.....	112
8.1.4	The effectiveness of pursuing litigation	113
8.2	Enhancing corporate accountability through capacity building in developing countries	114
8.3	Challenges for corporations to contribute to the protection of human rights in developing countries.....	116
8.4	Discussion on the current study	117
8.4.1	Contribution to science based on the recommendations proposed by the Special Rapporteur on the right to food.....	117
8.4.2	Strengths of the study	118
8.4.3	Limitations of the current study	118
8.4.4	Recommendations for future research	119

Conclusion	120
Bibliography.....	121
Appendix.....	134

1 Introduction

"The airplane [spraying pesticides] flies over the community. Several times pesticides fell on me while I was working on the land. There is nothing we can do."

- Estevo's testimony in Human Rights Watch' report.¹

1.1 Problem Statement

Pesticides serve as pest control chemicals and can also be referred to as "Plant Protection Products" (PPPs).² The use of pesticides has increased after World War II because of the development of new synthetic, more effective, pesticides.³ Worldwide, this increased use has improved the production and yield of agricultural products.⁴ Taking the economic advantages and efficiency of pesticide use into account, pesticides are a preferred method in all agricultural production sectors.⁵ Besides the pesticides' advantages, the chemicals can also pose a threat for public health and the environment.

1.1.1 The threat for public health and the environment caused by pesticides

Pesticides contain active substances that have toxic properties.⁶ These substances can be harmful to the environment by contaminating soil, plants and water and by accumulation in animals.⁷ When humans are exposed to pesticide levels that exceed the corresponding safety levels⁸, both acute and chronic adverse health effects can occur⁹. Human exposure to pesticides can occur via direct contact or indirectly via, for example, consumption of food products.¹⁰ Developing countries have an increased

-
- 1 Human Rights Watch, "'You Don't Want to Breathe Poison Anymore'" The Failing Response to Pesticide Drift in Brazil's Rural Communities' (2018) 19
 - 2 Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions - A Thematic Strategy on the Sustainable Use of Pesticides [2006] COM(2006) 373 final
 - 3 Caroline E Handford, Christopher T Elliott and Katrina Campbell, 'A review of the global pesticide legislation and the scale of challenge in reaching the global harmonization of food safety standards' (2015) 11 Integrated environmental assessment and management 525
 - 4 Theodoros Skevas, Alfons GJM Oude Lansink and Spiro E Stefanou, 'Designing the Emerging EU Pesticide Policy: A Literature Review' (2013) 64 NJAS 95
 - 5 Christos A Damalas and Ilias G Eleftherohorinos, 'Pesticide Exposure, Safety Issues, and Risk Assessment Indicators' (2011) 8 IntJEnvironResPublicHealth 1403
 - 6 Theodoros Skevas, Alfons GJM Oude Lansink and Spiro E Stefanou, 'Designing the Emerging EU Pesticide Policy: A Literature Review' (2013) 64 NJAS 95
 - 7 Heinz-R Köhler and Rita Triebkorn, 'Wildlife Ecotoxicology of Pesticides: Can We Track Effects to the Population Level and Beyond?' (2013) 341 Science
 - 8 Theodoros Skevas, Alfons GJM Oude Lansink and Spiro E Stefanou, 'Designing the Emerging EU Pesticide Policy: A Literature Review' (2013) 64 NJAS 95
 - 9 Caroline E Handford, Christopher T Elliott and Katrina Campbell, 'A review of the global pesticide legislation and the scale of challenge in reaching the global harmonization of food safety standards' (2015) 11 Integrated environmental assessment and management 525
 - 10 Gözde Türköz Bakırcı and others, 'Pesticide Residues in Fruits and Vegetables from the Aegean Region, Turkey' (2014) 160 FoodChem 379

risk for human exposure to pesticides because most of their citizens are employed in the agricultural sector.¹¹ Most importantly, the pesticides used in developing countries are more toxic and banned or restricted in developed countries.¹² The reason why developing countries use hazardous pesticides is because of the products are cheaper than the alternatives and enable the countries economically to provide their citizens with the basic needs, such as food.¹³ Acute poisoning due to hazardous pesticides accounts for 200,000 to 300,000 deaths per year of which 99 percent occurs in developing countries.¹⁴

According to Handford, Elliott and Campbell, regulation of pesticides is necessary to protect both public health and the environment.¹⁵ Comparing countries worldwide, the pesticide legislations vary a great deal, resulting in different safety standards. Developed countries often have stricter legislation than developing ones, which does not only affect trade, but also the environment and public health. The European Union (EU) is known for its strict standards.¹⁶ Overall, 80 percent of the developing countries lack enforcement resources and 45 percent lacks effective legislation on pesticides.¹⁷

1.1.2 Double standards concerning hazardous pesticides

Due to the different safety standards, another problem arises as well. In September 2017 a news article was published, claiming that the United Kingdom (UK) exports Paraquat to developing countries and that this chemical has been banned in the EU since 2007.¹⁸ Paraquat is a highly hazardous pesticide that can result in serious acute and long-term effects. According to the article, 41,000 tons of Paraquat is exported by the UK of which 61 percent is imported by developing countries. Another banned pesticide in the EU is Atrazine.¹⁹ In a legal notice, it was stated that 2.484,000 tons of Atrazine was

11 Christos A Damalas and Ilias G Eleftherohorinos, 'Pesticide Exposure, Safety Issues, and Risk Assessment Indicators' (2011) 8 IntJEnvironResPublicHealth 1403

12 ibid

13 UNGA, 'Report of the Special Rapporteur on the right to food ' accessed paragraph 73. See also Paula Barrios, 'The Rotterdam Convention on Hazardous Chemicals: A Meaningful Step Towards Environmental Protection?' (2004) 16 GeoIntlEnvtlLRev 700

14 UNGA, 'Report of the Special Rapporteur on the right to food ' accessed paragraph 1

15 Caroline E Handford, Christopher T Elliott and Katrina Campbell, 'A review of the global pesticide legislation and the scale of challenge in reaching the global harmonization of food safety standards' (2015) 11 Integrated environmental assessment and management 525

16 ibid 525, 528, 533

17 UNGA, 'Report of the Special Rapporteur on the Right to Food ' (2017) UN Doc A/HRC/34/48 paragraph 71.

18 L Gaberell, 'UK Exports Banned Pesticide to Developing Countries' The Journal of Pesticide Action Network UK Public News (UK Date) <https://www.publiceye.ch/en/news/uk_exports_banned_pesticide_to_developing_countries/> accessed 5 October 2018

19 Laurent Gaberell, 'UK exports banned pesticide to developing countries' Public News (UK Date) <https://www.publiceye.ch/en/news/uk_exports_banned_pesticide_to_developing_countries/> accessed 5 October 2018

exported to developing countries in 2015.²⁰ Another news article, published in August 2018, describes the pesticide poisoning issues that occur in Brazil.²¹ The article states that Brazil has 150 authorised pesticides of which 35 are banned within the EU. Still, the pesticides are produced by EU's agrochemical companies such as BASF, Bayer CropScience and Syngenta.²² This occurs through international trade, the products or active substances are produced by the companies' headquarters in the EU and subsequently exported to developing countries.²³ Foreign direct investment occurs as well, the agrochemical companies create subsidiaries in developing countries where the products are produced and put on the market.²⁴ Permitting both methods while banning or severely restricting the use of hazardous pesticides within the EU can be identified as double standards.²⁵

1.1.3 A human rights approach: the corporate accountability gap

Article 25(1) of the United Nations' (UN) Universal Declaration of Human Rights states: '[e]veryone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services (...)'.²⁶ International human rights law is State-centered, obligating States to protect the human rights of their citizens.²⁷ Since the citizens suffer adverse health effects due to pesticide exposure in developing countries, one could state that the developing countries fail to protect human rights, especially the right to health and the right to food. The Special Rapporteur on the right to food states that it is a human right violation to 'subject individuals of other nations to toxins known to cause major health damage or fatality'.²⁸ This suggests the existence of extraterritorial human rights obligations for the EU and its Member States. However, the human rights violations due to hazardous pesticides occur because of the involvement of private agrochemical companies. Human rights treaties are binding for States, but do not put direct obligations on corporations. The UN's Guiding Principles on Business and Human

20 European Parliament, 'Answer to a written question - Atrazine exports to third countries - E-004368/2017' (2017) <<http://www.europarl.europa.eu/sides/getAllAnswers.do?reference=E-2017-004368&language=EN>> accessed 5 October 2018

21 A S Gross, 'Brazil's pesticide poisoning problem poses global dilemma, say critics' Amazon Agribusiness (Cerrado Date) <<https://news.mongabay.com/2018/08/brazils-pesticide-poisoning-problem-poses-global-dilemma-say-critics/>> accessed 5-10-2018

22 Anna Sophie Gross, 'Brazil's pesticide poisoning problem poses global dilemma, say critics' Mongabay Series: Amazon Agribusiness (Date) <<https://news.mongabay.com/2018/08/brazils-pesticide-poisoning-problem-poses-global-dilemma-say-critics/>> accessed 5 October 2018

23 Paula Barrios, 'The Rotterdam Convention on Hazardous Chemicals: A Meaningful Step Towards Environmental Protection?' (2004) 16 *GeolntlEnvntlRev* 691-696

24 *ibid*

25 Marcelo Firpo Porto and others, 'Double Standards and the International Trade of Pesticides: The Brazilian Case' (2010) 16 *IJOEH* 24-25

26 UNGA, 'Universal Declaration of Human Rights' <<http://www.un.org/en/universal-declaration-human-rights/index.html>> accessed art 25(1)

27 N Bernaz, *Business and Human Rights: History, Law and Policy - Bridging the Accountability Gap* (Human Rights and International Law, Routledge, London 2017) 85-86

28 UNGA, 'Report of the Special Rapporteur on the right to food ' accessed paragraph 73

Rights, hereafter referred to as “the Guiding Principles”, address the State’s duty to protect human rights, emphasizing the protection against, and remedy of, human violations caused by their businesses.²⁹ The Guiding Principles highlight the corporate responsibility to respect human rights.³⁰ The document is, however, non-binding and willingness to comply with the principles plays an important role.³¹ Corporations can be bound by domestic law on business and human rights.³² However, developing countries often lack sufficient human rights legislation and enforcement.³³ One reason for this is that developing countries may contribute to the human rights violations due to, for instance, corruption.³⁴ Furthermore, domestic courts can be unreliable and victims may not be able to get access to domestic courts and remedies.³⁵ The absence of international enforcement mechanisms for corporations, the challenges to deal with human rights violations in developing countries and a lack of transparency in corporate conduct, result in difficulties to hold transnational corporations to account for their human rights violations: the corporate accountability gap.³⁶

1.2 The study

1.2.1 The aim of the study

The current study seeks to identify how the accountability of transnational agrochemical corporations can be strengthened in order to protect the human right to food and the right to health in developing countries against hazardous pesticides. In order to do so, the accountability is determined for the EU as a whole, EU Member States, developing countries in general and the agrochemical companies BASF, Bayer CropScience and Syngenta. Subsequently, for each of those actors it is discussed how they could, and whether they should, contribute to the strengthening of corporate accountability.

29 OHCHR, 'Guiding Principles on Business and Human Rights: Implementing the United Nations 'Protect, Respect and Remedy' Framework' (2011) UN Doc A/HRC/17/31

30 *ibid* art 11

31 Nadia Bernaz, 'Enhancing Corporate Accountability for Human Rights Violations: Is Extraterritoriality the Magic Potion?' (2012) 117 JBusEthics 493

32 *ibid* 494

33 N Bernaz, 'State Obligations with Regard to the Extraterritorial Activities of Companies Domiciled on their Territories' in CM Buckley, A Donald and P Leach (eds), *Towards Convergence in International Human Rights Law: Approaches of Regional and International Systems* (Koninklijke Brill NV, Leiden 2017) 436-437

34 *ibid* 436-437

35 *ibid* 437

36 Nadia Bernaz, 'Enhancing Corporate Accountability for Human Rights Violations: Is Extraterritoriality the Magic Potion?' (2012) 117 JBusEthics 494. See also N Bernaz, *Business and Human Rights: History, Law and Policy - Bridging the Accountability Gap* (Human Rights and International Law, Routledge, London 2017) 8

1.2.2 The Research and sub-questions of the study

The research question is: ***how can the accountability of transnational agrochemical corporations be strengthened in order to protect the human right to food and the right to health in developing countries against hazardous pesticides?***

Sub-questions are:

1. *What is the scope of the problem and what are the challenges for developing countries in protecting citizens against hazardous pesticide exposure?*
2. *What is the legal framework applicable to the trade of banned pesticides between the EU and the developing countries?*
3. *What is the relevant international human rights legal framework?*
4. *What is the accountability of the EU as a whole and EU Member States?*
5. *What is the accountability of the agrochemical companies BASF, Bayer CropScience and Syngenta?*
6. *What is the accountability of developing countries in general?*

1.2.3 Research approach

The research and sub-questions were answered by performing a literature review, comparative analysis and doctrinal literature study. Primary sources, such as legal documents and legal notices, were used. In addition, secondary sources were used, such as journal and news articles, books and reports. The literature was collected from several sources, including the library catalogues of Wageningen University and Research, Leiden University and Utrecht University. Furthermore, the journal databases Google Scholar, PubMed and SSRN were used. Legal documents were retrieved from the official websites of organisations (e.g. UN, FAO, WHO or EU) and the EUR-Lex database. Documents from the addressed agrochemical companies and additional information about these companies were collected from their official websites.

The approach to study the accountability of the various actors involved in the current study is elaborated upon in chapter 4.

1.2.4 Outline of the study

The current chapter, chapter 1, provides the introduction in which the problem statement, the aim of the research, the sub-questions, the research approach, the outline and relevance of the study are addressed.

Chapter 2 provides additional background information needed to gain further insight in the current problem that developing countries face in dealing with hazardous pesticides. In order to do so, the

chapter provides facts and figures on the current global trade of hazardous pesticides. Furthermore, the chapter describes the classification methods for pesticides to understand what and who classifies a pesticide as hazardous. Exposure routes, adverse health effects of pesticides, the incidence of pesticide poisoning are addressed in order to comprehend the impact of pesticides. Afterwards, the chapter describes why developing countries are more susceptible to pesticide poisoning, why agrochemical companies place their hazardous pesticides on the markets of these countries and why differences in safety standards exist. Lastly, the chapter provides some background information on how the concerns on the use of hazardous pesticides were raised. The chapter aims at answering sub-question 1.

Chapter 3 describes the legal framework, its interpretation and application. More specifically, the relevant conventions for international trade on pesticides, European regulations and human rights law, especially the right to health and the right to food, are addressed. Furthermore, the chapter includes the effects of hazardous pesticides on these human rights. The legal framework concerning hazardous pesticides addressed in the current study is focussed on the international trade of hazardous pesticides. The legal framework on foreign direct investment is not addressed. This decision was made because the legal framework on international trade provides insight in international environmental standards and why hazardous pesticides can or cannot be put on the EU's internal and external market. However, the fact that corporations affect human rights and the environment via their subsidiaries should not be ignored and, therefore, foreign direct investment is included in the discussions on accountability. This chapter aims at answering sub-questions 2 and 3.

Chapter 4 aims at creating an approach to determine accountability. In order to design this approach, two concepts were used: the concept of *accountability* according to Bovens and the concept of *legitimacy* according to Black. In order to be able to apply the term in following chapters, *State responsibility* is explained in chapter 4 as well.

Chapter 5 determines the accountability of the EU and its Member States with Germany serving as an example. This chapter addresses sub-question 4.

Chapter 6 aims at determining the accountability of the agrochemical companies BASF, Bayer CropScience and Syngenta. This chapter addresses sub-question 5.

Chapter 7 determines the accountability of developing countries in general, taking into account specifically the right to health and the right to food. This chapter addresses sub-question 6. Furthermore, the chapter provides an overview and integrates key findings of chapter 5, 6 and 7.

Chapter 8 aims at answering the research question by discussing how the findings of the current study could contribute to enhanced corporate accountability. Furthermore, strengths and limitations of the study and recommendations for future research are discussed.

1.2.5 Definition of terms

For the purpose of the current study, several terms need to be defined. *Responsibility* results from the breach of an *obligation* which in turn arises from legally binding texts. The term *duty* is only used when the UN's Guiding Principles on Business and Human Rights are addressed and this term refers to the State's obligations that arise from international human rights law. When the current study addresses *liability*, this is defined as financial compensation for the damages that occurred due to the breach of an obligation.³⁷ Several other terms are defined throughout the current study.

1.2.6 Relevance of the study

The concerns on the adverse human health and environmental effects of hazardous pesticides have been extensively addressed in literature. In addition, the existence of double standards, the compliance of agrochemical corporations with legislation on, for example, labelling and the link between hazardous pesticides with human rights have been addressed in several reports and journal articles. However, the accountability of transnational agrochemical companies and the role the EU should play in preventing human rights violations caused by hazardous pesticides produced by transnational corporations is still unclear. The current study aims at clarifying accountability in order to enhance corporate accountability because this would create the possibility to address the violations more effectively. Determining the accountability of involved actors provides insight in how they should behave. In addition, this may provide recommendations to improve corporate accountability and, subsequently, get closer to bridging the accountability gap. Bernaz explains what bridging the gap entails.

[Bridging] the accountability gap is to be understood as both setting standards and attempting to change corporate behaviours so that they become respectful of human rights and holding corporations and businesspeople to account if violations occur.³⁸

The Special Rapporteur on the right to food acknowledges the negative effects of hazardous pesticides use on human health and the environment, the existence of differing safety standards and the issue of

37 B van der Meulen, *EU Food Law Handbook* (European Institute for Food Law Series, Volume 9, Wageningen Academic Publishers, Wageningen 2014) 62

38 N Bernaz, *Business and Human Rights: History, Law and Policy - Bridging the Accountability Gap* (Human Rights and International Law, Routledge, London 2017) 9

unclear accountability for businesses.³⁹ In her report of 2017, several recommendations are provided for States, three concern the regulation of corporations. In these recommendations, all States seem to be treated equally, regardless of their capacity to implement such recommendations. Therefore, the current study investigates the challenges faced by developing countries to deal with hazardous pesticides in order to determine the countries' capacity to deal with the recommendations. Exploring the accountability of involved actors may give rise to other recommended solutions for the issue than the ones mentioned in the Special Rapporteur's report.

39 UNGA, 'Report of the Special Rapporteur on the Right to Food ' (2017) UN Doc A/HRC/34/48 paragraph 8-39, 51, 73

2 The impact of hazardous pesticide uses on human health and developing countries

According to the Pesticide Action Network (PAN), it can be assumed that, globally, every population is exposed to pesticides due to their abundant presence in food products and the environment.⁴⁰ This indicates that everyone on earth can experience adverse health effects that can be associated with pesticide exposure. This chapter aims at a more in-depth understanding of the problem that occurs due to the trade of hazardous pesticides.

2.1 Global use of hazardous pesticides

According to data from the UN's Food and Agricultural Organisation (FAO), the global use of pesticides has increased from 3,850k to almost 4,100k tonnes of active ingredients between 2010 and 2016 (figure 1).⁴¹ Asia accounts for 53.2 percent of the total pesticide use (figure 2). China, the United States of America (US) and Brazil are among the top 10 countries that use the most pesticides. According to PAN Asia and the Pacific (PAN AP), China is not only the biggest user but also the biggest producer of pesticides.⁴²

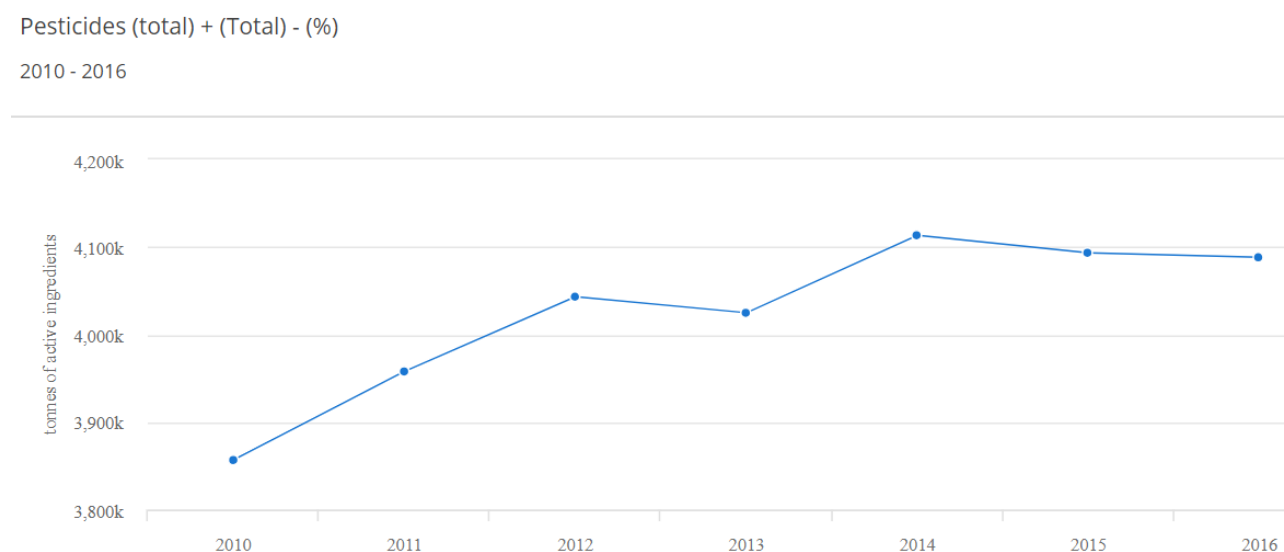


Figure 1. Global pesticide uses between 2010 and 2016 in tonnes of active ingredients. Graph obtained by FAO STATS.⁴³

40 PAN Germany, *Pesticides and Health Hazards: Facts and Figures* (PAN Germany, Hamburg 2012) 3

41 FAO, 'FAOSTAT- Pesticide Use' (FAO, 2018) <<http://www.fao.org/faostat/en/#data/RP/visualize>> accessed 5 January 2019

42 PAN AP, *Communities in Peril: Global report on health impacts of pesticide use in agriculture* (Red Leaf Printing Press, Philippines 2010) 4

43 FAO, 'FAOSTAT- Pesticide Use' (FAO, 2018) <<http://www.fao.org/faostat/en/#data/RP/visualize>> accessed 5 January 2019

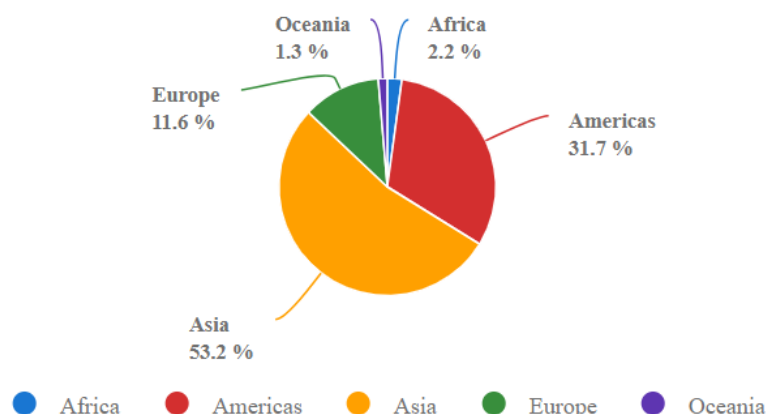


Figure 2. Percentage of global pesticide use per continent. Data obtained from FAO STATS.⁴⁴

PAN Germany stated in 2012 that 400 highly hazardous pesticides (HHPs) were available on the global market.⁴⁵ PAN AP states that in Asia, 82 out of 150 registered active ingredients were HHPs and 7 out of 10 of the most used pesticides were HHPs in 2010.⁴⁶ In 2018, PAN International published an updated version of the '*PAN international List of Highly Hazardous Pesticides*' (PAN List of HHPs).⁴⁷ Such a list was first adopted in 2008 and published in 2009. The list has been frequently updated according to changes in the classification system for individual pesticides. The pesticides mentioned in the list of 2018 were revised by PAN International in 2013 and 2014.⁴⁸ The list takes into account the international classification systems based on hazards, such as the WHO Classification which is explained in more detail in subparagraph 2.2.2.⁴⁹

Before the legal framework concerning the trade of hazardous pesticides was developed, 15 European and American multinational agrochemical companies accounted for most of the pesticide sales.⁵⁰ In 2010, 6 of these companies dominated 80 percent of the pesticide market.⁵¹ Currently, three leading multinational agrochemical companies with their headquarters in Europe are Syngenta (Switzerland), Bayer CropScience (Germany) and BASF (Germany).⁵² Together, these companies control 47 percent

44 ibid

45 PAN Germany, *Pesticides and Health Hazards: Facts and Figures* (PAN Germany, Hamburg 2012) 4

46 PAN AP, *Communities in Peril: Global report on health impacts of pesticide use in agriculture* (Red Leaf Printing Press, Philippines 2010) xii

47 PAN International, *PAN International List of Highly Hazardous Pesticides* (PAN, Hamburg 2018)

48 ibid Impressum

49 PAN Germany, *Pesticides and Health Hazards: Facts and Figures* (PAN Germany, Hamburg 2012) 4

50 PAN AP, *Communities in Peril: Global report on health impacts of pesticide use in agriculture* (Red Leaf Printing Press, Philippines 2010) 2

51 ibid

52 Institutional Shareholder Services Inc. (ISS ESG), 'Industry Focus Chemicals' (2019) 1. See also PAN Germany, *Highly Hazardous Pesticides from BASF, Bayer, and Syngenta! Results of an International Investigation* (PAN Germany, Hamburg 2011) 5. See also Paula Barrios, 'The Rotterdam Convention on Hazardous Chemicals: A Meaningful Step Towards Environmental Protection?' (2004) 16
GeoIntlEnvtlILRev690

of the world pesticide market.⁵³ According to research performed by PAN Germany in 2012, BASF, Bayer and Syngenta sell 55, 64 and 56 HHPs on their websites, respectively. These HHPs are listed on the PAN List of HHPs.⁵⁴

2.2 The classification of Pesticides

In literature, often the term *hazardous* is used when pesticides are addressed. Therefore, it is important to understand who and what classifies a pesticide as hazardous. This paragraph provides a background concerning classification systems for pesticides.

Pesticides are meant to kill, repel or inhibit the growth of weeds, bacteria, fungi, insects and also rodents. Therefore, pesticides can be classified according to their target, such as herbicides, bactericides, fungicides, insecticides and rodenticides.⁵⁵ The classification of pesticides based on their chemical structure or their hazards are two other methods to classify pesticides.⁵⁶

2.2.1 Classification based on chemical structure

The four pesticide groups that result in adverse effects on human health and have the highest supply demand are: *organochlorines*, *organophosphates*, *carbamates* and *pyrethroids*.⁵⁷

Organochlorines consist of carbon-and chlorine atoms.⁵⁸ The organochlorine pesticides are mainly used in the treatment of vector-diseases, such as Malaria.⁵⁹ In agriculture, certain vegetables, fruits, cereals and meat can be treated with organochlorines.⁶⁰ Dichlorodiphenyltrichloroethane (DDT), aldrin and dieldrin are examples of organochlorine pesticides and have been used on a worldwide basis.⁶¹

Garcia and colleagues described in their review article the chemical and toxic characteristics of organophosphates.⁶² Organophosphates are ester-compounds derived from phosphoric acid. In

53 PAN Germany, *Highly Hazardous Pesticides from BASF, Bayer, and Syngenta! Results of an International Investigation* (PAN Germany, Hamburg 2011) 6

54 *ibid* 6, 8

55 Ki-Hyun Kim, Ehsanul Kabir and Shamin Ara Jahan, 'Exposure to Pesticides and the Associated Human Health Effects' (2017) 575 *SciTotalEnviron* 526. See also GA Matthews, *Pesticides: Health, Safety and the Environment* (2 edn John Wiley & Sons, Hoboken, New Jersey 2016)1-32

56 Francisco Prieto Garcia and others, 'Pesticides: Classification, Uses and Toxicity. Measures of Exposure and Genotoxic Risks' (2012) 1 *JREST* 281

57 *ibid*

58 Rachel Carson and Edward Arthur Alexander Lord Shackleton, *Silent spring* (A Penguin book ; 2268, [1st] Penguin books [ed]. edn Penguin Books, in association with Hamish Hamilton, London 1965) 33-35

59 Francisco Prieto Garcia and others, 'Pesticides: Classification, Uses and Toxicity. Measures of Exposure and Genotoxic Risks' (2012) 1 *JREST* 282

60 Lesa A Thompson and others, 'Organochlorine Pesticide Contamination of Foods in Africa: Incidence and Public Health Significance' (2017) 79 *JVMS*751

61 *ibid*

62 Francisco Prieto Garcia and others, 'Pesticides: Classification, Uses and Toxicity. Measures of Exposure and Genotoxic Risks' (2012) 1 *JREST*

agriculture, most often pesticides from this group are used. Agricultural products treated with those pesticides are vegetables, fruit trees, grains, sugarcane and cotton.⁶³ Both organophosphates and organochlorines are persistent and lipophilic which means they are not degraded easily and can accumulate in tissues and the environment.⁶⁴ Non-organic pesticides are less persistent and more water-soluble.⁶⁵ Carbamates are esters as well, as described by Garcia and colleagues.⁶⁶ These compound are derived from dimethyl N-methyl carbamic acid. This kind of pesticides are less persistent than the organophosphates and organochlorines. Pyrethroids are originally natural compounds derived from flowers and used as insecticides. Nowadays, synthetic pyrethroids are produced and available on the market.⁶⁷

According to the WHO, a benefit of classifying pesticides in chemical categories is that, often, pesticides belonging to one group share a common antidote.⁶⁸ Furthermore, in subparagraph 2.3.2 the adverse health effects of pesticides are discussed according to the four chemical groups mentioned above. Thus, pesticides in one chemical group can also share a common mode of action. However, the classification of pesticides on their chemical structure is not sufficient because pesticides can belong to more than one type of chemical. In addition, the chemical's nomenclature, which in turn is based on the chemical's structure, can result in confusion. For example, thiocarbamates can be mistaken as carbamates. However, thiocarbamates are not cholinesterase inhibitors (see subparagraph 2.3.2 of the current study) and, therefore, do not share the same mode of action as carbamates.⁶⁹ Even though the classification based on chemical structure is a commonly used method, the EU and the WHO both classify pesticides based on their hazard.⁷⁰

63 ibid 282

64 ibid 281. See also Lesa A Thompson and others, 'Organochlorine Pesticide Contamination of Foods in Africa: Incidence and Public Health Significance' (2017) 79 JVMS 761

65 Ki-Hyun Kim, Ehsanul Kabir and Shamin Ara Jahan, 'Exposure to Pesticides and the Associated Human Health Effects' (2017) 575 SciTotalEnviron 526

66 Francisco Prieto Garcia and others, 'Pesticides: Classification, Uses and Toxicity. Measures of Exposure and Genotoxic Risks' (2012) 1 JREST

67 ibid 282

68 WHO, *The WHO Recommended Classification of Pesticides by Hazard and Guidelines to Classification: 2009* (WHO, Geneva 2010) 9

69 ibid

70 PAN Germany, *Pesticides and Health Hazards: Facts and Figures* (PAN Germany, Hamburg 2012) 4. See also Chapter 3, subparagraph 3.1.4 of the current study and Regulation (EC) No 1271/2008 of the European Parliament and of The Council on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 [2010] OJ L353/1 L353

2.2.2 Classification according to hazard

In 1975, the WHO proposed to classify pesticides based on their hazardous properties and provided guidelines to do this.⁷¹ The WHO's recommended guidelines were accepted and are reviewed regularly. In 2002, the '*Globally Harmonized System of Classification and Labelling of Chemicals*' was introduced by the UN's Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals (GHS). The WHO's guidelines are still applied but are now aligned with the Acute Toxicity Hazard Categories from the GHS.⁷²

The WHO Classification defines the hazard of a pesticide as:

(...) the acute risk to health (that is, the risk of single or multiple exposures over a relatively short period of time) that might be encountered accidentally by any person handling the product in accordance with the directions for handling by the manufacturer or in accordance with the rules laid down for storage and transportation by competent international bodies.⁷³

The WHO Classification is based on toxicity data obtained from rats. When the exposure dose (of the pesticide) results in the death of 50 percent of the rats, the so-called "LD₅₀-value" is obtained. This value is used to classify the pesticides according to their hazard. The WHO states that the majority of the classifications are based on the oral LD₅₀-values. Since dermal exposure to pesticides accounts for the majority of pesticide exposures, it is stressed by the WHO that the dermal LD₅₀-values should be taken into account as well. These classification recommendations apply for both single active ingredients and mixed ingredients. The manufacturer should provide toxicological data on their pesticide formulations but when this is not possible, the formulation's classification is based on available LD₅₀-values.⁷⁴ Table 1 shows the WHO Classification Classes, ranging from extremely hazardous to unlikely to present acute hazard. According to the WHO, oral intake of 5 millilitres of a Class Ia pesticide is sufficient to kill an adult human.⁷⁵

71 WHO, *The WHO Recommended Classification of Pesticides by Hazard and Guidelines to Classification: 2009* (WHO, Geneva 2010)

72 ibid 1

73 ibid 3

74 ibid

75 UNEP, FAO and WHO, *Childhood Pesticide Poisoning: Information for Advocacy and Action* (UNEP Chemicals, Chatelaine 2004) 27

Table 1. Acute Toxicity Hazard Categories from the GHS. Table obtained from the WHO.⁷⁶

WHO Class		LD ₅₀ for the rat (mg/kg body weight)	
		Oral	Dermal
Ia	Extremely hazardous	< 5	< 50
Ib	Highly hazardous	5–50	50–200
II	Moderately hazardous	50–2000	200–2000
III	Slightly hazardous	Over 2000	Over 2000
U	Unlikely to present acute hazard	5000 or higher	

In the current study, four HHPs are mentioned that are involved in the trade between the EU and developing countries. Firstly, Anilofos is not approved for use in the EU.⁷⁷ Anilofos is an organophosphorus pesticide and acute toxic after oral ingestion.⁷⁸ According to the WHO classification, this pesticide is moderately hazardous (Class II) with an LD₅₀-value of 475 mg/kg.⁷⁹ Anilofos is not included in PAN List of HHPs. PAN states that, according to the WHO, pesticides classified as (WHO Class II), have resulted in ‘thousands of poisonings, especially in developing countries’ but PAN has, nevertheless, decided not to include those in the HPP list because Class II pesticides are not acute toxic.⁸⁰ Secondly, Atrazine is banned in the EU⁸¹ and listed in the PAN List of HHPs⁸². It is classified as slightly hazardous (WHO Class III) with an LD₅₀-value of 4000 mg/kg.⁸³ Atrazine is persistent when it enters groundwater and prolonged oral exposure has serious health consequences.⁸⁴ Thirdly, Paraquat is banned within the EU.⁸⁵ This pesticide was classified in 2009 as moderately hazardous (WHO Class

76 WHO, *The WHO Recommended Classification of Pesticides by Hazard and Guidelines to Classification: 2009* (WHO, Geneva 2010) 5

77 European Commission, 'EU Pesticide Database - Anilofos' (last updated 4 April 2016) <<http://ec.europa.eu/food/plant/pesticides/eu-pesticides-database/public/?event=activesubstance.detail&language=EN&selectedID=963>> accessed 25 February 2019

78 ECHA, 'Substance information - S-[2-[(4-chlorophenyl)(isopropyl)amino]-2-oxoethyl] O,O-dimethyl dithiophosphate' <<https://echa.europa.eu/substance-information/-/substanceinfo/100.058.851>> accessed 15 February 2019

79 WHO, *The WHO Recommended Classification of Pesticides by Hazard and Guidelines to Classification: 2009* (WHO, Geneva 2010) 24

80 PAN International, *PAN International List of Highly Hazardous Pesticides* (PAN, Hamburg 2018) 9

81 European Commission, 'EU Pesticide Database - Atrazine' (last updated 4 April 2016) <<http://ec.europa.eu/food/plant/pesticides/eu-pesticides-database/public/?event=activesubstance.detail&language=EN&selectedID=972>> accessed 25 February 2019

82 PAN International, *PAN International List of Highly Hazardous Pesticides* (PAN, Hamburg 2018) 24

83 WHO, *The WHO Recommended Classification of Pesticides by Hazard and Guidelines to Classification: 2009* (WHO, Geneva 2010) 34

84 Arnt Vlaardingerboek and others, 'An Inventory and Assessment of Options for Reducing Emissions: Atrazine' (2009) 3 SOCOPSE 8, 11

85 European Commission, 'EU Pesticide Database -Paraquat' (last updated 4 April 2016) <<http://ec.europa.eu/food/plant/pesticides/eu-pesticides-database/public/?event=activesubstance.detail&language=EN&selectedID=972>>

II) with a LD₅₀-value of 150 mg/kg.⁸⁶ However, on the PAN List of HHPs of 2018, Paraquat is classified as WHO Class Ia.⁸⁷ Paraquat exposure via the skin results in irritation of the nose, mouth and throat.⁸⁸ This HHP is persistent in soil and oral ingestion results in 'severe irreversible pulmonary lesions, frequently leading to death'.⁸⁹ Lastly, Phorate is banned within the EU.⁹⁰ The WHO system classifies Phorate as an acute toxic (Class Ia) pesticide with an LD₅₀-value of 2 mg/kg.⁹¹ In addition, it is listed in the PAN List of HHPs.⁹² Phorate can result in death after oral or dermal exposure and has long lasting toxic effects in the environment, especially in aquatic life and can, therefore, be considered as persistent.⁹³

2.3 Exposure to pesticides and their adverse human health effects

The amount of exposure and the potential hazard determines the risk. In order to understand why pesticides, pose a risk for human health, the following two subparagraphs describe the routes of exposure and how the pesticides exert their hazardous effects in the human bodies.

2.3.1 Routes of exposure and risk factors

Exposure to pesticides can be unintentional (occupational and non-occupational) or intentional (suicide or homicide). Non-occupational exposure is often caused by low doses of pesticides in food and drinking water.⁹⁴ Despite the low doses, the presence of pesticide residues in food products that originate from plants or animals is common and results in a significant source of exposure, especially since there are often more than one kind of active substances present in food, so-called *cocktails*.⁹⁵ The interactions between the different kinds of active substances are not fully understood but

[database/public/?event=activesubstance.detail&language=EN&selectedID=1669](http://ec.europa.eu/food/plant/pesticides/eu-pesticides-database/public/?event=activesubstance.detail&language=EN&selectedID=1669)> accessed 25 February 2019

86 WHO, *The WHO Recommended Classification of Pesticides by Hazard and Guidelines to Classification: 2009* (WHO, Geneva 2010) 30

87 PAN International, *PAN International List of Highly Hazardous Pesticides* (PAN, Hamburg 2018) 33

88 Scientific Committee on Plants Opinion on Specific Questions from the Commission Regarding the Evaluation of Paraquat in the Context of Council Directive 91/414/EEC [2002] SCP/PARAQ/002-Final 9

89 *ibid* 3 and 9

90 European Commission, 'EU Pesticide Databases - Phorate ' (last updated 7 April 2016)

<<http://ec.europa.eu/food/plant/pesticides/eu-pesticides-database/public/?event=activesubstance.detail&language=EN&selectedID=1699>> accessed 25 February 2018

91 WHO, *The WHO Recommended Classification of Pesticides by Hazard and Guidelines to Classification: 2009* (WHO, Geneva 2010) 15, 20

92 PAN International, *PAN International List of Highly Hazardous Pesticides* (PAN, Hamburg 2018) 33

93 ECHA, 'Substance information - Phorate' <<https://echa.europa.eu/substance-information/-/substanceinfo/100.005.503>> accessed 15 February 2019

94 Christos A Damalas and Ilias G Eleftherohorinos, 'Pesticide Exposure, Safety Issues, and Risk Assessment Indicators' (2011) 8 *IntJEnvironResPublicHealth* 1407

95 UNGA, 'Report of the Special Rapporteur on the Right to Food ' (2017) UN Doc A/HRC/34/48 paragraph 27

synergistic activity can result in enhanced toxicity. Furthermore, the presence of lipophilic, thus persistent and organic, pesticides is of extra concern due to the ability to accumulate in body fat.⁹⁶

Occupational exposures can occur via three main routes, described by Tomer, Sangha and Ramya in their research article.⁹⁷ Dermal exposure is the most important. Through contact with liquid formulation, splashes or spray mixtures, damaged or perspiring skin can absorb the pesticide. Inhalation of polluted air is a second route of exposure. Droplets of pesticides can enter the human body through the nose or mouth and enter the airways. This direct exposure can only occur when the pesticide is volatile. The risk this exposure poses for human health is 'directly proportional to the degree of volatility of the respective product'.⁹⁸ Hygiene, protective clothing, a nonchalant attitude towards safety and the handling method influence the exposure risk.⁹⁹ The third route of exposure is through oral ingestion. The ingested pesticide enters the gastrointestinal tract via the nose or mouth which can occur when workers are eating, drinking or smoking while spraying.¹⁰⁰

Damalas and Eleftherohorinos described which factors influence pesticide exposure.¹⁰¹ Workers who directly handle pesticides have the highest risk for acute pesticide poisoning, a condition that is further elaborated upon in subparagraph 2.3.2 of the current study. Handling includes the mixing, loading, transport and application of pesticides. The risk increases when safety guidelines and instructions are ignored. Other factors that influence the risk of exposure are packaging, which may spill, and toxicity of added adjuvants. Adjuvants are chemicals that enhance the bioactivity of the active ingredient. Adjuvants can also be added to the pesticide formulation in order to create a more efficient application and killing of the targeted pests. As indicated earlier, the risk can also be influenced by the kind of formulations; liquids can splash or be spilled, solids can create dust when the application equipment is filled. Weather conditions can also increase the exposure risk. Air temperature and humidity can, increase the human's perspiration rate. Also, these climate conditions can influence the chemical's volatility and the worker's choice of protective clothing. Other weather conditions, such as wind, can create spray drifts. These drifts also increase the risk of exposure for residents near the application

96 ibid

97 Vidisha Tomer, Jasvinder Kaur Sangha and HG Ramya, 'Pesticide: an Appraisal on Human Health Implications' (2015) 85 ProcNatIAcadSciIndiaB

98 ibid 451

99 See for the risk factors for occupational exposure to pesticides also Dilshad A Khan and others, 'Adverse Effects of Pesticides Residues on Biochemical Markers in Pakistani Tobacco Farmers' (2008) 1 IntJClinExpMed275

100 Vidisha Tomer, Jasvinder Kaur Sangha and HG Ramya, 'Pesticide: an Appraisal on Human Health Implications' (2015) 85 ProcNatIAcadSciIndiaB 452

101 Christos A Damalas and Ilias G Eleftherohorinos, 'Pesticide Exposure, Safety Issues, and Risk Assessment Indicators' (2011) 8 IntJEnvironResPublicHealth

fields.¹⁰² Workers can bring the pesticide into their home via, for example, contaminated clothes.¹⁰³ Another risk factor for exposure is the inappropriate disposal of wastes and incorrect storage of pesticides.¹⁰⁴ Besides field workers, workers in the pesticide industry and people using pesticides to kill pests in their home are at risk.¹⁰⁵

Children are an important risk group, too, because they are more vulnerable than adults.¹⁰⁶ Together with the FAO and the WHO, the UN's Environmental Programme (UNEP) published in 2011 the document '*Childhood Pesticide Poisoning: Information for Advocacy and Action*' in which risk factors for children's exposure to pesticide are described in order to raise awareness.¹⁰⁷ According to UNEP, children are more exposed to pesticides than adults.¹⁰⁸ Children drink more water and have a higher food intake per body weight than adults. In addition, children's breathing rate is higher. Thus, when water, food or air is contaminated with pesticides, especially children are at risk. Children's playing behaviour also increases the exposure risk, especially when they play near or on contaminated soil. Oral exposure to pesticides is relevant in children because of their urge to put toys and other objects into their mouth. Also, due to children's metabolism, they are more vulnerable to pesticides. A pesticide's level of toxicity depends on factors such as excretion rate and the ability to degrade a chemical into active or non-active metabolites. Contributing to exposure in children are incorrect packaging, indoor use, storage of pesticides and children's inability to read labels. Children from poor families work on their family's farm and are, therefore, also exposed to pesticides.¹⁰⁹ Moreover, mothers can transfer persistent compounds such as organochlorines to their children via breastfeeding¹¹⁰ or through the placenta to their foetus¹¹¹. A study showed that residue levels of certain organochlorine pesticides in breast milk were significantly higher in developing countries than

102 *ibid* 1406

103 PAN Germany, *Pesticides and Health Hazards: Facts and Figures* (PAN Germany, Hamburg 2012) 7

104 *ibid*

105 Christos A Damalas and Ilias G Eleftherohorinos, 'Pesticide Exposure, Safety Issues, and Risk Assessment Indicators' (2011) 8 *IntJEnvironResPublicHealth* 1406

106 UNEP, FAO and WHO, *Childhood Pesticide Poisoning: Information for Advocacy and Action* (UNEP Chemicals, Chatelaine 2004) 11

107 *ibid*

108 *ibid*

109 *ibid* 12-13

110 Kumkum Mishra and Ramesh C Sharma, 'Assessment of Organochlorine Pesticides in Human Milk and Risk Exposure to Infants from North-East India' (2011) 409 *SciTotalEnviron* 4947

111 Safaa Elserougy and others, 'Organochlorine Pesticide Residues in Biological Compartments of Healthy Mothers' (2013) 29 *ToxicolIndHealth* 446

in developed ones.¹¹² Another reason why mothers are a risk group is because of increased risk for miscarriage, birth defects and pre-term delivery due to pesticides.¹¹³

2.3.2 Adverse effects on human health

Their broad scope of targets accounts for the fact that pesticides are not selective and are, consequently, able to interfere in any biological process, not only in the target organisms but in humans as well. Exposure to these chemicals can have serious consequences for humans.¹¹⁴ A pesticide's toxic mode of action depends on its chemical structure.¹¹⁵ In humans, organochlorines are easily absorbed through the skin. Organochlorines affect the central nervous system by disrupting the sodium-potassium in-and outflow across the axon membranes of nerve cells, resulting in a hyperactive state.¹¹⁶ Pesticide poisoning caused by organochlorines has symptoms like headache, dizziness, nausea and vomiting, muscular weakness, ataxia, epileptic seizures and death caused by cardiac arrest.¹¹⁷ Tremors are a typical symptom of poisoning caused by DDT.¹¹⁸

Organophosphates are *cholinesterase inhibitors* and act by inhibiting the enzyme acetylcholinesterase in the central and peripheral nervous system.¹¹⁹ As a consequence, the enzyme accumulates in the synapses and neuromuscular junctions, causing cholinergic symptoms like tachycardia and bradycardia.¹²⁰ Other symptoms are, again, headache and dizziness but also loss of reflexes, seizures, coma and death.¹²¹ Carbamates are cholinesterase inhibitors as well but their mode of action is faster.¹²² Furthermore, carbamates result in allergic reactions and asthma-like symptoms.¹²³ The occupational exposure to both carbamates and organophosphates has been associated with alterations in DNA.¹²⁴ Furthermore, these two pesticide groups are often associated with reported

-
- 112 Kumkum Mishra and Ramesh C Sharma, 'Assessment of Organochlorine Pesticides in Human Milk and Risk Exposure to Infants from North-East India' (2011) 409 *SciTotalEnviron* 4947
 - 113 UNGA, 'Report of the Special Rapporteur on the Right to Food ' (2017) UN Doc A/HRC/34/48 paragraph 25
 - 114 Francisco Prieto Garcia and others, 'Pesticides: Classification, Uses and Toxicity. Measures of Exposure and Genotoxic Risks' (2012) 1 *JREST* 280
 - 115 Vidisha Tomer, Jasvinder Kaur Sangha and HG Ramya, 'Pesticide: an Appraisal on Human Health Implications' (2015) 85 *ProcNatIAcadSciIndiaB* 453
 - 116 *ibid* 454.
 - 117 William F Tordoir and Nico J van Sittert, 'Organochlorines' (1994) 91 *Toxicology* 52-53
 - 118 *ibid* 53
 - 119 Vidisha Tomer, Jasvinder Kaur Sangha and HG Ramya, 'Pesticide: an Appraisal on Human Health Implications' (2015) 85 *ProcNatIAcadSciIndiaB* 453
 - 120 *ibid* 453 -454
 - 121 Francisco Prieto Garcia and others, 'Pesticides: Classification, Uses and Toxicity. Measures of Exposure and Genotoxic Risks' (2012) 1 *JREST* 282
 - 122 *ibid* 282
 - 123 Vidisha Tomer, Jasvinder Kaur Sangha and HG Ramya, 'Pesticide: an Appraisal on Human Health Implications' (2015) 85 *ProcNatIAcadSciIndiaB* 455
 - 124 Vívian F Silva Kahl and others, 'Chronic Occupational Exposure Endured by Tobacco Farmers from Brazil and Association with DNA Damage' (2018) 33 *Mutagenesis* 125

cases of acute poisoning.¹²⁵ According to Tomer, Sangha and Ramya, pyrethroids act on the central nervous system as well.¹²⁶ The compounds are agonists for the sodium channels in the nerve cells. When the compound binds to the channel, the transfer of sodium across the cell's membrane is prolonged. Neurotoxic symptoms, such as tremors and seizures, are the result of this.¹²⁷

Poisoning following pesticide exposure, can be chronic or acute. Acute pesticide poisoning can occur through occupational, intentional and unintentional exposure.¹²⁸ Acute pesticide poisoning is defined as 'any illness or health effect resulting from suspected or confirmed exposure to a pesticide within 48 hours'.¹²⁹ The cause is the exposure to a single dose of a pesticide.¹³⁰ Acute pesticide poisoning can have both local and systemic effects.¹³¹ Effects on the skin¹³², such as dermal abrasions¹³³, or in the eyes¹³⁴, such as blurred sight¹³⁵, are local effects. Systemic effects can involve the respiratory, the cardiovascular and the endocrine system.¹³⁶ Furthermore, allergic reactions and neurotoxicity are systemic as well.¹³⁷ Chronic pesticide poisoning occurs after repeated pesticide intake of low doses.¹³⁸ Consequently, the pesticide residues accumulate in the body.¹³⁹ The development of leukaemia, prostate or breast cancer, lymphomas, reproductive and developmental toxicity, birth defects, declined immune system and death are a few examples of long-term effects of pesticides.¹⁴⁰ To summarise, pesticides can be carcinogenic, toxic for reproduction, endocrine disruptors and genotoxic.

125 PAN Germany, *Pesticides and Health Hazards: Facts and Figures* (PAN Germany, Hamburg 2012) 4

126 Vidisha Tomer, Jasvinder Kaur Sangha and HG Ramya, 'Pesticide: an Appraisal on Human Health Implications' (2015) 85 *ProcNatlAcadSciIndiaB* 454

127 *ibid*

128 Josef G Thundiyil and others, 'Acute Pesticide Poisoning: a Proposed Classification Tool' (2008) 86 *BullWorldHealthOrgan* 206

129 *ibid*

130 Vidisha Tomer, Jasvinder Kaur Sangha and HG Ramya, 'Pesticide: an Appraisal on Human Health Implications' (2015) 85 *ProcNatlAcadSciIndiaB* 452

131 Josef G Thundiyil and others, 'Acute Pesticide Poisoning: a Proposed Classification Tool' (2008) 86 *BullWorldHealthOrgan* 206

132 *ibid*

133 Vidisha Tomer, Jasvinder Kaur Sangha and HG Ramya, 'Pesticide: an Appraisal on Human Health Implications' (2015) 85 *ProcNatlAcadSciIndiaB* 454

134 Josef G Thundiyil and others, 'Acute Pesticide Poisoning: a Proposed Classification Tool' (2008) 86 *BullWorldHealthOrgan* 206

135 Rolando Payán-Rentería and others, 'Effect of Chronic Pesticide Exposure in Farm Workers of a Mexico Community' (2012) 67 *ArchEnvironOccupHealth* 26

136 *ibid*

137 *ibid*

138 Vidisha Tomer, Jasvinder Kaur Sangha and HG Ramya, 'Pesticide: an Appraisal on Human Health Implications' (2015) 85 *ProcNatlAcadSciIndiaB* 452

139 *ibid*

140 Rolando Payán-Rentería and others, 'Effect of Chronic Pesticide Exposure in Farm Workers of a Mexico Community' (2012) 67 *ArchEnvironOccupHealth* 120. See also Vidisha Tomer, Jasvinder Kaur Sangha and HG Ramya, 'Pesticide: an Appraisal on Human Health Implications' (2015) 85 *ProcNatlAcadSciIndiaB* 454

2.3.3 Incidence of pesticide poisoning

The impact of pesticides on human health can be determined by looking into the incidence of acute and chronic pesticide poisoning. Before reading this subparagraph, it is important to note that most of the scientific literature review studies that try to estimate the incidence of pesticide poisoning refer to research that is outdated because they were published earlier than 2003. In addition, in chapter 3 of the current study, it will become clear that the legal framework concerning pesticide trade was improved since 2004. In order to obtain reliable information on incidence, it would be interesting to see more recent numbers for global pesticide use, pesticide poisoning and deaths due to pesticide exposure. This would also provide insight in whether or not the legal framework made a difference in these numbers. Despite efforts, more up to date numbers on the incidence of pesticide poisoning were not found in the current study.

In 1990, the World Health Organisation (WHO) tried to record the incidence of pesticide poisoning in humans.¹⁴¹ However, this was difficult to do because of limited available data from epidemiological studies on the health effects of pesticides in humans. It is noted that cases of severe poisoning are rare occurrences when the numbers are compared with the worldwide pesticide use. Furthermore, data on individual cases of pesticide poisoning were collected via hospital records and this number is considered to be an underestimation because not every individual reports complaints or links the symptoms to pesticide exposure. Globally in 1990, the number of persons suffering from unintentional pesticide poisoning was estimated to lay between 500,000 and 1 million every year, of which 50 percent were agricultural workers. Attributed to pesticide exposure, between 5,000 and 20,000 individuals died each year, of which 75 percent were agricultural workers. The exposure level was often not recorded because epidemiological studies only start when effects have already occurred.¹⁴² According to PAN Germany, the WHO reported that the numbers in their report of 1990 were significantly underestimated.¹⁴³ Furthermore, the WHO no longer receives funding to conduct an epidemiology study on pesticide poisoning, according to PAN Germany.¹⁴⁴ The WHO stated, in 2004, that numbers on pesticide poisoning in children were not available but they expect that the number is large.¹⁴⁵

141 WHO, *Public Health Impact of Pesticides Used in Agriculture* (WHO, Geneva 1990)

142 *ibid* 46

143 PAN Germany, *Pesticides and Health Hazards: Facts and Figures* (PAN Germany, Hamburg 2012) 9

144 *ibid* 9

145 UNEP, FAO and WHO, *Childhood Pesticide Poisoning: Information for Advocacy and Action* (UNEP Chemicals, Chatelaine 2004) 3

The Special Rapporteur on the right to food refers in her report to a literature review performed by Svensson and others in 2013.¹⁴⁶ According to this study, which was also mentioned in chapter 1, the number of deaths due to pesticide poisoning is 200,000 per year globally. This number was based on a study dating from 2003. Svensson considered this number to be an underestimation because of underreporting and false diagnoses by people who do not link the symptoms to pesticide poisoning. The real number was expected to be over 300,000 per year.¹⁴⁷ This number approaches the one found by the World Bank. In their world development report of 2008, a number of 335,000 annual deaths due to pesticide poisoning was estimated, of which 67 percent occur in developing countries.¹⁴⁸ It should be noted that these numbers were based on literature that dates earlier than 2004 as well. Overall, the incidence of acute pesticide poisoning is expected to be higher in developing countries.¹⁴⁹

Pesticide poisoning can be a method to commit suicide.¹⁵⁰ In Korea, 85 percent of the pesticide poisonings are caused by suicides by using Paraquat. Annually in Korea, 2,000 people attempt to commit suicide and 1,200 to 1,400 die. Asia accounts for most of the reported pesticide suicides (91 percent). There, more than 300,000 people die because of this every year.¹⁵¹

2.4 Developing countries and hazardous pesticides

2.4.1 The role of agriculture and pesticides in developing countries

Agriculture plays an important role in developing countries. In 2008, the World Bank published the report '*Agriculture for Development*'.¹⁵² In this report, the World Bank notes that '[a]griculture has features that make it a unique instrument for development' because of its effects on the economy, the environment and people's livelihood. In agriculture-based countries, agriculture accounts for 32 percent of the gross domestic product (GDP). Furthermore, 70 percent of the poor people live in rural areas. In rural areas of agricultural-based countries lived 417 million people, of which 82 percent lived in Sub-Saharan countries. The role of agriculture in transforming countries, such as China and Indonesia, is smaller than in agriculture-based countries. In these countries, agriculture accounts for 7 percent of the GDP. However, 82 percent of the poor people still live in rural areas. In total, 2.2 billion people live in rural areas. Transforming countries are parts of South Asia, east Asia, the Pacific, the

146 M Svensson and others, 'Migrant Agricultural Workers and Their Socio-economic, Occupational and Health Conditions—a Literature Review (SSRN Working Paper Series)' (2013) SSRN

147 *ibid* 6

148 World Bank, *Agriculture for Development* (World Development Report 2008, Quebecor World, Washington, DC 2008) 224

149 Josef G Thundiyil and others, 'Acute Pesticide Poisoning: a Proposed Classification Tool' (2008) 86 *BullWorldHealthOrgan* 205

150 PAN Germany, *Pesticides and Health Hazards: Facts and Figures* (PAN Germany, Hamburg 2012) 8

151 *ibid*

152 World Bank, *Agriculture for Development* (World Development Report 2008, Quebecor World, Washington, DC 2008)

Middle East and North Africa. Countries in Europe, Central Asia, Latin America and the Caribbean are urbanised countries. Agriculture in these countries accounts for 5 percent of the GDP. Businesses involved in agriculture and the food industry account for 33 percent of the GDP. In developing countries, often agriculture-based countries, 50 percent of the citizens live in rural areas. Agriculture provides a relevant source for the livelihood of 86 percent of these people. Out of 3 billion people who live in rural areas, 2.5 billion are involved in agriculture.¹⁵³

2.4.2 Increased risk for human exposure to pesticides in developing countries

The fact that most of the citizens are involved in agriculture partly explains why developing countries face an increased risk of health issues related to agriculture, such as pesticide poisoning. Other factors play a role as well. For instance, malnutrition and infectious diseases can worsen the adverse health effects due to pesticide poisoning.¹⁵⁴ As mentioned in subparagraph 2.3.2, organophosphates and carbamates reduce acetylcholine activity. Infectious diseases and malnutrition both have an inhibitory effect on this enzyme as well.¹⁵⁵ Poverty is another factor.¹⁵⁶ Children in poor families have an increased risk to get exposed to pesticides, but also the poor's ability to access health is insufficient due to 'the lack of coordination of policy making between agriculture and health'.¹⁵⁷

Occupational exposure to pesticides occurs more often in developing countries. Farmers in developing countries overuse pesticides because they do not receive enough training in how to apply and store pesticides.¹⁵⁸ Safety instructions are not followed correctly. This is a consequence of a fear of smaller crop yields, carelessness and of not understanding the warnings.¹⁵⁹ The latter is caused by labels that are printed in another language and symbols that are not understood or misinterpreted.¹⁶⁰ Protective measures, such as clothing, are not available, too expensive, not sufficient, or not used due to weather conditions in developing countries.¹⁶¹ According to Barrios, besides the ability to correctly handle pesticides, developing countries do not have a suitable infrastructure to ensure a sound management

153 ibid 2-4

154 PAN Germany, *Pesticides and Health Hazards: Facts and Figures* (PAN Germany, Hamburg 2012) 7

155 Caio RD Assis and others, 'Erythrocyte Acetylcholinesterase as Biomarker of Pesticide Exposure: New and Forgotten Insights' (2018) 25 *EnvironSciPollutRes*18372

156 PAN Germany, *Pesticides and Health Hazards: Facts and Figures* (PAN Germany, Hamburg 2012) 7

157 World Bank, *Agriculture for Development* (World Development Report 2008, Quebecor World, Washington, DC 2008) 224

158 Paula Barrios, 'The Rotterdam Convention on Hazardous Chemicals: A Meaningful Step Towards Environmental Protection?' (2004) 16 *GeolntlEnvntlLRev*686

159 World Bank, *Agriculture for Development* (World Development Report 2008, Quebecor World, Washington, DC 2008). See also PAN Germany, *Pesticides and Health Hazards: Facts and Figures* (PAN Germany, Hamburg 2012) 7

160 PAN Germany, *Pesticides and Health Hazards: Facts and Figures* (PAN Germany, Hamburg 2012) 7

161 ibid

of pesticides.¹⁶² The sound management of pesticides means that the chemicals are handled in such a way that it protects both human health and the environment.

Most importantly, developing countries use more hazardous pesticides than developed ones. According to Barrios, developing countries lack or do not have the expertise to estimate the risk that pesticides may have on the environment or human health.¹⁶³ Moreover, some developing countries can only afford to buy old and more toxic pesticides because of their expired patent which makes the pesticides cheaper. Developing countries depend on low-cost pesticides in order to control vector-diseases. Especially insecticides, which are more toxic than herbicides, are used because insects are a big source of pests in tropical and subtropical areas. Also, these countries depend on the income from agricultural export and, therefore, use hazardous pesticides to increase their crop yield. The economic benefits from the use of hazardous pesticides increases the developing countries' capacity to meet their citizens' basic needs, such as food demands. In addition, climate change reduces crop yield and dealing with this is a challenge for developing countries. Ensuring food security is already a challenge and climate change is expected to worsen the situation in developing countries. Therefore, setting lower safety and quality standards could be a reaction to this arising problem. Moreover, when a developing country faces a crisis, politically, socially or economically, it may choose to react on the demanding short-term problem rather than to react on the long-term problem of environmental degradation.¹⁶⁴ Overall, the benefits of pesticide use in developing countries outweigh the economic burden of health care costs or lost time for labour.¹⁶⁵

The above mentioned challenges for developing countries imply that a reason for hazardous pesticides use by developing countries is to be able to realise the right to food and food security. The Special Rapporteur on the right to food writes that this is indeed an argument used by, among others, agrochemical companies.¹⁶⁶

2.4.3 Agrochemical companies' incentives for foreign direct investment and export of hazardous pesticides to developing countries

PAN Germany states that 30 percent of the pesticides used in developing countries do not comply with international safety standards.¹⁶⁷ Regulatory systems that manage hazardous chemicals are

162 Paula Barrios, 'The Rotterdam Convention on Hazardous Chemicals: A Meaningful Step Towards Environmental Protection?' (2004) 16 *GeotIntlEnvtlLRev*

163 *ibid* 681

164 *ibid* 523-534, 699-701

165 World Bank, *Agriculture for Development* (World Development Report 2008, Quebecor World, Washington, DC 2008) 224

166 UNGA, 'Report of the Special Rapporteur on the Right to Food' (2017) UN Doc A/HRC/34/48 paragraph 42 and 91

167 PAN Germany, *Pesticides and Health Hazards: Facts and Figures* (PAN Germany, Hamburg 2012) 4

inappropriate or lacking enforcement in developing countries.¹⁶⁸ That is one of the reasons why developing countries still use pesticides that are banned or restricted for use in developed countries.¹⁶⁹

According to Barrios, lower safety standards make pesticide markets in developing countries easier to access for agrochemical companies than the EU's internal market.¹⁷⁰ Syngenta, Bayer CropScience and BASF have subsidiaries in developing countries that produce hazardous pesticides that are banned or restricted for use in the countries where the companies' headquarters are based. The produced pesticides are classified as Ia, Ib or II (extremely to moderately hazardous according to the WHO). Bayer CropScience has subsidiaries in, among other countries, Colombia, Brazil and India. Barrios notes that this company exports a significant amount of hazardous pesticides to developing countries, such as Peru, Guatemala and Panama, as well. Examples are Anilofos and Paraquat. Barrios continues, BASF has 38 producing subsidiaries in developing countries such as Malaysia, Mexico and Korea. BASF's active ingredients are produced in Germany. An example pesticide is Phorate. Syngenta has subsidiaries in China where, among others, Paraquat is produced which is not allowed for use in Switzerland and other developed countries.¹⁷¹ Syngenta also offers Atrazine.¹⁷²

2.5 Creation of safety standards in the EU and challenges faced by developing countries

Maximum residue limits (MRLs) are used in most countries to regulate pesticides. Because of the negative effects of residues present in food and feed products, the EU established MRLs for more than 500 pesticides in more than 370 food products.¹⁷³ With MRLs, the EU wants to ensure consumer protection¹⁷⁴, including vulnerable groups such as children¹⁷⁵. In the EU, MRLs are harmonised among the Member States.¹⁷⁶ Member States have to make sure that the food products entering the internal market are compliant with the MRLs.¹⁷⁷ The European Food Safety Authority (EFSA) provides risk

168 Paula Barrios, 'The Rotterdam Convention on Hazardous Chemicals: A Meaningful Step Towards Environmental Protection?' (2004) 16 *GeointlEnvtlRev* 681

169 World Bank, *Agriculture for Development* (World Development Report 2008, Quebecor World, Washington, DC 2008) 224

170 Paula Barrios, 'The Rotterdam Convention on Hazardous Chemicals: A Meaningful Step Towards Environmental Protection?' (2004) 16 *GeointlEnvtlRev* 692

171 *ibid* 692-694

172 PAN North America, 'The Syngenta Corporation & Atrazine: The Cost to the Land, People & Democracy' (2010) <<http://www.panna.org/sites/default/files/AtrazineReportBig2010.pdf>> accessed

173 EFSA, 'The 2013 European Union Report on Pesticide Residues in Food' (2015) 13(3) *EFSA Journal* 6

174 *ibid*

175 CE Handford, Christopher T Elliott and Katrina Campbell, 'A Review of the Global Pesticide Legislation and the Scale of Challenge in Reaching the Global Harmonization of Food Safety Standards' (2015) 11 *IEAM*

176 *ibid*

177 EFSA, 'The 2013 European Union Report on Pesticide Residues in Food' (2015) 13(3) *EFSA Journal* 6

assessments on chemicals which result in safety limits.¹⁷⁸ The limits are subsequently compared with data on food consumption patterns.¹⁷⁹ This is done in order to make sure that the exposure via food is not larger than the safety limits. The EU has the most stringent MRLs because it is the world's leading importer of agricultural products. The European consumers should be protected against hazardous residues in food that originates from both domestic and non-EU countries.¹⁸⁰

The Codex Alimentarius Commission (Codex) of the World Trade Organisation (WTO) sets international voluntary standards, such as MRLs, in order to improve food safety.¹⁸¹ Handford, Elliott and Campbell looked into different existing pesticide legislations.¹⁸² According to these researchers, the Codex's standards are especially useful for countries without or with limited standards. The EFSA consults with the WTO on their MRLs. Subsequently, the European Commission decides whether a pesticide needs restrictions for use or should be banned from the EU. Both the EU's and the Codex's MRLs are applied in non-EU countries.¹⁸³ According to Van der Meulen and Van der Velden, the Codex' important authority within the WTO indicates that their standards are 'factually almost mandatory' instead of voluntary.¹⁸⁴ Still, not implementing these standards does not result in sanctions.¹⁸⁵ This implies that States should implement the Codex's MRLs. However, safety standards differ a great deal among countries, globally, and some countries do not have MRLs for certain pesticides at all.¹⁸⁶ One reason for this is that developing countries do not have the means to enforce or create MRLs due to the lack of laboratories, insufficient expertise on pesticides, lack of control mechanisms and inadequate storage. When sufficient legislation is in place, enforcement remains a struggle. Furthermore, as mentioned earlier in this chapter, developing countries rely on the export of their agricultural products.

178 *ibid*

179 CE Handford, Christopher T Elliott and Katrina Campbell, 'A Review of the Global Pesticide Legislation and the Scale of Challenge in Reaching the Global Harmonization of Food Safety Standards' (2015) 11 IEAM 528

180 *ibid* 533

181 WTO, "The WTO and the FAO/WHO Codex Alimentarius", accessed 6th October 2018, https://www.wto.org/english/thewto_e/coher_e/wto_codex_e.htm

182 CE Handford, Christopher T Elliott and Katrina Campbell, 'A Review of the Global Pesticide Legislation and the Scale of Challenge in Reaching the Global Harmonization of Food Safety Standards' (2015) 11 IEAM

183 *ibid* 523

184 B van der Meulen, *EU Food Law Handbook* (European Institute for Food Law Series, Volume 9, Wageningen Academic Publishers, Wageningen 2014) 97

185 *ibid*

186 CE Handford, Christopher T Elliott and Katrina Campbell, 'A Review of the Global Pesticide Legislation and the Scale of Challenge in Reaching the Global Harmonization of Food Safety Standards' (2015) 11 IEAM 523

Overall, 80 percent of the developing countries lack enforcement resources and a quarter lacks effective legislation on pesticides.¹⁸⁷

2.6 Raising concerns on the use of hazardous pesticides

The adverse effects of pesticides on the environment have been known for a few decades. In 1992, the United Nations Conference on the Environment and Development (UNCED), the so-called *Earth Summit*, took place in Rio de Janeiro.¹⁸⁸ Together with UN experts and other actors involved in international development, 185 UN Member States assembled. The UNCED focussed on problems the world was confronted with at that time and would be confronted with in the 21st century, such as the use of toxic chemicals.¹⁸⁹ By combining the concerns related to the environment and development, the UNCED aimed at creating more awareness of the problems and creating sustainable development programmes that would improve the protection of the global environment and human's quality of life.¹⁹⁰ These objectives can be traced back to the principles on which the UNCED was built.¹⁹¹ Principle 1 describes that humans are 'at the centre of concerns for sustainable development' and that they are 'entitled to a healthy and productive life in harmony with nature'.¹⁹² Principle 2 describes the State's responsibility to not cause harm in other jurisdictions due to activities within their own jurisdiction or control.¹⁹³ Furthermore, UNCED's Principle 14 provides that 'States should effectively cooperate to discourage or prevent the relocation and transfer of other States of any activities and substances that cause severe environmental degradation or are found to be harmful to human health'.¹⁹⁴ One of the outcomes of the UNCED was Agenda 21 which addresses the problems and the programme areas which should be implemented to deal with them.¹⁹⁵ In chapter 6 of Agenda 21, it is mentioned that children have to be protected against the 'effects of the environment and occupational toxic compounds'.¹⁹⁶ Agenda 21's Chapter 19 addresses the concerns related to toxic chemicals and their

187 UNGA, 'Report of the Special Rapporteur on the Right to Food ' (2017) UN Doc A/HRC/34/48 paragraph 71.

188 UN DESA, 'United Nations Conference on Environment and Development (UNCED), Earth Summit' <<https://sustainabledevelopment.un.org/milestones/unced>> accessed 5 November 2018

189 *ibid*

190 UNSD, 'United Nations Conference on Environment & Development, Rio de Janeiro, Brazil, 3 to 14 June 1992, Agenda 21' (1992) UN Doc A/CONF.151/26/Rev.I/Vol.I

191 UNGA, 'Report of the United Nations Conference on Environment and Development (Rio de Janeiro, 3-14 June 1992)' (1992) UN Doc A/CONF.151/26

192 *ibid* principle 1

193 UNSD, 'United Nations Conference on Environment & Development, Rio de Janeiro, Brazil, 3 to 14 June 1992, Agenda 21' (1992) UN Doc A/CONF.151/26/Rev.I/Vol.I principle 2

194 *ibid* principle 14

195 United Nation's Sustainable Development Goals Knowledge Platform, 'Agenda 21' <<https://sustainabledevelopment.un.org/milestones/unced/agenda21>> accessed 4 November 2018

196 UNSD, 'United Nations Conference on Environment & Development, Rio de Janeiro, Brazil, 3 to 14 June 1992, Agenda 21' (1992) UN Doc A/CONF.151/26/Rev.I/Vol.I paragraph 6.27(a.iv)

long- and short-term effects on the environment and human health.¹⁹⁷ The aim is the sound management of toxic chemicals and dangerous products.¹⁹⁸ Chapter 19 acknowledges that industrialised countries produce and subsequently export chemicals which are banned or restricted for use in their countries to developing countries.¹⁹⁹ However, these importing countries have insufficient scientific information and resources to perform risk assessments for chemicals²⁰⁰ and to ensure the safe use of these chemicals²⁰¹. Furthermore, it is recognised that particularly developing countries use a large number of chemicals.²⁰² Thus, the fact that developing countries face challenges in handling hazardous and toxic chemicals has already been known and acknowledged for over two decades. Chapter 3 provides more in-depth information on chapter 19 of Agenda 21 and how this influenced the current legal framework concerning the trade of hazardous pesticides.

Even though the UNCED's principles include some human rights values, awareness related to the effects of pesticides on human rights was raised later. This was mainly done by Special Rapporteurs appointed by the UN's Human Rights Council. As described in chapter 1, the Special Rapporteur on the right to food published in 2017 a report in which the impact of pesticides on human rights is addressed, especially on the right to food. In 2016, the Special Rapporteur on Toxic Wastes urged States and businesses to 'meet their obligations and responsibilities under the UN Convention on the Rights of the Child regarding air, water and soil pollution, as well as the presence of toxic chemicals in food and consumer products'.²⁰³ In his report of 2018, the Special Rapporteur states that child labour is an important cause of children's exposure to pesticides which is a human rights violation.²⁰⁴ The children's right to maximum development²⁰⁵ and their right to survival and to health²⁰⁶ are involved as well. Furthermore, the Special Rapporteur raises the concern that companies 'are exploiting workers and particularly children in some countries by exposing them to toxic risks they would not allow for workers back home'.²⁰⁷

197 ibid chapter 19

198 ibid paragraph 19.1

199 ibid paragraph 19.35

200 ibid paragraph 19.1

201 ibid paragraph 19.35

202 ibid paragraph 19.1

203 UNGA, 'Report of the Special Rapporteur on the Implications for Human Rights of the Environmentally Sound Management and Disposal of Hazardous Substances and Wastes' (2018) UN Doc A/73/45821 paragraph 26

204 ibid paragraph 42

205 ibid paragraph 4

206 ibid paragraph 27

207 ibid paragraph 92

In 2018, Human Rights Watch published a report on the pesticide use in Brazil.²⁰⁸ The report contains interviews with victims of human rights abuses and recommendations in order to deal with and prevent the abuses. In Brazil, toxic pesticides are sprayed near or directly above areas with schools and communities.²⁰⁹ In the current study, Brazil is not considered a developing country but a country in economic transition. However, according to Human Rights Watch, Brazil is one of the biggest pesticide consumers in the world.²¹⁰ Out of 10, 4 pesticides used in Brazil are banned in the EU.

208 Human Rights Watch, "'You Don't Want to Breathe Poison Anymore' The Failing Response to Pesticide Drift in Brazil's Rural Communities' (2018)

209 *ibid*

210 Human Rights Watch, *Interview: Drowning in Pesticides - Brazil's Industrial Farmers Spray Dangerous Chemicals Near Schools, Villages* (Human Rights Watch, New York 2018)

3 The legal framework on international trade of hazardous chemicals and human rights

Chapter 3 aims at answering sub-questions 2 and 3. Therefore, this chapter consists of two parts. The first part provides insight into the current legal framework concerning the international trade of pesticides and the European legislation on this trade. This is to understand why the trade of banned pesticides between the EU and developing countries is possible. The second part provides insight into the legal framework concerning the human right to health and the right to food, business and human rights and the EU's legal framework concerning human rights.

3.1 International trade of hazardous chemicals

3.1.1 The GATT/WTO system

The pesticide trade concerns international trade. Therefore, this subparagraph provides a short background on the international trade law system. The General Agreement on Tariffs and Trade (GATT) entered into force on 1 January 1947.²¹¹ It forms the basis for the current international trade framework in which 160 countries were involved in 2015. The WTO was established in 1995 and has the task to govern the international trade and strengthen the GATT's dispute-settlement system.²¹² The WTO aims at the liberalisation of trade.²¹³ Literature often refers to "the GATT/WTO system" when addressing international trade law system.

As mentioned earlier, the EU sets higher pesticide standards than other countries. This is possible due to the international trade law framework. The original GATT/WTO system did not specifically address 'domestic environmental health and safety standards'.²¹⁴ When a Party wanted to impose a ban on imports, this would violate provisions with respect to free trade and non-discrimination.²¹⁵ Therefore, Article XX of the GATT provides exceptions, allowing Members to 'protect public morals or to maintain public order' according to Article XX(b).²¹⁶ For protection, WTO Members are allowed to impose barriers to trade, such as food safety standards, against potential harm due to imported products.²¹⁷

211 General Agreement on Tariffs and Trade (adopted 30 October 1947, entered into force 1 January 1948) 64 UNTS 187 (GATT) Preface

212 MJ Trebilcock, *Advanced Introduction to International Trade Law* (Elgar Advanced Introduction Series, Edward Elgar Publishing Ltd, 2015) 10, 11, 24, 25, 26, 138, 150, 151-153

213 WTO, 'The WTO' <https://www.wto.org/english/thewto_e/thewto_e.htm> accessed 01 January 2019

214 MJ Trebilcock, *Advanced Introduction to International Trade Law* (Elgar Advanced Introduction Series, Edward Elgar Publishing Ltd, 2015) 150

215 *ibid*

216 General Agreement on Tariffs and Trade (adopted 30 October 1947, entered into force 1 January 1948) 64 UNTS 187 (GATT) art XX

217 MJ Trebilcock, *Advanced Introduction to International Trade Law* (Elgar Advanced Introduction Series, Edward Elgar Publishing Ltd, 2015) 154-155

These measures are called Sanitary and Phytosanitary (SPS) measures.²¹⁸ The WTO's SPS Agreement states that 'to harmonise [SPS] measures on as wide a basis as possible, Members shall base their [SPS] measures on international standards, guidelines or recommendations'.²¹⁹ When scientific uncertainty exists, Article 5.7 of the SPS Agreement provides to countries the possibility to use a *Precautionary Principle*. This allows WTO Members to impose barriers to trade to protect human, plant or animal health based on the available scientific information.²²⁰ Principle 15 of the UNCED includes the country's right to impose the Precautionary Principle.²²¹

3.1.2 The effects of the UNCED on the trade of hazardous pesticides

The UNCED influenced the current legal framework for the trade and use of hazardous pesticides. In order to reach the UNCED's objectives, the need for collaboration between States and involved actors was emphasised in Agenda 21 which is a non-binding document.²²² According to paragraph 1.3 of Agenda 21, in the first place governments have the responsibility to implement the proposed programme areas through the means of national policies and strategies.²²³ Furthermore, with international collaboration, these national measures should be strengthened. The UN plays an important role in facilitating international collaboration.²²⁴

For the international trade of hazardous pesticides, chapter 19 of Agenda 21 is relevant.²²⁵ Especially, the proposed programme area 'Information exchange on toxic chemicals and chemical risks'²²⁶ has been important in the shaping of the current legal framework concerning the international trade of pesticides. The programme called for compulsory applications and legally binding instruments for the implementation of the Prior Informed Consent (PIC) procedure by the year 2000.²²⁷ The PIC procedure was, between 1989 and 2006²²⁸, a voluntary system and introduced by the FAO and UNEP²²⁹. With this procedure, the FAO and UNEP helped to provide information to governments on the hazardous

218 ibid

219 WTO Agreement on the Application of Sanitary and Phytosanitary Measures (entered into force 1 January 1995) 1867 UNTS 493 (SPS Agreement) art 3

220 ibid art 5.7

221 UNGA, 'Report of the United Nations Conference on Environment and Development (Rio de Janeiro, 3-14 June 1992)' (1992) UN Doc A/CONF.151/26 principle 15

222 UNSD, 'United Nations Conference on Environment & Development, Rio de Janeiro, Brazil, 3 to 14 June 1992, Agenda 21' (1992) UN Doc A/CONF.151/26/Rev.I/Vol.I

223 ibid paragraph 1.3

224 ibid

225 ibid paragraph 19.1-19.76

226 ibid 19.4(c)

227 ibid paragraph 19.38(b) & 19.39(d)

228 Secretariat of the Rotterdam Convention, 'Overview' (Secretariat of the Rotterdam Convention, 2010) <<http://www.pic.int/TheConvention/Overview/tabid/1044/language/en-US/Default.aspx>> accessed 13 November 2018

229 Katharina Kummer, 'Prior Informed Consent for Chemicals in International Trade: The 1998 Rotterdam Convention' (1999) 8 RevEurCompIntEnvironLaw

properties of chemicals and pesticides.²³⁰ This consequently increased the government's ability to assess the risks for human health and the environment posed by these chemicals and pesticides and to make informed decisions on the import and export of such substances.²³¹ Agenda 21 emphasises the need for sharing information on the safety and use of all chemicals between States.²³² Other programme areas proposed in chapter 19 are: improving the risk assessments of chemicals on an international level;²³³ harmonising the labelling and classification of chemicals;²³⁴ developing programmes for the reduction of risks;²³⁵ improving the national abilities to deal with chemicals correctly;²³⁶ and prevent illegal international trade of toxic or dangerous chemicals²³⁷.

In order to meet the objectives mentioned in chapter 19 of Agenda 21, negotiations were initiated by the FAO Council and the UNEP Governing Council. These negotiations led to the creation of several conventions. The Stockholm Convention '*on Persistent Organic Pollutants (POPs)*' which was adopted in 2001 and entered into force on 17 May 2004.²³⁸ This convention aims at the worldwide phasing out of POPs listed in its Annexes. Among these listed POPs, 70 percent are pesticides²³⁹, including several organochlorine pesticides, for instance, DDT, aldrin and dieldrin.²⁴⁰ In 2017, the Stockholm Convention had 179 Parties.²⁴¹ It has been amended several times in order to list chemicals to the Convention. The EU has implemented the provisions of the Stockholm Convention in legal instruments, such as Regulation (EC) No 850/2004 on '*on persistent organic pollutants (...)*'.²⁴² Another convention is the

230 *ibid* 324

231 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 (Rotterdam Convention) Introduction

232 UNSD, 'United Nations Conference on Environment & Development, Rio de Janeiro, Brazil, 3 to 14 June 1992, Agenda 21' (1992) UN Doc A/CONF.151/26/Rev.I/Vol.I paragraph 19.37 and 19.38

233 *ibid* 19.4(a)

234 *ibid* 19.4(b)

235 *ibid* 19.4(d)

236 *ibid* paragraph 19.4(e)

237 *ibid* paragraph 19.4(f)

238 Stockholm Convention on Persistent Organic Pollutants (POPs) as amended in 2009 (adopted 22 May 2004, entered into force 17 May 2004) 2256 UNTS 119 (Stockholm Convention)

239 UNEP and FAO, 'Pesticides' (Rotterdam Convention Secretariat, 2010) <<http://www.pic.int/Implementation/Pesticides/tabid/1359/language/en-US/Default.aspx>> accessed 28 January 2019

240 Lesa A Thompson and others, 'Organochlorine Pesticide Contamination of Foods in Africa: Incidence and Public Health Significance' (2017) 79 *JVMS* 75

241 *ibid*

242 Regulation (EC) No 850/2004 of the European Parliament and of The Council on persistent organic pollutants and amending Directive 79/117/EEC [2004] OJ L158/7 L158

Rotterdam Convention with 161 Parties.²⁴³ This Convention provides the legal framework that allows the EU to export chemicals that are banned within the EU itself.

3.1.3 The Rotterdam Convention on the Prior Informed Consent procedure

The Rotterdam Convention '*on the prior informed consent [PIC] procedure for certain hazardous chemicals and pesticides in international trade*' is an international environmental agreement, adopted in 1998 and entered into force in 2004.²⁴⁴ The Convention provides legally binding obligations to Parties for the implementation of the PIC procedure. As of 1998, States have been able to sign the Convention in order to become a Party.²⁴⁵ A Party can be a State or a so-called *regional economic integration organisation* (REIO).²⁴⁶ An REIO is created by States and the Member States have transferred competence to the REIO on the policy areas that are addressed in the Convention.²⁴⁷ Both REIOs and their Member States are allowed to sign and ratify the Rotterdam Convention, which can result in a dual representation of States.²⁴⁸ In this case, the responsibilities according to the Convention for the REIO as well as those for the Member States should be made clear.²⁴⁹ Furthermore, the extent of the REIO's competence should be declared.²⁵⁰ As a Party, the REIO is allowed to vote for its Member States, including the ones that are also Parties to the convention, but does not have an extra vote for its own organisation as a whole.²⁵¹ The Convention's objectives are 'to promote shared responsibility and cooperative efforts among Parties in the international trade of certain hazardous chemicals in order to protect human health and the environment from potential harm and to contribute to their [the respective hazardous chemicals] environmentally sound use'.²⁵² The obligations can be met 'by facilitating information exchange about their characteristics, by providing for a national decision-

243 UNEP and FAO, 'Status of ratifications' (Rotterdam Convention Secretariat) <<http://www.pic.int/Countries/Statusofratifications/tabid/1072/language/en-US/Default.aspx#note1>> accessed 28 January 2019

244 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 (Rotterdam Convention) Introduction

245 *ibid*

246 *ibid* art 2(g)

247 *ibid* art 2(h)

248 J Vogler, 'The External Environmental Policy of the European Union' in OS Stokke and OB Thommessen (eds), *Yearbook of International Co-operation on Environment and Development 2003/2004* (Earthscan Publications, London 2003) 67

249 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 (Rotterdam Convention) art 25.2

250 *ibid* art 25.3

251 J Vogler, 'The External Environmental Policy of the European Union' in Stokke and (eds), *Yearbook of International Co-operation on Environment and Development 2003/2004* (Earthscan Publications, London 2003)

252 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 (Rotterdam Convention) art 1

making process on their import and export and by disseminating.²⁵³ Hereafter, the Convention's provisions that aim at reaching these objectives are described.

When a Party wants to ban or severely restrict the use of a certain chemical, it has to notify the Secretariat²⁵⁴ of this so-called *final regulatory action*²⁵⁵. The Secretariat's actions are performed by both the FAO and the UNEP.²⁵⁶ The notifications have to include certain criteria specified in the Rotterdam Convention's annexes. Annex I describes what notifications should include with respect to the banned or severely restricted chemicals.²⁵⁷ Annex IV describes the requirements for notifications regarding severely hazardous pesticides.²⁵⁸ The Convention requires Parties to provide information on the chemical's characteristics, such as trade names²⁵⁹, toxicological properties²⁶⁰ and hazard characteristics²⁶¹. In addition, the Parties must provide information on their final regulatory action²⁶², such as their reasons²⁶³, the chemical's effect on human health and the expected effect of the ban or restriction on human health²⁶⁴. Subsequently, the Secretariat evaluates the notification on whether or not the provided data is based on risk assessments and obtained via scientific methods.²⁶⁵ For all listed chemicals in Annex III of the Rotterdam Convention the PIC procedure applies.²⁶⁶ Of all chemicals under the Rotterdam Convention, 73 percent are pesticides.²⁶⁷ In order to list the chemical in Annex III, the Secretariat decides, among other things, whether the final regulatory action would significantly decrease the use of the respective chemical and the risk on human health or the environment.²⁶⁸ Furthermore, the Chemical Review Committee drafts a guidance document on the chemical.²⁶⁹ This document should contain the required information mentioned in Annex I and Annex IV.²⁷⁰ After the decision to list a chemical has been approved, the Secretariat communicates this and the guidance

253 ibid art 1

254 ibid art 5.1

255 ibid art 2(e)

256 ibid Introduction

257 ibid art 5.1

258 ibid art 6.1

259 ibid Annex I art 1(c)

260 ibid Annex I art 1(g)

261 ibid Annex I art 1(e)

262 ibid Annex I art 2(a)

263 ibid Annex I art 2(a)(v)

264 ibid Annex I art 2(a)(vi)

265 ibid art 5.5 and 6.2

266 ibid Annex III

267 UNEP and FAO, 'Pesticides' (Rotterdam Convention Secretariat, 2010)

<<http://www.pic.int/Implementation/Pesticides/tabid/1359/language/en-US/Default.aspx>> accessed 28 January 2019

268 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 (Rotterdam Convention) Annex II (c)

269 ibid art 7.1

270 ibid art 7.1

document to all Parties.²⁷¹ The information on chemicals listed in Annex III should include available alternatives that are safer for human health and the environment.²⁷² With the received information, each Party can make an informed choice on whether they want to ban or restrict the use of the chemical as well.²⁷³ When a Party decides to not approve the import, or only within specified conditions, it is not allowed²⁷⁴ to 'import the chemical from any source'²⁷⁵. Neither is 'the domestic production of the chemical for domestic use' allowed.²⁷⁶ Every six months, the Secretariat communicates to all Parties the received decisions on import.²⁷⁷ The Parties subsequently communicate this information to their industries and exporters.²⁷⁸ Each Party is responsible for creating and implementing national legislative and administrative measures through which compliance can be ensured.²⁷⁹ Importantly, Parties are obligated to provide technical assistance, such as training programmes, to developing countries and countries in economic transition in order to strengthen their infrastructure and capacities to manage the chemicals.²⁸⁰

Article 12 of the Rotterdam Convention describes the Party's obligation to send an *exporting notification*. This article applies when a chemical is not listed in Annex III²⁸¹, a Party did not send their import decision to the Secretariat²⁸² or the Secretariat did not yet communicate the Party's decisions to all Parties²⁸³. A Party that adopted a final regulatory action on the import of a chemical, but still exports this chemical to other Parties, has to send an exporting notification to the importing Party²⁸⁴ preceding the first export since the adoption²⁸⁵. Accordingly, the receiving Party has to send its consent for import to the exporting Party prior to the first export.²⁸⁶ Afterwards, an exporting notification has to be provided with every first export of each calendar year.²⁸⁷ The importing Party can decide to

271 *ibid* art 7.2

272 *ibid* art 15.2

273 Katharina Kummer, 'Prior Informed Consent for Chemicals in International Trade: The 1998 Rotterdam Convention' (1999) 8 *RevEurCompIntEnvironLaw* 323

274 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 (Rotterdam Convention) art 10.9

275 *ibid* art 10.9(a)

276 *ibid* art 10.9(b)

277 *ibid* art 10.10

278 *ibid* art 11.1(b)

279 *ibid* art 11.1(b)

280 *ibid* art 16

281 *ibid* art 12.5(a)

282 *ibid* art 12.5(b)

283 *ibid* art 12.5(c)

284 *ibid* art 12.1

285 *ibid* art 12.2

286 *ibid* art 12.4

287 *ibid* art 12.2

renounce this yearly obligation.²⁸⁸ The exporting Party has to meet labelling obligations in order to provide the importing Parties with sufficient information on the chemical's risk to human health or the environment and on how to manage the chemical safely.²⁸⁹

The convention describes two procedures to include chemicals in the PIC list (Annex III); one in Article 5 for '*banned or severely restricted chemicals*' and the second one in Article 6 for '*severely hazardous pesticide formulations*'.²⁹⁰ A chemical used as a pesticide which is severely hazardous for human health or the environment applies to the second category.²⁹¹ Severely hazardous pesticides do not have to be banned or restricted for use in order to fall under the PIC procedure.²⁹² An important distinction between the two PIC procedures exists.²⁹³ To list industrial chemicals in Annex III, the Secretariat needs to receive a notification of 'at least two PIC regions'.²⁹⁴ These PIC regions were further defined in 'Decision RC 1/2' for the interpretation of Article 5.5 of the Rotterdam Convention.²⁹⁵ The regions are Africa, Asia, Europe, Latin America and the Caribbean, Near East, North America and Southwest Pacific.²⁹⁶ To include hazardous pesticide formulations in the PIC procedure, only one Party has to notify the Secretariat.²⁹⁷ However, this Party has to be a developing country or a country in an economic transition.²⁹⁸ The notification has to include the problems that this Party is facing regarding the use of the hazardous pesticide.²⁹⁹ This provision was included in the Rotterdam Convention to give developing countries the possibility to protect the environment and human health in their countries.³⁰⁰

288 *ibid* art 12.2

289 *ibid* art 13.2

290 Katharina Kummer, 'Prior Informed Consent for Chemicals in International Trade: The 1998 Rotterdam Convention' (1999) 8 *RevEurCompIntEnvironLaw* 326-237

291 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 (Rotterdam Convention) art 2(c)

292 Katharina Kummer, 'Prior Informed Consent for Chemicals in International Trade: The 1998 Rotterdam Convention' (1999) 8 *RevEurCompIntEnvironLaw* 327

293 *ibid*

294 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 (Rotterdam Convention) art 5.2

295 *ibid* art 5.5

296 UNEP and FAO, 'Composition of the PIC Regions' (2004) RC-1/2

297 Katharina Kummer, 'Prior Informed Consent for Chemicals in International Trade: The 1998 Rotterdam Convention' (1999) 8 *RevEurCompIntEnvironLaw*

298 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 (Rotterdam Convention) art 6.1

299 *ibid* art 6.1

300 *ibid* art 6.1

3.1.4 EU's legislation on import and export of hazardous pesticides

In order to implement the Rotterdam Convention in the EU, Regulation (EU) No 649/2012 '*concerning the export and import of hazardous chemicals*' entered into force on the 4th of July in 2012.³⁰¹ The EU was able to sign and ratify the Rotterdam Convention, because of the included provision for REIOs to become a Party.³⁰² The European Commission hereafter referred to as "the Commission", and the EU Member States have a 'joint responsibility' in participating in the Rotterdam Convention.³⁰³ The scientific, technical and administrative responsibilities and the sharing of information, as described in the Rotterdam Convention, are to be fulfilled by the EU Member States together with the European Chemicals Agency (ECHA).³⁰⁴ The Commission, Member States and the ECHA work together in order to meet the international obligations that are described in the Rotterdam Convention.³⁰⁵ The ECHA has the responsibility to create and maintain a database on the export and import of hazardous chemicals.³⁰⁶ This database has to be publicly available.³⁰⁷ Furthermore, the ECHA provides technical and scientific assistance and guidance to ensure the effective implementation of the Regulation.³⁰⁸ The harmonised implementation of Regulation (EU) No 649/2012 among the Member States is preferred by the EU.³⁰⁹ For that reason, the Commission has received implementation powers.³¹⁰ The Commission adopts legally binding acts that are aimed at a uniform implementation³¹¹, the so-called *implementing acts*³¹². Furthermore, the *subsidiarity principle* applies according to Article 5.3 in the Treaty of the EU.³¹³ In policy areas where the EU does not receive exclusive competence, the subsidiarity principle allows the EU to act when the action's objectives cannot be sufficiently reached at Member State level but can be reached at the EU level.³¹⁴

301 Regulation (EU) No 649/2012 of the European Parliament and of The Council concerning the export and import of hazardous chemicals [2014] OJ L 201/61 649/2012 Preamble paragraph 2

302 J Vogler, 'The External Environmental Policy of the European Union' in Stokke and (eds), *Yearbook of International Co-operation on Environment and Development 2003/2004* (Earthscan Publications, London 2003) 67-70

303 Regulation (EU) No 649/2012 of the European Parliament and of The Council concerning the export and import of hazardous chemicals [2014] OJ L 201/61 649/2012 art 5.1

304 *ibid* paragraph 6

305 *ibid* paragraph 6

306 *ibid* art 6.1(a)

307 *ibid* art 6.1(b)

308 *ibid* art 6.1(c) and 6.1(d)

309 *ibid* paragraph 24

310 *ibid* paragraph 24

311 Regulation (EU) No 182/2011 of the European Parliament and of The Council laying down the rules and general principles concerning mechanisms for control by Member States of the Commission's exercise of implementing Powers [2011] OJ L55/13 L55 paragraph 1

312 H Lelieveldt and S Princen, *The Politics of the European Union* (2 edn Cambridge University Press, Cambridge 2015) 258

313 Regulation (EU) No 649/2012 of the European Parliament and of The Council concerning the export and import of hazardous chemicals [2014] OJ L 201/61 649/2012 paragraph 25

314 Consolidated version of the Treaty on the European Union [1993] OJ C326/13 (TEU) art 5.3

The Commission communicates with the Rotterdam Convention's Secretariat on behalf of the EU.³¹⁵ In addition, final regulatory actions imposed by the EU or its Member States are communicated to the Secretariat via the Commission.³¹⁶ Export notifications are communicated via the ECHA, on behalf of the Commission, to the Rotterdam Convention's Parties and other countries.³¹⁷ When the Commission receives a decision guidance document from the Secretariat, the document is subsequently forwarded to its Member States. The Commission has to make import decisions regarding chemicals under the PIC procedure into the EU.³¹⁸ These decisions have to be based on Union legislation and take into account the final regulatory actions of its Member States.³¹⁹

Regulation (EU) No 649/2012 applies for chemicals that are included in the PIC procedure³²⁰ and are, therefore, listed in the Rotterdam Convention's Annex III and part 3 of Annex I of this Regulation³²¹. The Regulation's scope also covers hazardous chemicals that are banned or severely restricted within the EU or a Member State.³²² Furthermore, the Regulation applies to all exported chemical's classification, labelling and packaging.³²³ Provisions in the Regulation concerning procedures on export notifications and the listing of chemicals to for the PIC procedure are in accordance to those in the Rotterdam Convention.

In several articles, Regulation (EU) No 649/2012 refers to Regulation (EC) 1272/2008 '*on classification, labelling and packaging of substances and mixtures*' where these matters are addressed. Regulation (EC) 1272/2008 entered into force for substances on the 1st of December, 2010, and for mixtures on the 1st of June, 2015.³²⁴ With this Regulation, a high standard of human health and environmental protection is ensured by defining requirements for classification, labelling and packaging of substances and mixtures that are put on the internal market.³²⁵ In order to protect human and animal health and the environment worldwide, the harmonisation of legislation on labelling, classification and use of

315 Regulation (EU) No 649/2012 of the European Parliament and of The Council concerning the export and import of hazardous chemicals [2014] OJ L 201/61 649/2012 paragraph 5 and art 5.2(b)

316 *ibid* paragraph 10

317 *ibid* art 5.2(a) and art 8.2

318 *ibid* art 13.1

319 *ibid* paragraph 12 and art 13.2

320 *ibid* art 2.1(a)

321 *ibid* art 3.9

322 *ibid* art 2.1(b)

323 *ibid* art 2.1(c)

324 Regulation (EC) No 1271/2008 of the European Parliament and of The Council on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 [2010] OJ L353/1 L353 art. 62

325 *ibid* paragraph 3

chemicals is encouraged by the EU.³²⁶ The Regulation takes into account the GHS system and, therefore, contributes to the global harmonisation process, according to the EU.³²⁷

The GHS system recommends the harmonisation of labels in order to increase their comprehensibility.³²⁸ The labels concerning products that are classified, according to the WHO Classification recommendations, as Ia or Ib should contain the words “poison” or “toxic”, combined with a symbol. Colour, size and shape should make sure the warning catches the reader’s eyes. For the products classified as Ia or Ib, also the symptoms and treatment of poisoning should be described on the label. The label should also contain the approved name of the formulation and the (active) ingredients, the correct way of use and precautions that should be taken into account when using the product.³²⁹ Regulation (EC) 1272/2008 gives an extensive prescription of labelling requirements.

3.1.5 EU’s legislation on the placing of PPPs on the market

As mentioned in chapter 1, pesticides are PPPs. The EU’s internal policy for the placing on the market of PPPs is addressed in this subparagraph in order to know why the EU would not be willing to place certain PPPs on their internal market. European rules for this were first specified in a Directive (Directive 91/414/EEC).³³⁰ After evaluation by the Commission, the technical and scientific aspects of the Directives were found to be outdated which called for the replacement of the Directive.³³¹ Therefore, a new Regulation, Regulation (EC) No 1107/2009, was adopted on the 21st of October 2009. This new Regulation repealed Directive 91/414/EEC³³² and another Directive which prohibited the placing on the market of certain PPPs and active substances (Directive 79/117/EEC)³³³. The Regulation (EC) No 1107/2009 ‘concerning the placing of plant protection products on the market’ was adopted.³³⁴ The Regulation recognises the relevance of plant production to the European community and the need for PPPs.³³⁵ However, it is also stated in the Regulation that protection of human and animal health and the environment is more important than the protection of plant products.³³⁶ Furthermore, the risks of PPPs on human and animal health and the environment is acknowledged.³³⁷ According to

326 ibid paragraph 8

327 ibid paragraph 6

328 WHO, *The WHO Recommended Classification of Pesticides by Hazard and Guidelines to Classification: 2009* (WHO, Geneva 2010) 5

329 ibid 5

330 Regulation (EC) No 1107/2009 of the European Parliament and of The Council concerning the placing of plant protection products on the market and repealing Council Directives 79/117/EEC and 91/414/EEC [2011] OJ L309/1 L309 paragraph 1

331 ibid paragraph 3

332 ibid

333 ibid paragraph 4

334 ibid paragraph 5

335 ibid paragraph 6

336 ibid paragraph 24

337 ibid paragraph 7

Annex II, paragraph 5, an active substance cannot be considered as a low-risk when it is, among other things, carcinogenic, mutagenic, toxic to reproduction, persistent, neurotoxic or immunotoxic.³³⁸ Regulation (EC) No 1272/2008 provides the guiding articles on the classification of active substances.

The objectives of Regulation (EC) No 1107/2009 are stipulated in article 1. The Regulation aims at a high standard of protection for human and animal health and the environment against exposure to hazardous PPPs.³³⁹ The EU does not want PPPs to be placed on the internal market that negatively affect human and animal health or the environment.³⁴⁰ Therefore, the Regulation allows Member States to impose the Precautionary Principle on PPPs when scientific data is insufficient but concerns exist on the PPP's safety for human and animal health or the environment.³⁴¹ As mentioned earlier, the Regulation also aims at harmonised rules for the placing on the market of PPPs among the EU Member States.³⁴² The rules defined in the Regulation address the authorisation of PPPs for the placing on the market and the PPPs' commercial form, their use and management within the EU.³⁴³

3.2 Legal framework concerning human rights

3.2.1 The International Bill of Human Rights

The Universal Declaration of Human Rights (UDHR) of 1948 provides a 'common standard of achievement for all peoples and all nations'.³⁴⁴ The UDHR is not legally binding and promotes the protection, teaching and education of the mentioned human rights and freedoms. Furthermore, the UDHR aims at equality and dignity for all human beings.³⁴⁵ Two legally binding treaties that enforce the UDHR are the International Covenant on Economic, Social and Cultural Rights (ICESCR) and the International Covenant on Civil and Political Rights (ICCPR). Both entered into force in 1976. Together with the UDHR, these two treaties form the International Bill of Human Rights, providing the basis of human rights protection and the international human rights law.³⁴⁶ Other treaties that create legally binding obligations on rights in the UDHR are, for example, the 1979 Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) and the 1989 Convention on the Rights of the

338 ibid Annex II paragraph 5

339 ibid art 1.3

340 ibid art 1.4

341 ibid

342 ibid

343 ibid art 1.1

344 Universal Declaration of Human Rights (adopted 10 December 1948) UNGA Resolution 217 (III) (UDHR) preamble

345 ibid art 1 and see preamble

346 N Bernaz, *Business and Human Rights: History, Law and Policy - Bridging the Accountability Gap* (Human Rights and International Law, Routledge, London 2017) 84

Child (CRC).³⁴⁷ Once ratified, States are bound to recognise and protect the human rights mentioned in the treaties.³⁴⁸ The UDHR is not directed at States only, but at individuals and groups as well.³⁴⁹ This is important to note because it indicates that individuals who are involved in exposing humans to hazardous pesticides have responsibilities in protecting, teaching and educating human rights and freedoms as well.

The ICESCR puts the general obligation on States to 'take steps, individually and through international assistance and co-operation, especially economic and technical, to the maximum of its available resources, with a view to achieving progressively the full realization of the rights recognized in the present Covenant by all appropriate means, including particularly the adoption of legislative measures'.³⁵⁰ Among the rights mentioned in the ICESCR are the human right to food (Article 11) and the right to health (Article 12) which were first introduced in the UDHR's Article 25 on the right to an adequate standard of living.³⁵¹ Subparagraph 3.2.2 and 3.2.3 discuss the right to health and the right to food more into detail, respectively, because hazardous pesticides affect human health and food.

3.2.2 The right to health

The right to health is included in the ICESCR's Article 12 and also in the CEDAW and CRC and demands that everyone enjoys 'the highest attainable standard of physical and mental health'.³⁵² In General Comment No. 14, the Committee on Economic, Social and Cultural Rights (CESCR) interprets this human right. According to the CESCR, 'the right to health embraces a wide range of socio-economic factors that promote conditions in which people can lead a healthy life, and extends to the underlying determinants of health, such as food and nutrition, housing, access to safe and potable water and adequate sanitation, safe and healthy working conditions, and a healthy environment'.³⁵³ The obligation is not put on States to ensure that individuals live a healthy life but rather focusses on the enjoyment of the right to health.³⁵⁴ Regarding people living in poverty, the CESCR acknowledges the

347 OHCHR, 'The Core International Human Rights Instruments and Their Monitoring Bodies' <<https://www.ohchr.org/en/professionalinterest/pages/coreinstruments.aspx>> accessed 12 November 2018

348 N Bernaz, *Business and Human Rights: History, Law and Policy - Bridging the Accountability Gap* (Human Rights and International Law, Routledge, London 2017) 85

349 Universal Declaration of Human Rights (adopted 10 December 1948) UNGA Resolution 217 (III) (UDHR) art 30

350 International Covenant on Economic, Social and Cultural Rights (adopted 16 December 1966, entered into force 3 January 1978) 993 UNTS 3 (ICESCR) art 2.1

351 Universal Declaration of Human Rights (adopted 10 December 1948) UNGA Resolution 217 (III) (UDHR) art 25

352 International Covenant on Economic, Social and Cultural Rights (adopted 16 December 1966, entered into force 3 January 1978) 993 UNTS 3 (ICESCR) art 12.1

353 OHCHR, 'CESCR General Comment No.14: The Right to the Highest Attainable Standard of Health (Art.12)' (2000) UN Doc E/C.12/2000/4 paragraph 4

354 *ibid*

increasing challenge to realise the right to health due to, for instance, international influences.³⁵⁵ The growing world population is identified as a challenge in realising the right to health as well.³⁵⁶ This is also illustrated by the adverse effects on health due to hazardous pesticides which are used to meet increasing food demands.

Paragraph 12 in the General Comment No. 14 lays out four ‘interrelated and essential elements’ of the right to health.³⁵⁷ The application of these elements can vary between States because of the existing conditions within a State. The first element is *availability*, focussing on the provision of ‘functioning public health and health-care facilities, goods and services, as well as programmes’.³⁵⁸ The second element is *accessibility* to these provided facilities, goods and services to those living within the State’s jurisdiction. Non-discrimination, physical accessibility to services and safe resources such as water, economic accessibility and information accessibility are all important aspects of this element. *Acceptability* is the third element which is focussed on respect for medical ethics and cultural appropriateness. Lastly, the element of *quality* entails the scientific and medical appropriateness of the facilities, goods and services and requires those to be of good quality.³⁵⁹

The right to health imposes the specific State obligations to *respect*, *protect* and *fulfil* the right, besides the general obligation put on States by the ICESCR.³⁶⁰ The obligation to *respect* entails that States should refrain from any action that prevents individuals to fully enjoy the right to health and is, therefore, a negative obligation.³⁶¹ The positive obligation to *protect* the right to health includes that States have to ensure access to health-care facilities, goods and services via, for example, the adoption of legislations. States should ensure that conduct of third parties does not interfere with the four elements of the right to health. States should *fulfil* the right to health, meaning the recognition, adoption and implementation of the right in national policies and legislations. Other examples of measures to be taken are judicial and promotional ones. The obligation to fulfil also requires States to facilitate measures, to realise the right to health for those individuals who are unable to do so themselves and to promote the creation, maintenance and restoration of the population’s health.³⁶² In addition, States ‘are required to formulate, implement and periodically review a coherent national

355 *ibid* paragraph 5

356 *ibid* paragraph 10

357 *ibid* paragraph 12

358 *ibid* paragraph 12 (a)

359 *ibid* paragraph 12 (a)-(d)

360 *ibid* paragraph 30, 33

361 *ibid* paragraph 34

362 *ibid* paragraph 34-37

policy to minimize the risk of occupational accidents and diseases, as well as to provide a coherent national policy on occupational safety and health services'.³⁶³

Article 12.2 of the ICESCR illustrates which steps States Parties need to take in order to fully realise the right to health.³⁶⁴ State Parties have to improve 'natural and workplace environments' in which, among other things, the population's exposure to harmful substances should be prevented.³⁶⁵ This is a relevant step to protect populations and farmers against hazardous pesticides. Concerning the working environment, States Parties should take measures to ensure safety and hygiene. Furthermore, industrial hygiene has to be ensured which entails 'the minimization, so far as reasonably practicable, of the causes of health hazards inherent in the working environment'.³⁶⁶ Another step is to prevent, treat and control, among other things, 'occupational and other diseases'.³⁶⁷ This can be realised by prevention and education programmes on, for instance, pesticide poisoning and sound management.³⁶⁸ One measure to control diseases is the improvement of the epidemiological data collection.³⁶⁹

Regarding the child's right to health, a step that States Parties should take is 'the provision for the reduction of the stillbirth-rate and of infant mortality and for the healthy development of the child'.³⁷⁰ The Parties to CRC express that 'childhood is entitled to special care and assistance' and children should be protected before and after birth.³⁷¹ Article 24 of the Convention is relevant for the current study and describes the obligation of States Parties to recognise and take appropriate measures to implement the child's right to enjoy 'the highest attainable standard of health'.³⁷² In addition, in progressively realising these rights, Article 24.4 states that 'particular account shall be taken of the needs of developing countries'.³⁷³ Human Rights obligate States to protect vulnerable groups.³⁷⁴ With

363 ibid paragraph 37

364 ibid paragraph 2

365 International Covenant on Economic, Social and Cultural Rights (adopted 16 December 1966, entered into force 3 January 1978) 993 UNTS 3 (ICESCR) art 12.2 (b). See also OHCHR, 'CESCR General Comment No.14: The Right to the Highest Attainable Standard of Health (Art.12)' (2000) UN Doc E/C.12/2000/4 paragraph 15

366 OHCHR, 'CESCR General Comment No.14: The Right to the Highest Attainable Standard of Health (Art.12)' (2000) UN Doc E/C.12/2000/4 paragraph 15

367 International Covenant on Economic, Social and Cultural Rights (adopted 16 December 1966, entered into force 3 January 1978) 993 UNTS 3 (ICESCR) art 12.2(c)

368 OHCHR, 'CESCR General Comment No.14: The Right to the Highest Attainable Standard of Health (Art.12)' (2000) UN Doc E/C.12/2000/4 paragraph 16

369 ibid

370 International Covenant on Economic, Social and Cultural Rights (adopted 16 December 1966, entered into force 3 January 1978) 993 UNTS 3 (ICESCR) art 12.2(a)

371 Convention on the Rights of the Child (adopted 20 November 1989, entered into force 2 September 1990) 1577 UNTS 3 (CRC) Preamble

372 ibid art 24.1

373 ibid art 24

374 UNGA, 'Report of the Special Rapporteur on the Right to Food ' (2017) UN Doc A/HRC/34/48 paragraph 5

respect to pesticides, pregnant and lactating women, children, farm workers and agricultural communities are vulnerable groups.³⁷⁵

3.2.3 The right to food

According to General Comment No. 14, 'the right to health is closely related to and dependent upon the realisation of other human rights (...), including the [right] to food'.³⁷⁶ The right to food is included in the ICESCR's Article 11.³⁷⁷ This right demands that human beings have the ability to access adequate food and resources that ensure food security.³⁷⁸ The realisation of the right to food is necessary in order to stop hunger and malnutrition within States.³⁷⁹ The legally binding obligations regarding the right to food are stipulated in Article 11 as well.³⁸⁰ The right has also been included in the CRC and the CEDAW.³⁸¹ In the latter, it is stipulated that States Parties have to ensure 'adequate nutrition during pregnancy and lactation' for women.³⁸² This is of relevance to the current study because exposure to hazardous pesticides in mothers can affect their own health but the chemicals can also be transferred to their children before and after birth. In order to deal with disease and malnutrition, children should be provided with 'adequate nutritious foods and clean drinking-water, taking into consideration the dangers and risks of environmental pollution'.³⁸³

Article 11 on the Right to Food has been interpreted by the CESCR in their General Comment No. 12 of 1999.³⁸⁴ Besides this, the UN's Human Rights Office of the High Commissioner (OHCHR) and the FAO published Fact Sheet No. 34 on the right to adequate food, explaining this right more in detail as well.³⁸⁵ Fact Sheet No. 34 identifies three important characteristics of the right to food, which are *availability*,

375 *ibid*

376 OHCHR, 'CESCR General Comment No.14: The Right to the Highest Attainable Standard of Health (Art.12)' (2000) UN Doc E/C.12/2000/4 paragraph 3

377 International Covenant on Economic, Social and Cultural Rights (adopted 16 December 1966, entered into force 3 January 1978) 993 UNTS 3 (ICESCR) art 11. See also Universal Declaration of Human Rights (adopted 10 December 1948) UNGA Resolution 217 (III) (UDHR) art 25

378 International Covenant on Economic, Social and Cultural Rights (adopted 16 December 1966, entered into force 3 January 1978) 993 UNTS 3 (ICESCR) art 11

379 OHCHR and FAO, *Fact Sheet No. 34, The Right to Adequate Food* (UN, Geneva 2010) 5

380 Hilal Elver, 'The Challenges and Developments of the Right to Food in the 21st Century: Reflections of the United Nations Special Rapporteur on the Right to Food' (2016) 20 JILFA 11

381 OHCHR and FAO, *Fact Sheet No. 34, The Right to Adequate Food* (UN, Geneva 2010) 7

382 Convention on the Elimination of All Forms of Discrimination against Women (adopted 18 December 1979, entered into force 3 September 1981) 1249 UNTS 13 (CEDAW) art 12.3

383 Convention on the Rights of the Child (adopted 20 November 1989, entered into force 2 September 1990) 1577 UNTS 3 (CRC) art 24.2(c)

384 Hilal Elver, 'The Challenges and Developments of the Right to Food in the 21st Century: Reflections of the United Nations Special Rapporteur on the Right to Food' (2016) 20 JILFA 13-14

385 OHCHR and FAO, *Fact Sheet No. 34, The Right to Adequate Food* (UN, Geneva 2010)

accessibility and *adequacy*.³⁸⁶ Available food should originate from natural resources.³⁸⁷ This includes obtaining food via agricultural practices, such as producing crops, and non-agricultural practices, such as fishing.³⁸⁸ In addition, food should be available for trade.³⁸⁹ Accessibility covers the economic and physical access to food. It requires food to be economically affordable at all times³⁹⁰ and that individuals do not have to give up on other needs such as education or medicines, in order to have access to an adequate diet³⁹¹. Additionally, food should be physically accessible.³⁹² This characteristic covers that all individuals should be able to get food, regardless of their age, gender, religion, ethnic heritage or health.³⁹³ With respect to the use of hazardous pesticides, without proper and affordable alternatives the production of food would decrease and food products would become more expensive when these pesticides are not used.³⁹⁴ In developing countries, the use of those pesticides contributes to economically accessible and available food for their citizens. States are also responsible to enable the production of sustainable food which is food that is accessible for current generations and future ones, too.³⁹⁵ Regarding this matter, the Special Rapporteur on the right to food argues that ‘pesticides are responsible for biodiversity loss and water and soil contamination and for negatively affecting the productivity of croplands, thereby threatening future food production’.³⁹⁶ The requirement of *adequacy* covers more than only the individual’s nutritional needs, such as a sufficient amount of vitamins, micro-and macronutrients.³⁹⁷ Food that is adequate also covers quality, quantity, food safety and culturally acceptable foods.³⁹⁸ Adequate food needs to be free of adverse substances.³⁹⁹ Residues of pesticides are adverse substances, affecting food safety.⁴⁰⁰ The Special Rapporteur on the right to food clarifies that ‘[u]nder even the narrowest interpretation of article 11 and general comment No.12,

386 *ibid* 2-3

387 OHCHR, 'CESCR General Comment No.12: The Right to Adequate Food (Art.11)' (1999) UN Doc E/C.12/1999/5 paragraph 12

388 OHCHR and FAO, *Fact Sheet No. 34, The Right to Adequate Food* (UN, Geneva 2010) 2

389 *ibid*

390 OHCHR, 'CESCR General Comment No.12: The Right to Adequate Food (Art.11)' (1999) UN Doc E/C.12/1999/5 paragraph 7

391 OHCHR and FAO, *Fact Sheet No. 34, The Right to Adequate Food* (UN, Geneva 2010) 2

392 *ibid* 3

393 OHCHR, 'CESCR General Comment No.12: The Right to Adequate Food (Art.11)' (1999) UN Doc E/C.12/1999/5 paragraph 13

394 Christos A Damalas, 'Understanding Benefits and Risks of Pesticide Use' (2009) 4 SRE

395 OHCHR and FAO, *Fact Sheet No. 34, The Right to Adequate Food* (UN, Geneva 2010) 4

396 UNGA, 'Report of the Special Rapporteur on the Right to Food ' (2017) UN Doc A/HRC/34/48 paragraph 41

397 OHCHR, 'CESCR General Comment No.12: The Right to Adequate Food (Art.11)' (1999) UN Doc E/C.12/1999/5 paragraph 6

398 *ibid* paragraph 8

399 *ibid*

400 OHCHR and FAO, *Fact Sheet No. 34, The Right to Adequate Food* (UN, Geneva 2010) 3

food that is contaminated by pesticides cannot be considered as adequate food'.⁴⁰¹ Avoiding adverse substances in food can be achieved via public and private instruments aimed at the prevention of contamination of food due to adulteration, bad environmental hygiene and inappropriate handling.⁴⁰² Food that is available, accessible and adequate ensures food security.⁴⁰³ Food security is not a legal obligation. However, together with the realisation of the right to food, food security is needed to stop malnutrition and hunger.⁴⁰⁴ The obligation for States to provide 'access to the minimum essential food which is sufficient, nutritionally adequate and safe, to ensure their freedom from hunger' applies to individuals living in areas under the respective State's jurisdiction.⁴⁰⁵ States that are not able to realise the right to food on their own are obligated to pursue international assistance and collaboration.⁴⁰⁶

The right to food is the individual's 'right to feed oneself in dignity', indicating that the efforts and resources of human beings should be sufficient to meet their dietary needs.⁴⁰⁷ The use of hazardous pesticides can pollute the resources and the required environment. The required environment for humans to realise this right themselves should be ensured by the State.⁴⁰⁸ There is an exception to this rule, the right to food obligates States to provide food to humans in extreme circumstances, such as wars or natural disasters.⁴⁰⁹

The right to food imposes the *respect*, *protect* and *fulfil* obligations on States as well.⁴¹⁰ Regarding the obligation to *respect* access to adequate food, States are not allowed to do anything that hinders humans to access food.⁴¹¹ Secondly, States are obligated to *protect* access to adequate food. This includes that States have to prevent that actions of any individual or organisation hinders other

401 UNGA, 'Report of the Special Rapporteur on the Right to Food ' (2017) UN Doc A/HRC/34/48 paragraph 40

402 OHCHR, 'CESCR General Comment No.12: The Right to Adequate Food (Art.11)' (1999) UN Doc E/C.12/1999/5 paragraph 10

403 OHCHR and FAO, *Fact Sheet No. 34, The Right to Adequate Food* (UN, Geneva 2010) 4

404 *ibid*

405 OHCHR, 'CESCR General Comment No.12: The Right to Adequate Food (Art.11)' (1999) UN Doc E/C.12/1999/5 paragraph 14

406 International Covenant on Economic, Social and Cultural Rights (adopted 16 December 1966, entered into force 3 January 1978) 993 UNTS 3 (ICESCR) art 2.1

407 OHCHR and FAO, *Fact Sheet No. 34, The Right to Adequate Food* (UN, Geneva 2010) 3

408 *ibid* 3-4

409 OHCHR, 'CESCR General Comment No.12: The Right to Adequate Food (Art.11)' (1999) UN Doc E/C.12/1999/5 paragraph 15

410 *ibid* paragraph 15. See also Hilal Elver, 'The Challenges and Developments of the Right to Food in the 21st Century: Reflections of the United Nations Special Rapporteur on the Right to Food' (2016) 20 JILFA 13-14

411 Hilal Elver, 'The Challenges and Developments of the Right to Food in the 21st Century: Reflections of the United Nations Special Rapporteur on the Right to Food' (2016) 20 JILFA 14 and OHCHR, 'CESCR General Comment No.12: The Right to Adequate Food (Art.11)' (1999) UN Doc E/C.12/1999/5 paragraph 15

humans to access food.⁴¹² This obligation also includes that States have to make sure that the food entering their market is both safe and nutritious.⁴¹³ The EU does this by establishing strict MRLs. Thirdly, the obligation to *fulfil* indicates that States have to be proactive in the strengthening of people's ability to access food and to improve the resources.⁴¹⁴

According to Fact Sheet No. 34, soft-law plays an important role in the implementation of right to food.⁴¹⁵ Guidelines and recommendations are examples of such non-binding legal instruments. Important guidelines to implement the right to food is the '*Voluntary Guidelines to Support the Progressive Realization of the Right to Adequate Food in the Context of National Food Security*', hereafter referred to as "the Voluntary Guidelines". These guidelines were adopted in 2004 by the FAO's Council. States can use this Voluntary Guideline in order to create national policies through which they enable an environment for humans to feed themselves in dignity. An objective of the Voluntary Guideline is that governments create measures through which States and non-State Parties of the ICESCR can be held accountable in the realisation of the right to food. The Voluntary Guideline also stimulates non-governmental actors to support the progressive realisation of the right to food.⁴¹⁶

As described in Fact Sheet No. 34, human rights are 'interdependent, indivisible and interrelated'.⁴¹⁷ When one human right is affected, another one may be affected as well. The right to food is, for example, linked to the right to life and the right to health because malnutrition and hunger can endanger both life and health. In addition, the right to water is important in the realisation of the right to food because of the human need to have access to safe drinking water. Malnutrition and hunger can also decrease an individual's learning capacities and therefore the right to education can be affected. A house should enable humans to cook and store food products. Thus, the right to adequate housing is involved. The realisation of the right to work and to social security is important for humans in order to have access to available and adequate food.⁴¹⁸ Thus, when the use of hazardous pesticides affects the right to food or the right to health, more rights can be affected. General Comment No. 12 provides that the realisation of the right to food should not 'interfere with the enjoyment of other human rights'.⁴¹⁹

412 OHCHR, 'CESCR General Comment No.12: The Right to Adequate Food (Art.11)' (1999) UN Doc E/C.12/1999/5

413 OHCHR and FAO, *Fact Sheet No. 34, The Right to Adequate Food* (UN, Geneva 2010) 18

414 OHCHR, 'CESCR General Comment No.12: The Right to Adequate Food (Art.11)' (1999) UN Doc E/C.12/1999/5 paragraph 15

415 OHCHR and FAO, *Fact Sheet No. 34, The Right to Adequate Food* (UN, Geneva 2010) 8

416 *ibid* 8-9

417 *ibid*

418 *ibid* 5-6

419 OHCHR, 'CESCR General Comment No.12: The Right to Adequate Food (Art.11)' (1999) UN Doc E/C.12/1999/5 paragraph 8

3.2.4 The Guiding Principles on Business and Human Rights

In 2011, the UN Guiding Principles on Business and Human Rights were approved, hereafter referred to as “the Guiding Principles”.⁴²⁰ The Guiding Principles are voluntary guidelines that implement three pillars: ‘the State duty to protect against human rights abuses by third parties, including business; the corporate responsibility to respect human rights; and the need for more effective access to remedies’.⁴²¹ In June 2011, the UN’s Human Rights Council (UNHCR) created a Working Group on the issue of human rights and transnational corporations and other business enterprises.⁴²² This working group has the task to promote ‘the dissemination and effective and comprehensive implementation of all three pillars’ of the Guiding Principles.⁴²³ In order to reach this objective, the working group stimulates National Action Plans (NAPs) which define priorities and policy areas for governments based on the Guiding Principles.⁴²⁴ The content of a NAP can differ among States.⁴²⁵ This is why the Working Group keeps a database on all NAPs with the aim of stimulating States to share their information and providing international NAP guidance.⁴²⁶ Since 2014, the UNHRC has been working on a binding business and human rights treaty.⁴²⁷ The so-called “Zero Draft” was published in July 2018, a first official draft to provide such a treaty and aiming at regulating, among other businesses, transnational corporations.⁴²⁸

The Guiding Principles aim at improving standards and practices for businesses to deal with challenges regarding human rights.⁴²⁹ Furthermore, the Guiding Principles ‘apply to all States and to all business

420 Daria Davitti, 'Refining the Protect, Respect and Remedy Framework for Business and Human Rights and its Guiding Principles' (2016) 16 HRLRev

421 UNCHR, 'Report of the Special Representative of the Secretary-General on the Issue of Human Rights and Transnational Corporations and Other Business Enterprises, John Ruggie: Protect, Respect and Remedy: A Framework for Business and Human Rights' (2008) UN Doc A/HRC/8/5 paragraph 9. See also OHCHR, 'Guiding Principles on Business and Human Rights: Implementing the United Nations 'Protect, Respect and Remedy' Framework' (2011) UN Doc A/HRC/17/31 1

422 UNGA, 'Report of the Working Group on the Issue of Human Rights and Transnational Corporations and Other Business Enterprises' (2014) UN Doc A/HRC/26/25 paragraph 1

423 ibid

424 ibid paragraph 10

425 ibid paragraph 13

426 UNGA, 'Human Rights and Transnational Corporations and Other Business Enterprises' (2014) UN Doc A/HRC/RES/26/22 Paragraph 4. See also Daniel Augenstein, 'Negotiating the Hard/Soft Law Divide in Business and Human Rights: The Implementation of the UNGPs in the European Union' (2018) 9 GlobPolicy 256

427 UNHRC, 'Elaboration of an International Legally Binding Instrument on Transnational Corporations and Other Business Enterprises with Respect to Human Rights' (2014) UN Doc A/HRC/26/L.22/Rev.1

428 Business & Human Rights Resource Centre, 'Reflections on the Zero Draft' (Business & Human Rights Resource Centre, 2018) <<https://www.business-humanrights.org/en/about-us/blog/debate-the-treaty/reflections-on-the-zero-draft>> accessed 3 March 2019

429 OHCHR, 'Guiding Principles on Business and Human Rights: Implementing the United Nations 'Protect, Respect and Remedy' Framework' (2011) UN Doc A/HRC/17/31

enterprises, both transnational and others, regardless of their size, sector, location, ownership and structure'.⁴³⁰

Principle 1 of the Guiding Principles concerns the UN Framework's first foundational principle, the *duty to protect*, and states the following:

States must protect against human rights abuse within their territory and/or jurisdiction by third parties, including business enterprises. This requires taking appropriate steps to prevent, investigate, punish and redress such abuse through effective policies, legislation, regulations and adjudication.⁴³¹

The State's duty to protect is the primary obligation in the treaties on human rights.⁴³² The ICESCR obligates States to protect, respect and fulfil the human rights of each individual living in their territory or jurisdiction, including protection against human rights violations by businesses. According to the Guiding Principles, the State's obligation to protect is a standard of conduct, meaning that States are not directly responsible for human rights violations by private actors when these violations cannot be attributed to the State.⁴³³ Nevertheless, States should take all necessary measures 'to prevent, investigate, punish and redress' the violation.⁴³⁴ According to Davitti's interpretation of the Guiding Principles, the so-called *host* States have the primary obligation to protect against human rights abuses by foreign businesses.⁴³⁵ The *home* States are recommended to take steps in order to prevent their businesses to violate human rights abroad.⁴³⁶ Furthermore, the home States should stimulate their businesses to respect human rights in other States.⁴³⁷ States should clearly communicate their expectations that their businesses respect human rights in all their practices.⁴³⁸

430 *ibid*

431 *ibid* paragraph 1

432 UNCHR, 'Report of the Special Representative of the Secretary-General on the Issue of Human Rights and Transnational Corporations and Other Business Enterprises, John Ruggie: Protect, Respect and Remedy: A Framework for Business and Human Rights' (2008) UN Doc A/HRC/8/5 paragraph 9

433 OHCHR, 'Guiding Principles on Business and Human Rights: Implementing the United Nations 'Protect, Respect and Remedy' Framework' (2011) UN Doc A/HRC/17/31 3. See also UNCHR, 'Report of the Special Representative of the Secretary-General on the Issue of Human Rights and Transnational Corporations and Other Business Enterprises, John Ruggie: Protect, Respect and Remedy: A Framework for Business and Human Rights' (2008) UN Doc A/HRC/8/5 paragraph 18

434 OHCHR, 'Guiding Principles on Business and Human Rights: Implementing the United Nations 'Protect, Respect and Remedy' Framework' (2011) UN Doc A/HRC/17/31 3

435 Daria Davitti, 'Refining the Protect, Respect and Remedy Framework for Business and Human Rights and its Guiding Principles' (2016) 16 HRLRev 60

436 OHCHR, 'Guiding Principles on Business and Human Rights: Implementing the United Nations 'Protect, Respect and Remedy' Framework' (2011) UN Doc A/HRC/17/31 4

437 *ibid*

438 *ibid* principle 2

The second foundational principle is the corporate *responsibility to respect* the whole scope of the International Bill of Human Rights.⁴³⁹ Principle 11 specifies this responsibility as:

Business enterprises should respect human rights. This means that they should avoid infringing on the human rights of others and should address adverse human rights impacts with which they are involved.⁴⁴⁰

This responsibility is a 'global standard of expected conduct for all business enterprises wherever they operate'.⁴⁴¹ This principle is a social expectation which is additional to the business' obligation to comply with national law.⁴⁴² Principle 13 states that respecting human rights includes that businesses do not contribute to human rights violations via their own or their business relationships' activities and products.⁴⁴³ Through policy commitment⁴⁴⁴, human rights due diligence processes⁴⁴⁵ and processes which enable remediation of human rights violations⁴⁴⁶, a business is able to fulfil the responsibility to respect human rights⁴⁴⁷. The human rights due diligence procedure should 'include assessing actual and potential human rights impacts, integrating and acting upon the findings, tracking responses, and communicating how impacts are addressed'.⁴⁴⁸

The third foundational principle of *access to remedy* for victims of human rights abuse by businesses. A State can meet its duty to protect human rights when it ensures access to remedies.⁴⁴⁹ This principle is not further elaborated upon in the current study because remedies are not discussed.

3.2.5 The UN Global Compact

The UN Global Compact is an initiative that provides guidance for responsible business practices as well. The initiative was launched in 2000.⁴⁵⁰ Nowadays, it is the largest corporate sustainability initiative. According to the 2017's report, 9500 companies and 3000 non-businesses in more than 160 countries have signed the compact. The UN Global Compact provides ten principles regarding human

439 ibid 14

440 ibid principle 11

441 ibid 13

442 UNCHR, 'Report of the Special Representative of the Secretary-General on the Issue of Human Rights and Transnational Corporations and Other Business Enterprises, John Ruggie: Protect, Respect and Remedy: A Framework for Business and Human Rights' (2008) UN Doc A/HRC/8/5 paragraph 54

443 OHCHR, 'Guiding Principles on Business and Human Rights: Implementing the United Nations 'Protect, Respect and Remedy' Framework' (2011) UN Doc A/HRC/17/31 Principle 13(b)

444 ibid principle 15(a)

445 ibid principle 15(b)

446 ibid principle 15(c)

447 ibid principle 15

448 ibid art 7

449 ibid 27

450 UNGC, *2017 United Nations Global Compact Progress Report: Business Solutions to Sustainable Development* (UNGC, New York 2017) 7

rights, labour, environment and anti-corruption. The aim of the compact is to harmonise companies' operations and strategies for long-term responsible business practices.⁴⁵¹ This so-called "corporate sustainability" is needed for 'long-term corporate success and for ensuring that markets deliver value across society'.⁴⁵² According to the UN Global Compact, business' conduct is inseparably related to the health of workers, communities and the environment. Corporate sustainable businesses can contribute to solving contemporary problems such as water and food crises and climate change.⁴⁵³ The first principle concerns human rights and emphasises that businesses should support and respect the State's duty to protect human rights.⁴⁵⁴ In addition, principle 2 addresses that business practices do not hinder human rights.⁴⁵⁵ The UN Global Compact website provides insight in all its participants.⁴⁵⁶ Both Bayer CropScience and BASF in Germany joined the Global Compact in 2000. Bayer CropScience in Paraguay joined in 2018. Syngenta in Switzerland and Brazil joined in 2009 and 2016, respectively. The practical implications for participating companies is further elaborated upon in subparagraph 6.2.1.

3.2.6 The EU and Human Rights

Two developments have been important for the European human rights framework. Firstly, the adoption of the European Convention on Human Rights and Fundamental Freedoms (ECHR) by the Council of Europe and, secondly, the adoption of the Charter of Fundamental Rights (CFR) by the EU.

As of 1950, Parties could sign the ECHR which entered into force in 1953.⁴⁵⁷ The ECHR aims at the protection of civil and political rights and was the first legally binding instrument in Europe with respect to the human rights mentioned in the UDHR.⁴⁵⁸ The Council of Europe's European Court of Human Rights (ECtHR) interprets the ECHR.⁴⁵⁹ When a contracting Party breaches, or is suspected to breach, one or more of the ECHR's articles, individuals can bring a complaint to the ECHR.⁴⁶⁰ Nowadays, the

451 *ibid* 7, 11

452 UNGC, *Guide to Corporate Sustainability: Shaping a Sustainable Future* (UNGC, New York 2014) 7

453 *ibid*

454 UNGC, 'The Ten Principles of the UN Global Compact' <<https://www.unglobalcompact.org/what-is-gc/mission/principles>> accessed 26 December 2018

455 *ibid*

456 UNGC, 'See Who's Involved - Our Participants' (United Nations) <https://www.unglobalcompact.org/what-is-gc/participants/search?utf8=%E2%9C%93&search%5Bkeywords%5D=&button=&search%5Bper_page%5D=50&search%5Bsort_field%5D=&search%5Bsort_direction%5D=asc> accessed 27 January 2019

457 Council of Europe; and European Court of Human Rights, 'European Convention' <<https://www.echr.coe.int/Pages/home.aspx?p=basictexts&c>> accessed 1 January 2019

458 *ibid*

459 H Lelieveldt and S Princen, *The Politics of the European Union* (2 edn Cambridge University Press, Cambridge 2015) 6

460 Frank Emmert and Chandler P Carney, 'The European Union Charter of Fundamental Rights vs. The Council of Europe Convention on Human Rights and Fundamental Freedoms-A Comparison' (2017) 40 *FordhamIntLJ* 1051

ECHR has 47 Contracting Parties of the Council of Europe.⁴⁶¹ The Council of Europe, based in Strasbourg and founded in 1949, has the task to maintain and develop the 'rule of law, human rights and fundamental freedoms' in order to ensure and increase the European unity.⁴⁶² All EU Member States have acceded to the ECHR.⁴⁶³ The accession of the EU as a whole to the ECHR is allowed according to Article 59.2.⁴⁶⁴ However, the accession is not yet complete.⁴⁶⁵ Augenstein explains two obligations imposed on States by the ECHR.

The ECHR imposes two distinct types of obligation on states – and, by extension, on the Union – to protect human rights in the environmental sphere in relation to private actors: negative obligations to protect Convention rights against violations by private actors as state agents; and positive obligations to protect Convention rights against violations by private actors as third parties. While, in the former case, the private act is attributed to the state so that the state is considered as directly interfering with Convention rights, in the latter case the state violates its obligations by failing to take all reasonable measures to protect individuals against private interference.⁴⁶⁶

The CFR was adopted in 2000 and recognises the founding Treaties' commitments for the EU and its Member States.⁴⁶⁷ It includes all personal, civil, economic and social rights of all EU citizens.⁴⁶⁸ In December 2009, the CFR became legally binding by the adoption of the Treaty of Lisbon.⁴⁶⁹ Therefore, legislation and policies at EU level and Member State level should be compatible with the CFR.⁴⁷⁰ The Court of Justice of the EU (CJEU), based in Luxembourg, interprets the CFR and enables companies, organisations and individuals to claim their rights.⁴⁷¹ All EU Member States and Member State

461 *ibid*

462 H Lelieveldt and S Princen, *The Politics of the European Union* (2 edn Cambridge University Press, Cambridge 2015) 6

463 Frank Emmert and Chandler P Carney, 'The European Union Charter of Fundamental Rights vs. The Council of Europe Convention on Human Rights and Fundamental Freedoms-A Comparison' (2017) 40 *FordhamIntLJ* 1060

464 European Convention on Human Rights (1950) ETS No.005 (ECHR) art 59.2

465 Frank Emmert and Chandler P Carney, 'The European Union Charter of Fundamental Rights vs. The Council of Europe Convention on Human Rights and Fundamental Freedoms-A Comparison' (2017) 40 *FordhamIntLJ* 1061

466 D Augenstein, 'The Human Rights Dimension of Environmental Protection in EU External Relations After Lisbon' in E Morgera (ed), *The External Environmental Policy of the European Union: EU and International Law Perspectives* (Cambridge University Press, Cambridge 2012) 273

467 Equality and Human Rights Commission, 'What is the Charter of the Fundamental Rights of the European Union?' (last updated 3 October 2016) <<https://www.equalityhumanrights.com/en/what-are-human-rights/how-are-your-rights-protected/what-charter-fundamental-rights-european-union>> accessed 24 December 2018

468 *ibid*

469 Frank Emmert and Chandler P Carney, 'The European Union Charter of Fundamental Rights vs. The Council of Europe Convention on Human Rights and Fundamental Freedoms-A Comparison' (2017) 40 *FordhamIntLJ* 1115

470 EPRS, *Briefing EU Policies Delivering for Citizens: Human Rights* (European Parliament, Brussels 2018) 4

471 Equality and Human Rights Commission, 'What is the Charter of the Fundamental Rights of the European Union?' (last updated 3 October 2016) <<https://www.equalityhumanrights.com/en/what-are-human>>

applicants are obligated to accede to the CFR.⁴⁷² In addition to EU law and the ECHR, all EU Member States are Party to the core Covenants on human rights, including the ICESCR and the ICCPR.⁴⁷³

The EU's founding values are set out in the Treaty on the EU (TEU) and include respect for human rights.⁴⁷⁴ According to TEU's Article 2, the EU has the following founding values: 'respect for human dignity, freedom, democracy, equality, the rule of law and respect for human rights, including the rights of persons belonging to minorities'.⁴⁷⁵ These values should be respected and taken into account when creating legislation and both internal and external policies.⁴⁷⁶ In order to reach the EU's objectives stipulated in the TEU, Member States have to fulfil their obligations. Among other things, Member States should 'refrain from any measure which could jeopardise the attainment of the Union's objectives'.⁴⁷⁷

3.2.7 The EU's external policy with respect to human rights

Article 3.5 of the TEU is the first provision addressing the EU's 'relations with the wider world'. Provisions with respect to human rights and the EU's external activities are further elaborated upon in Article 21.1 of the same treaty, which states:

The Union's action on the international scene shall be guided by the principles which have inspired its own creation, development and enlargement, and which it seeks to advance in the wider world: democracy, the rule of law, the universality and indivisibility of human rights and fundamental freedoms, respect for human dignity, the principles of equality and solidarity, and respect for the principles of the United Nations Charter and international law.⁴⁷⁸

The Union shall seek to develop relations and build partnerships with third countries, and international, regional or global organisations which share the principles referred to in the first

rights/how-are-your-rights-protected/what-charter-fundamental-rights-european-union> accessed 24 December 2018

472 Frank Emmert and Chandler P Carney, 'The European Union Charter of Fundamental Rights vs. The Council of Europe Convention on Human Rights and Fundamental Freedoms-A Comparison' (2017) 40 *FordhamIntLJ* 1051. See also

473 Israel de Jesús Butler, *The European Union and International Human Rights Law* (Regional Office for Europe of the OHCHR, Brussels) <https://europe.ohchr.org/Documents/Publications/EU_and_International_Law.pdf> accessed 9 November 2018 7

474 EPRS, *Briefing EU Policies Delivering for Citizens: Human Rights* (European Parliament, Brussels 2018) 4

475 Consolidated version of the Treaty on the European Union (TEU) [signed 7 February 1992, entered into force 1 January 1993] OJ C326 art 2

476 EPRS, *Briefing EU Policies Delivering for Citizens: Human Rights* (European Parliament, Brussels 2018) 1 and 4

477 Consolidated version of the Treaty on the European Union (TEU) [signed 7 February 1992, entered into force 1 January 1993] OJ C326 art 4.3

478 *ibid* art 21.1 subparagraph 1

subparagraph. It shall promote multilateral solutions to common problems, in particular in the framework of the United Nations.⁴⁷⁹

Thus, the EU is committed to engage in multilateral relations based on UN principles. Article 21.2 in the TEU elaborates on the EU's objectives, such as the strengthening and support of 'democracy, the rule of law, human rights and the principles of international law'.⁴⁸⁰ Another important objective is promoting 'sustainable economic, social and environmental development' in developing countries and help to 'develop international measures to preserve and improve the quality of the environment and the sustainable management of global natural resources, in order to ensure sustainable development'.⁴⁸¹ Furthermore, the EU has the objective to abolish international trade barriers in order to ensure 'the integration of all countries into the world economy' and aims at the promotion of good governance.⁴⁸²

The EU's internal and external human rights policies should be consistent.⁴⁸³ The EU's institutions that play an important role in controlling this consistency are the Council of the EU, the Commission and the High Representative of the Union for Foreign Affairs and Security Policy.⁴⁸⁴ The latter, together with the Commission, published in 2011 a joint communication to the European Parliament and the Council with the title '*Human Rights and Democracy at the Heart of EU External Action-Towards a More Effective Approach*'.⁴⁸⁵ The Action Plan addresses measures taken by the EU to promote and enhance human rights abroad.⁴⁸⁶ An example of a consequence for trade partners that do not meet human rights standards is the suspension of technical assistance provided by the EU. According to the Action Plan, the EU provides specific trade measures to countries that share the same values for human rights, labour rights, environment and governance system.⁴⁸⁷ This is also mentioned in article 21.1 of the TEU.

The Action Plan also includes a paragraph on Business and Human Rights in which the need for Corporate Social Responsibility (CSR) is emphasised.⁴⁸⁸ In 2011, CSR was defined by the Commission:

479 *ibid* art 21.1 subparagraph 2

480 *ibid* art 21.2 (b)

481 *ibid* art 21.2 (d) and 21.2 (f)

482 *ibid* art 21.2 (e) and 21.2 (h)

483 *ibid* art 21.3

484 *ibid*

485 European Commission and HR, 'Joint Communication to the European Parliament and The Council on Human Rights and Democracy at the Heart of Eu External Action-Towards a More Effective Approach' COM(2011) 886 final

486 UNWG, *Guidance on National Action Plans on Business and Human Rights* (UN, Geneva 2014) 4

487 European Commission and HR, 'Joint Communication to the European Parliament and The Council on Human Rights and Democracy at the Heart of Eu External Action-Towards a More Effective Approach' COM(2011) 886 final 12

488 *ibid* 12

The Commission puts forward a new definition of CSR as “the responsibility of enterprises for their impacts on society”. Respect for applicable legislation, and for collective agreements between social partners, is a prerequisite for meeting that responsibility. To fully meet their corporate social responsibility, enterprises should have in place a process to integrate social, environmental, ethical, human rights and consumer concerns into their business operations and core strategy in close collaboration with their stakeholders, with the aim of: – maximising the creation of shared value for their owners/shareholders and for their other stakeholders and society at large; – identifying, preventing and mitigating their possible adverse impacts.⁴⁸⁹

The EU stimulates their businesses to integrate due diligence in their operations in order to respect human rights.⁴⁹⁰ In the Action Plan, it is acknowledged that globalisation does not only lead to the possibility for businesses to fulfil human rights but also leads to an increased risk for businesses to be involved in human right violations.⁴⁹¹ The Council supports the UN Guiding Principles⁴⁹² and emphasises that the EU will continue cooperating and supporting the UN’s Working Group on Business and Human Rights⁴⁹³. The Commission communicated its expectations for EU businesses via the publication of a communication on CSR in 2011.⁴⁹⁴ Member States were encouraged to develop their own NAPs by 2012.⁴⁹⁵ The Council stated in 2016 that the ‘EU Member States have taken the lead internationally on developing and adopting NAPs to implement the Guiding Principles’.⁴⁹⁶

The European Commission stimulates trade partner countries to comply with internationally-recognised CSR standards.⁴⁹⁷ The OECD Guidelines for Multinational Enterprises, the UN Global Compact, the ILO’s Tri-Partite Declaration of Principles Concerning Multinational Enterprises and Social

489 European Commission Communication to the European Parliament, The Council, the European Economic and Social Committee and the Committee of the Regions - A Renewed EU Strategy 2011-14 for Corporate Social Responsibility [2011] COM(2011) 681 final 6

490 European Commission and HR, 'Joint Communication to the European Parliament and The Council on Human Rights and Democracy at the Heart of Eu External Action-Towards a More Effective Approach' COM(2011) 886 final 12

491 *ibid*

492 Council Conclusions on Business and Human Rights [2016] 10254/16 paragraph 1

493 *ibid* paragraph 2

494 European Commission and HR, 'Joint Communication to the European Parliament and The Council on Human Rights and Democracy at the Heart of Eu External Action-Towards a More Effective Approach' COM(2011) 886 final 12

495 European Commission Communication to the European Parliament, The Council, the European Economic and Social Committee and the Committee of the Regions - A Renewed EU Strategy 2011-14 for Corporate Social Responsibility [2011] COM(2011) 681 final

496 Council Conclusions on Business and Human Rights [2016] 10254/16 paragraph 3

497 European Commission Communication to the European Parliament, The Council, the European Economic and Social Committee and the Committee of the Regions - A Renewed EU Strategy 2011-14 for Corporate Social Responsibility [2011] COM(2011) 681 final 6

Policy, the ISO 26000 Guidance Standard on Social Responsibility and the UN Guiding Principles are considered the core internationally acknowledged principles and guidelines.⁴⁹⁸

In 2014, Directive 2014/95/EU on 'non-financial and diversity information by certain large undertakings and groups' entered into force.⁴⁹⁹ This Directive makes the Guiding Principles' standard to make public statements a legally binding obligation for large companies and increases transparency. The European Parliament encouraged the need for disclosure of information on business behaviour with respect to sustainable for social and environmental factors.⁵⁰⁰ Large companies are obligated to provide 'a non-financial statement containing information relating to at least environmental matters, social and employee-related matters, respect for human rights, anti-corruption and bribery matters'.⁵⁰¹ The statement should provide information on the applied policies, their effects and risks. Furthermore, due diligence processes on the prevention and mitigation of adverse effects of their policies should be included as well. Member States have the obligation to provide 'adequate and effective means', such as national procedures, in order to ensure compliance of companies.⁵⁰²

Linking the two parts of chapter 3 together, it can be stated that the protection of the environment plays an important role in the full realisation of human rights.⁵⁰³ As described above, the use of hazardous pesticides can affect human rights because they interfere with the right to food, right to health, right to water and the right to safe working conditions. It is also shown that the human rights are interdependent, indivisible and interrelated.

The difference between the two legal systems is the extent to which the State's obligations towards individuals and the individual's right to claim liabilities for State-to-State obligations is recognised.⁵⁰⁴ International environmental law lacks this recognition and that is why more often individuals bring claims concerning environmental responsibilities to human rights courts.⁵⁰⁵

498 *ibid* 6-7

499 Directive 2014/95/EU of the European Parliament and of The Council amending Directive 2013/34/EU as regards disclosure of Non-Financial and Diversity Information by Certain Large Undertakings and Groups [2014] OJ L330/1 L330/1

500 *ibid*

501 *ibid* paragraph 6

502 *ibid* paragraph 10

503 D Augenstein, 'The Human Rights Dimension of Environmental Protection in EU External Relations After Lisbon' in (ed), *The External Environmental Policy of the European Union: EU and International Law Perspectives* (Cambridge University Press, Cambridge 2012) 267

504 *ibid* 271

505 *ibid*

4 Defining concepts and the approach to determine accountability

For the purpose of this chapter, several concepts need to be clarified and the approach used to determine accountability is explained.

4.1 Defining concepts

4.1.1 State responsibility

For the purpose of chapter 5, 6 and 7, the term *State responsibility* needs to be clarified. This, because the accountability of States and the EU as a REIO includes determining whether acts of agrochemical corporations can be attributed to the States or EU or not.

The UNGA's International Law Commission (ILC) provides a definition for *State responsibility*. In 2001, the '*Draft Articles on Responsibility of States for Internationally Wrongful Acts*' were adopted by the ILC.⁵⁰⁶ According to the ILC, 'every internationally wrongful act of a State entails the international responsibility of that State'.⁵⁰⁷ Article 2 of the ILC Draft Articles provides when an act is *internationally wrongful*.

There is an internationally wrongful act of a State when conduct consisting of an action or omission:

- (a) is attributable to the State under international law; and
- (b) constitutes a breach of an international obligation of the State.⁵⁰⁸

Actions from State actors practicing legislative, executive, judicial or other official acts are considered to be an act of the State.⁵⁰⁹ The State is obligated to fully repair an international wrongful act, being material or moral, that causes injury.⁵¹⁰ Moreover, this reparation can be in the form of compensation and restoring the environment that existed before the act.⁵¹¹ If neither are possible, the reparation should occur via 'acknowledgement of the breach, an expression of regret, a formal apology or another appropriate modality'.⁵¹² In 2011, the ILC adopted the '*Draft Articles on the Responsibility of*

506 UNGA, 'Report of the International Law Commission on the Work of its Fifty-third Session' (2001) UN Doc A/56/10 paragraph 76

507 *ibid* 32, art 1

508 *ibid* 34, art 2

509 *ibid* 40, art 4

510 UNGA, 'Report of the International Law Commission - Sixty-third Session' (2011) UN Doc A/66/10 art 31. Article numbers and formulations are the same as those in the *Draft Articles on Responsibility of States for Internationally Wrongful Acts* in UNGA, 'Report of the International Law Commission on the Work of its Fifty-third Session' (2001) UN Doc A/56/10 26-30

511 UNGA, 'Report of the International Law Commission - Sixty-third Session' (2011) UN Doc A/66/10 art 35-36

512 *ibid* art 37

International Organisations'.⁵¹³ The articles are similar to those on State responsibility and apply to international organisations and to States that act in cooperation with those organisations.⁵¹⁴ The ILC's articles apply to different branches of international law, including to human rights law and environmental law.⁵¹⁵ The current study refers to the "ILC Draft Articles" when addressing the Draft Articles on Responsibility for both States and International Organisations.

It must be noted that the ILC Draft Articles are based on secondary rules and not on primary rules; primary rules put binding obligations on States related to their conduct and secondary rules govern the breach of primary rules and its consequences.⁵¹⁶ The ILC Draft Articles have the form of a treaty but has not yet been concluded and is, therefore, not binding.⁵¹⁷ Yet, it should be noted that some provisions in the ILC Draft Articles are also included in customary international law and are, therefore, binding. Overall, according to Caron, 'the articles [ILC Draft Articles] already have had, and will continue to have, tremendous effect on legal thinking, arbitral decisions, and perhaps state practice'.⁵¹⁸ After the adoption of the ILC Draft Articles, it was assumed by Caron that their impact would increase further.⁵¹⁹

4.1.2 The concept of accountability according to Bovens

Corporate accountability is a field of much debate.⁵²⁰ One of the reasons for this is that accountability is not applicable to businesspeople because they are not elected or payed with public funds. Furthermore, a business as a whole is not directly created with the aim of meeting public demands.⁵²¹ Therefore, in order to be able to determine business accountability, an interpretation of the term is needed that is applicable to corporations, which is provided by Bovens in his article '*Two Concepts of Accountability: Accountability as a Virtue and as a Mechanism*'.⁵²² According to him, accountability expresses a sense of 'transparency and trustworthiness' and the broad definition of being accountable is that it is virtue: 'a desirable quality of officials, government agencies or firms'.⁵²³ Bovens does not

513 ibid 52-172

514 ibid 54, art 3

515 M Fitzmaurice, 'International Responsibility and Liability' in D Bodansky, J Brunnée and E Hey (eds), *The Oxford Handbook of International Environmental Law* (Oxford University Press, Oxford 2008) 7

516 UNGA, 'Report of the International Law Commission - Sixty-third Session' (2011) UN Doc A/66/10 2, paragraph 3

517 David D Caron, 'The ILC Articles on State Responsibility: the Paradoxical Relationship between Form and Authority' (2002) 96 AJIL 873

518 ibid 875

519 ibid 873

520 N Bernaz, *Business and Human Rights: History, Law and Policy - Bridging the Accountability Gap* (Human Rights and International Law, Routledge, London 2017) 8

521 ibid

522 Mark Bovens, 'Two Concepts of Accountability: Accountability as a Virtue and as a Mechanism' (2010) 33(2) WEP

523 ibid 948-949

only define accountability based on normative values but also as a mechanism as well.⁵²⁴ The provided definition of accountability is ‘a relationship between an actor and a forum, in which the actor has an obligation to explain and to justify his or her conduct, the forum can pose questions and pass judgement, and the actor may face consequences’.⁵²⁵ Holding another actor accountable can occur through legal and political means.⁵²⁶ Bovens also defines who can be considered actors or the so-called “accountability forum”.

The *actor* can be either an individual, for example an official or civil servant, or an organisation, such as a public institution or an agency. The significant other, the *accountability forum*, can be a specific person, such as a superior, a minister, or a journalist, or it can be an institution, such as parliament, a court, or the audit office.⁵²⁷

To study accountability as a mechanism, Bovens provides three question to ask.⁵²⁸ Firstly, the question should be asked who the accountability forum is. Secondly, the actor who should be accountable has to be identified and, thirdly, the reason for this accountability should be provided.⁵²⁹

According to Bernaz, Bovens provides a framework that can be applied to businesses as well, since the normative approach clarifies what appropriate behaviour is, also with respect to human rights standards and transparency.⁵³⁰ Furthermore, Bovens’ definition provides a mechanism to hold businesses or businesspeople to account. Clarifying accountability can result in change of corporate behaviour.⁵³¹ However, as Bovens points out, accountability as a virtue is normatively based which makes this kind of accountability hard to define because it depends on the perception and agreement on standards for behaviour which can differ between organisations.⁵³² To address accountability as a virtue, Bovens provides the elements of ‘transparency, liability, controllability, responsibility, and responsiveness’.⁵³³ In order to formulate normative questions that include these elements and objectively evaluate the actor’s behaviour, the current study uses Black’s concept of legitimacy.

524 *ibid* 948-954

525 *ibid* 951

526 Julia Black, 'Constructing and Contesting Legitimacy and Accountability in Polycentric Regulatory Regimes' (2008) 2 *RegulGov*

527 Mark Bovens, 'Two Concepts of Accountability: Accountability as a Virtue and as a Mechanism' (2010) 33(2) *WEP* 951

528 *ibid*

529 *ibid* 953

530 N Bernaz, *Business and Human Rights: History, Law and Policy - Bridging the Accountability Gap* (Human Rights and International Law, Routledge, London 2017) 9

531 *ibid*

532 Mark Bovens, 'Two Concepts of Accountability: Accountability as a Virtue and as a Mechanism' (2010) 33(2) *WEP* 950

533 *ibid*

4.1.3 The concept of legitimacy according to Black

Black conceptualises *legitimacy* and *accountability* in her publication '*Constructing and Contesting Legitimacy and Accountability in Polycentric Regulatory Regimes*'.⁵³⁴ According to Black, her developed concepts of legitimacy and accountability are 'in principle applicable to all regulators, state and non-state, or indeed any organizations on which legitimacy and accountability demands are made, or which themselves seek to enhance their legitimacy and accountability'.⁵³⁵ Therefore, the current study applies Black's concept of legitimacy despite the question whether human rights or environmental law systems can be considered as polycentric regulatory regimes or not. Black's concept of accountability is not applied because her definition of accountability relations is similar to Bovens' definition of accountability as a mechanism. Since Bovens emphasises the relevance of accountability as both a mechanism and virtue, using only Black's concept of accountability would be too narrow.⁵³⁶

The perception that an actor or group of actors is legitimate is built on 'social credibility and acceptability' and goes beyond legal validity.⁵³⁷ Black identifies three reasons for social acceptability: legitimacy can be pragmatically, normatively and cognitively based. A person may judge an organisation as legitimate when it meets his or her interests (pragmatic), when the organisation's goals are perceived as morally correct (normative) or when the organisation is perceived to be essential to achieve goals (cognitive). According to Black, the perception on legitimacy depends on the place, context and time and can differ between actors. Four so-called "claims" are described that can be used to determine normative legitimacy.⁵³⁸ Firstly, constitutional claims look into the 'conformance with written norms', such as binding and non-binding law and whether the conformance is consistent or not.⁵³⁹ Secondly, justice claims look into the organisation's goals and values. Thirdly, functional or performance-based legitimacy claims concerns the effects of an organisation, their efficiency or effectiveness and also whether their acts are in accordance with professional or scientific norms. Fourthly, democratic claims refer to whether an organisation fits democratic models. Black describes why legitimacy entails more than the normative and cognitive bases, which are two approaches often used in legal and political science. Pragmatic legitimacy should be included in the analyses as well. Human rights conditions, for instance labour rights, or products that meet the goal of sustainable development, can be consumer demands and interests. These demands provide an incentive for

534 Julia Black, 'Constructing and Contesting Legitimacy and Accountability in Polycentric Regulatory Regimes' (2008) 2 RegulGov

535 ibid 138

536 Mark Bovens, 'Two Concepts of Accountability: Accountability as a Virtue and as a Mechanism' (2010) 33(2) WEP 954

537 Julia Black, 'Constructing and Contesting Legitimacy and Accountability in Polycentric Regulatory Regimes' (2008) 2 RegulGov 144

538 ibid 144-146

539 ibid 146

companies to meet public interests, resulting in the compliance to certain standards set by State or non-State actors. Black states that in such cases legitimacy of these actors is pragmatically based by these companies and normatively based by consumers.⁵⁴⁰

Besides receiving claims on legitimacy, organisations can claim legitimacy themselves as well by 'building legitimacy, maintaining it, and repairing it once lost'.⁵⁴¹ Managing legitimacy can be done by public consultation, publishing reports or agreeing with standards that are perceived legitimate.⁵⁴² Building legitimacy can be done by State-actors such as the EU Member States and developing countries. Non-State actors can also be legitimate, such as standard setting bodies like the UN (including UNGA, UNHCR, FAO and UNEP), WTO (including the Codex), WHO and the EU as a whole and its agencies (including the EFSA and ECHA). Legitimacy is important and can be applied to companies as well because 'legitimacy theory implies, given a growth in community awareness and concern, that firms will take measures to ensure their activities and performance are acceptable to the community'.⁵⁴³

Determining legitimacy is important because it influences behaviour and provides a motivation for compliance.⁵⁴⁴ According to Black, accountability is used to validate legitimacy claims. Bovens also states that accountability results in legitimacy. In regulatory contexts, legitimacy is determined based on the question whether the organisation has suitable 'accountability relationships with others' or not.⁵⁴⁵ Therefore, using legitimacy claims to address the social credibility and acceptability of corporations may provide insight in how corporate behaviour can be changed in order to bridge the corporate accountability gap.

4.2 Approach to determine accountability

In a regulatory context, legitimacy means that an actor has the right to govern.⁵⁴⁶ The current study does not question the State and non-State actor's right to create a regulatory regime. In this sense, the current study assumes that bodies such as the UN, WTO, WHO, ILC, the EU as a whole, European Member States and the European agencies are legitimate. Furthermore, democratic legitimacy is not addressed.

540 ibid 146-147,

541 ibid 146

542 ibid 147

543 Trevor D Wilmshurst and Geoffrey R Frost, 'Corporate Environmental Reporting: a Test of Legitimacy Theory' (2000) 13 *AccountAuditingAccountJ*

544 Julia Black, 'Constructing and Contesting Legitimacy and Accountability in Polycentric Regulatory Regimes' (2008) 2 *RegulGov* 144-147

545 ibid 150

546 ibid 144

The actors in the current study are the EU as a whole, EU Member States, developing countries in general and the transnational corporations Syngenta, Bayer CropScience and BASF. Those actors can also be the accountability forum. The Committee on Economic, Social and Cultural Rights (CESCR) can also be considered an accountability forum. Courts that may have jurisdiction are identified as well. Those courts are: the International Court of Justice (ICJ), the CJEU, the ECtHR or domestic courts.⁵⁴⁷

The current study attempts to identify the accountability of an actor involved in violating human rights due to trade of hazardous pesticides. To do this, the approach to determine accountability as a virtue is based on normative and pragmatic (legitimacy) values because these two provide the possibility to evaluate an organisation.⁵⁴⁸ The approach to determine accountability as a mechanism is based on the three questions provided by Bovens. Seven questions related to the above described concepts are:

- A. What responsibilities can be attributed to the State or REIO?
- B. Is the actor conformant with written norms and is this consistent (based on constitutional legitimacy claims)?
- C. What are the actor's goals and values and are those reflected in the actor's policies (combination of judicial and performance-based legitimacy claims)?
- D. How does the actor manage credibility and social acceptance in dealing with human rights (determined by focussing on transparency and responsiveness)?
- E. Why should the actor be accountable?
- F. Who is/are part of the accountability forum?
- G. Which court may have jurisdiction?
- H. What are the legal consequences?

547 Mark Bovens, 'Two Concepts of Accountability: Accountability as a Virtue and as a Mechanism' (2010) 33(2) WEP 951

548 Julia Black, 'Constructing and Contesting Legitimacy and Accountability in Polycentric Regulatory Regimes' (2008) 2 RegulGov 149

5 The accountability of the EU and its Member States

5.1 Competence to act and joint responsibility

Before diving into answering the questions mentioned in paragraph 4.2, the effects of competence and joint responsibility on the EU as a whole (REIO) and its Member States should be clarified. Attributing responsibilities under international law is not a straight forward matter when the EU and its Member States are concerned. Paragraph 3.1 of the current study briefly touched upon the EU's competence to act. This influences responsibility, especially when human rights and international environmental law are discussed because of the fact that the EU is able to become a Party to the Rotterdam Convention but not to UN's human rights treaties. In some policy areas the EU has exclusive competence.⁵⁴⁹ In such situations, the Member States do not have the authority to act anymore. More often a policy area has shared competence: the Member State has authority to act consistently with EU instruments.⁵⁵⁰ This paragraph further explains the implications of shared competence and joint responsibility on the attribution of responsibilities under the ILC Draft Articles. Nollkaemper defines *joint responsibility*.

If joint responsibility is to have any distinct legal meaning (...), the principle of joint responsibility has to mean that when the EU and one or more Member States commit an internationally wrongful act that results in a single injury, both are responsible for the injury caused, not individually, or for separable parts of the injury, but *jointly*, for the *same*, undivided injury.⁵⁵¹

Nollkaemper links joint responsibility to the 'reparation for injury' and compares the concept to domestic tort law (private law) in which liability claims can be made for the caused damage. In case of non-performance under a multilateral environmental agreement (MEA) with a joint liability clause, Nollkaemper continues:

If the concept of injury is to fulfil its function as a basis for joint responsibility, it has to be a broad one, and not limited to 'damage' as is the case in domestic tort law. It includes, for present purposes, the legal injury that the non-performance of an obligation under an MEA causes to the other parties to that agreement. The consequence of (joint) responsibility then is that the injury has to be removed – full performance of the obligation is thus secured. The concept can extend to material injury, including

549 Israel de Jesus Butler, 'The European Union and International Human Rights Law' <https://europe.ohchr.org/Documents/Publications/EU_and_International_Law.pdf> accessed

550 *ibid* 6

551 A Nollkaemper, 'Joint Responsibility Between the EU and Member States for Non-performance of Obligations Under Multilateral Environmental Agreements' in E Morgera (ed), *The External Environmental Policy of the European Union: EU and International Law Perspectives* (Cambridge University Press, Cambridge 2012) 309-310

damage to property or to the environment that, in terms of reparation, will require restitution or compensation by the jointly responsible actors.⁵⁵²

5.1.1 EU competence to act and joint responsibility in international environmental law

As an REIO, the EU is Party to the Rotterdam Convention and represented by the Commission. All EU Member States are Parties as well and this results in dual representation of States.⁵⁵³ In MEAs, EU Member States share their representation with the Commission according to the internal competence division in the addressed policy areas.⁵⁵⁴ In literature, agreements with dual representation are also referred to as “mixed agreements”. As recorded in Regulation (EU) 649/2012, responsibilities to comply with the Rotterdam Convention are shared between the Commission, Member States and the ECHA. However, in the Rotterdam Convention the EU’s competence seems to be prominent. The Commission declared their competence in this MEA which is in accordance with Article 25 of the Rotterdam Convention.⁵⁵⁵ The EU, represented by the Commission, has the competence to enter into and implement obligations from international agreements when the objectives are ‘preserving, protecting and improving the quality of the environment; protecting human health; prudent and rational utilisation of natural resources; promoting measures at international level to deal with regional or worldwide environmental problems’.⁵⁵⁶ Moreover, it is declared that ‘the [EU] is responsible for the performance of those obligations resulting from the [Rotterdam] Convention which are covered by Community law in force’.⁵⁵⁷ With instruments such as binding regulations covering the provisions from the Rotterdam Convention, the Commission aims at Member State compliance and therefore meeting their responsibility as stipulated in the declaration. Despite declarations like this, attributing responsibility to the EU or to EU Member States can be difficult for States that are not EU Members.⁵⁵⁸ Often these declarations are not sufficient in providing third States with the intended clarity on the internal division on competence which is needed to attribute responsibility.⁵⁵⁹ This is where the concept of joint responsibility comes in, explored in more detail by Nollkaemper.

552 *ibid* 313

553 J Vogler, 'The External Environmental Policy of the European Union' in Stokke and (eds), *Yearbook of International Co-operation on Environment and Development 2003/2004* (Earthscan Publications, London 2003) 67

554 *ibid* 68

555 Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade [2003] OJ L063/29 47

556 *ibid* 47

557 *ibid*

558 A Nollkaemper, 'Joint Responsibility Between the EU and Member States for Non-performance of Obligations Under Multilateral Environmental Agreements' in (ed), *The External Environmental Policy of the European Union: EU and International Law Perspectives* (Cambridge University Press, Cambridge 2012) 305

559 *ibid* 321

In 1994, Advocate General Jacobs argued that the EU and its Member States are ‘jointly liable’ in mixed agreements, which was supported by the Court of Auditors.⁵⁶⁰ This ruling protects the third State’s interests because it should not be their ‘burden’ to have to unravel the competence division in a specific policy area.⁵⁶¹ This indicates that Member States can be held responsible, together with the EU, even when the EU has (almost) exclusive competence. This concept can be used to prevent more Parties to breach obligations. Furthermore, in situations of a breached obligation under an MEA in which dual representation exists, both the EU and Member States can be held responsible, even when the obligation should have been fulfilled by the Member States according to EU law.⁵⁶² Referring to those cases, Nollkaemper comments that ‘the repercussions of such divisions would be a matter of internal EU law’.⁵⁶³ Nollkaemper highlights that the internal division of power may be kept vague on purpose by the EU and Member States because laying out responsibilities can influence power.⁵⁶⁴

Joint responsibility can also arise because the EU is involved in an internationally wrongful act committed by one (or more) of its Member States.⁵⁶⁵ Examples of situations like these are when the EU controls, forces or provides (financial) aid or assistance to Member States’ acts. This can also occur vice versa. Because the EU’s acts can be hard to distinguish from those of its Member States, it can be difficult or impossible to attribute responsibility for a wrongful act. Besides this, MEAs do not always contain a clause on joint responsibility.⁵⁶⁶ This is also true for both the Rotterdam and the Stockholm Convention. Instead, these conventions have set up so-called “non-compliance committees”.⁵⁶⁷ This gives the respective MEAs a more public than private nature.⁵⁶⁸ For this reason, Nollkaemper rather uses the term of joint responsibility instead of joint liability. The first term entails more than only compensation for damages which can be claimed in private law. Following Nollkaemper’s reasoning,

560 Case C-316/91, *Parliament v Council* [1994] Court of Auditors paragraph 23. See also Opinion of Advocate General Jacobs - Case C-316/91 [1993] paragraph 69

561 A Nollkaemper, 'Joint Responsibility Between the EU and Member States for Non-performance of Obligations Under Multilateral Environmental Agreements' in (ed), *The External Environmental Policy of the European Union: EU and International Law Perspectives* (Cambridge University Press, Cambridge 2012) 322

562 *ibid* 322-323, 345

563 *ibid* 323

564 *ibid*

565 *ibid*

566 *ibid* 319, 325-338

567 See 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 (Rotterdam Convention) art 17. See also Stockholm Convention on Persistent Organic Pollutants (POPs) as amended in 2009 (adopted 22 May 2004, entered into force 17 May 2004) 2256 UNTS 119 (Stockholm Convention) art 17.

568 A Nollkaemper, 'Joint Responsibility Between the EU and Member States for Non-performance of Obligations Under Multilateral Environmental Agreements' in (ed), *The External Environmental Policy of the European Union: EU and International Law Perspectives* (Cambridge University Press, Cambridge 2012) 318

claiming joint responsibility for non-performance or the breach of an obligation under either of those two Conventions, has to be based on other grounds. The first ground rests on dual representation. When this would not exist, only individual responsibility can arise. In both the Rotterdam and the Stockholm Convention dual representation does exist. The second and third grounds are based on the attribution of conduct and responsibility. In international law, the attribution of either can be difficult because regulations and directives made at EU level influence the conduct and responsibilities of their Member States. As mentioned earlier, this lack of clarity to third States can result in the claim of joint responsibility.⁵⁶⁹

In practice it is shown that claims are individualised.⁵⁷⁰ One reason for this is the existence of non-compliance committees. Non-compliance of Parties is determined and subsequently competence divisions are made clear by looking into EU-law. When the committee succeeds in clarifying the competence division, a claim for individual responsibility is more appropriate. Furthermore, in *ex post facto* contexts, the EU and their Member States may cooperate in clarifying their competence divisions. Another reason is that, in some cases, the third States' chance of receiving the demanded and full reparation can be ensured by claiming individual responsibility on the Party with the most funds or power. Furthermore, third States may claim individual responsibility on the Party that is most capable of ensuring compliance in the future, so-called "return of legality". Nollkaemper emphasises that claiming individual responsibility is not to be put forward as evidence for the non-existence of joint responsibility. He argues that, even though the use of joint responsibility in non-compliance proceedings is not efficient when the competence division can be clarified, it can serve as a 'last resort when even non-compliance proceedings cannot determine which party has the power to do what'.⁵⁷¹

5.1.2 EU competence to act in human rights treaties and the effect on responsibility

In international environmental law and affairs beyond law, the participation of REIOs is often allowed.⁵⁷² However, the EU cannot become a member of every international organisation because (non-)EU members do not always accept dual representation. In this case, the Member States have the duty to act in consistency with the EU's interests, based on the TEU's provision of loyal cooperation.⁵⁷³ The EU is a full member of organisations that cover policy areas in which it enjoys

569 *ibid* 318-319, 325-338

570 *ibid* 338

571 *ibid* 338-345

572 J Vogler, 'The External Environmental Policy of the European Union' in Stokke and (eds), *Yearbook of International Co-operation on Environment and Development 2003/2004* (Earthscan Publications, London 2003) 67

573 M Buck, 'The EU's Representation in Multilateral Environmental Negotiations After Lisbon' in E Morgera (ed), *The External Environmental Policy of the European Union: EU and International Law Perspectives* (Cambridge University Press, Cambridge 2012) 81

exclusive competence, such as the WTO and FAO.⁵⁷⁴ The EU is also a full member of the Codex.⁵⁷⁵ Importantly, the EU is not a full member, but has observer status, in the UN while EU Member States are full members.⁵⁷⁶ In the World Bank and the UN Environmental Programme, the EU is an observer as well.⁵⁷⁷ In Resolution 65/276, the UNGA expressed the need and benefits for the UN to cooperate with REIOs.⁵⁷⁸ However, the UNGA has an intergovernmental nature which is limited to UN Member States.⁵⁷⁹ The EU is, for example, allowed to speak for its Member States and to participate in debates, international meetings and conferences of the UNGA.⁵⁸⁰ Furthermore, the EU does not have voting rights.⁵⁸¹ The Resolution made the EU an observer with 'enhanced status'.⁵⁸² For this reason, the EU is not able to sign and ratify UN human rights treaties as an REIO. Until now there has been one exception, the UN Convention on the Rights of Persons with Disabilities does contain a clause that allows signing and ratification by REIOs.⁵⁸³ The EU signed and ratified the Convention.⁵⁸⁴ The accession of the EU to the ECHR is the first 'general international human rights treaty' that would be directly binding to European institutions.⁵⁸⁵ In the *'Draft revised Agreement on the Accession of the European Union to the Convention for the Protection of Human rights and Fundamental Freedoms'*, Article 3.7 provides that the EU and their Member States are jointly responsible for the violation of the ECHR

574 J Vogler, 'The External Environmental Policy of the European Union' in Stokke and (eds), *Yearbook of International Co-operation on Environment and Development 2003/2004* (Earthscan Publications, London 2003) 7

575 B van der Meulen, *EU Food Law Handbook* (European Institute for Food Law Series, Volume 9, Wageningen Academic Publishers, Wageningen 2014) 82

576 J Vogler, 'The External Environmental Policy of the European Union' in Stokke and (eds), *Yearbook of International Co-operation on Environment and Development 2003/2004* (Earthscan Publications, London 2003) 67

577 *ibid* 67

578 UNGA, 'Resolution Adopted by the General Assembly on 3 May 2011 - 65/276 Participation of the European Union in the Work of the United Nations' (2011) UN Doc A/RES/65/276

579 *ibid* 1-2

580 *ibid* Annex paragraph 1(a)-(b)

581 *ibid* Annex paragraph 3

582 European Commission and UNGA, *The European Union at the United Nations- Fact Sheet* (Brussels, Belgium 2018) 1

583 Convention on the Rights of Persons with Disabilities and Optional Protocol (adopted 13 December 2006, entered into force 3 May 2008) 2515 UNTS 3 (CRPD) art 42 and 43. See also note 6 in D Augenstein, 'The Human Rights Dimension of Environmental Protection in EU External Relations After Lisbon' in (ed), *The External Environmental Policy of the European Union: EU and International Law Perspectives* (Cambridge University Press, Cambridge 2012) 246.

584 'EU ratifies UN Convention on Disability Rights' (Press Release) <http://europa.eu/rapid/press-release_IP-11-4_en.htm> accessed 20 February 2019

585 D Augenstein, 'The Human Rights Dimension of Environmental Protection in EU External Relations After Lisbon' in (ed), *The External Environmental Policy of the European Union: EU and International Law Perspectives* (Cambridge University Press, Cambridge 2012) 264

unless the ECtHR rules otherwise.⁵⁸⁶ This provides the EU with the opportunity to be a 'co-respondent' in Court cases against one or more of its Member States and where EU-law is questioned.⁵⁸⁷

5.2 Attributing responsibilities to the EU and its Member States

5.2.1 Meeting responsibilities under the Rotterdam and Stockholm Conventions and Regulation (EU) 649/2012

Responsibilities set out in MEAs such as the Stockholm and Rotterdam Conventions are aimed at upholding and ensuring 'rule-conforming conduct'.⁵⁸⁸ The concept of joint responsibility, together with the Commission's declaration on competences, indicates that meeting the obligations that arise from the Rotterdam Convention is the Commission's first responsibility but both the EU as an REIO and one or more EU Member States can be held responsible for any claim of non-performance under the Rotterdam Convention by third Parties.⁵⁸⁹ With respect to the Stockholm Convention, the EU and its Member States share competence but a provision on joint responsibility is not provided in Regulation (EC) 850/2004. Furthermore, the sharing of competence only seems to apply to the creation of implementation plans, suggesting the EU has almost exclusive competence in this Convention because a further division of responsibilities is not defined.⁵⁹⁰ The text of the Community's declaration on competences in participating in the Stockholm Convention is identical to the declaration for the Rotterdam Convention, which also suggests the prominent competence of the EU.⁵⁹¹ Thus, the Commission, representing the EU, is responsible for making sure that the obligations under the Stockholm Convention are met and that Member States comply.

As described in chapter 3, the Rotterdam Convention promotes shared responsibility and cooperative efforts among Parties in the international trade of certain hazardous chemicals in order to protect human health and the environment from potential harm and to contribute to the sound use of these chemicals. According to Article 1 of the Rotterdam Convention, this objective is met when the Party facilitates the exchange of information on the characteristics of the chemicals, establishes national

586 European Council and Council of Europe, 'Draft revised agreement on the accession of the European Union' 47+1(2013)008rev2 art 3.7. See also paragraph 67.

587 *ibid* art 3.2

588 A Nollkaemper, 'Joint Responsibility Between the EU and Member States for Non-performance of Obligations Under Multilateral Environmental Agreements' in (ed), *The External Environmental Policy of the European Union: EU and International Law Perspectives* (Cambridge University Press, Cambridge 2012) 319

589 The reasoning that the EU, or one or more EU Member States, or both can be held accountable is based on *ibid* 306, 312-313

590 Regulation (EC) No 850/2004 of the European Parliament and of The Council on persistent organic pollutants and amending Directive 79/117/EEC [2004] OJ L158/7 L158 paragraph 17

591 Stockholm Convention on Persistent Organic Pollutants [31 July 2006] OJ L209/29 29

decision-making processes for their import and export and communicates the final regulatory action to the Secretariat of the Rotterdam Convention.

The obligation to facilitate the exchange of information on the chemical's characteristics can be considered as met for the EU because of the ECHA's public database. With respect to facilitating communication, according to Regulation (EU) No 649/2012, the Commission is responsible for communicating the final regulatory action and the EU, the ECHA communicates export decisions and Member States are responsible to communicate their final regulatory action to the Commission. The responsibility division for communication is well-defined and an act of non-compliance can thus result in clear attribution of responsibility. Furthermore, the establishment of national decision-processes, Regulation (EU) No 649/2012 provides an harmonised decision-making process for the import of chemicals for their Member States. Furthermore, the ECHA provides assistance for the implementation of the Rotterdam convention. Thus, the EU has a decision-making process in place, laid out in binding rules for its Member States. Therefore, when Member States comply with the Regulation, they meet this obligation as well.

Non-compliant acts under the Rotterdam Convention can be to not provide technical assistance to developing countries. The European Commission states that 'the EU and the Member States provide financial and technical assistance (capacity building) through numerous bilateral and multilateral programmes which contribute to the safe handling and disposal of pesticides (including obsolete stocks of pesticides), such as the Cotonou Agreement with African, Caribbean and Pacific States'.⁵⁹² Therefore, it can be stated that the EU and their Member States are compliant.

Non-compliance under the Stockholm Convention is easier to determine because the trade of the pesticides listed in the Convention is prohibited and, therefore, attributing responsibility is easier. The HHPs Atrazine, Anilofos, Phorate and Paraquat are not listed in the Stockholm Convention and therefore not phased out.⁵⁹³ With respect to these pesticides, the EU and its Member States do not violate the Stockholm Convention.

Taking both MEAs into account, the EU is responsible via the development of legal instruments to ensure Member State compliance. With respect to the Rotterdam Convention, the EU stimulates transparency via consultations with experts and their Member States⁵⁹⁴ and obligating the Member

592 European Commission, *EU Policy for a Sustainable Use of Pesticides - The Story Behind the Strategy* (OOPEC, Luxembourg 2007) 22

593 Secretariat of the Stockholm Convention, 'Implementation Pesticide POPs - Overview' (2016) <<http://www.pops.int/Implementation/PesticidePOPs/tabid/5359/Default.aspx>> accessed 16 February 2019

594 Regulation (EU) No 649/2012 of the European Parliament and of The Council concerning the export and import of hazardous chemicals [2014] OJ L 201/61 649/2012 art 5.2

States to report their operations to the Commission⁵⁹⁵. Regarding the Stockholm Convention, the EU stimulates ‘transparency, impartiality and consistency’ in the way Member States enforce infringements of the Regulation (EC) No 850/2004 and the penalties for infringements.⁵⁹⁶ Information on this should be made publicly available.⁵⁹⁷

In situations of compliance to the Rotterdam Convention, the problem of trade of hazardous pesticides is not prevented or solved because the Rotterdam Convention does not prohibit this trade. Neither is the trade prohibited when the pesticide is banned or restricted for use within the EU. Rather, the Rotterdam Convention provides a legal framework that still allows this trade. Therefore, the question remains whether the Rotterdam Convention’s aim to protect human health and the environment from potential harm due to hazardous chemicals is sufficiently met. In the current study, compliance to the obligations that arise from the two MEAs is not further studied because it does not contribute much to the question whether the EU should be held accountable for transboundary trade of hazardous pesticides. Overall, it can be stated that the EU and its Member States seem to comply with the Rotterdam Convention and the Stockholm Convention.

5.2.2 State responsibility in injurious consequences of acts not prohibited by international environmental law

Contributing more to the discussion on accountability is the question whether the EU or its Member States have international responsibilities for ‘injurious consequences of acts not prohibited by international law’.⁵⁹⁸

The ILC adopted ‘*Draft Articles on Prevention of Transboundary Harm from Hazardous Activities*’ in 2001. These articles aim specifically at the prevention of transboundary harm, which is considered to be a duty of due diligence, meaning taking all reasonable and appropriate steps to identify, prevent or mitigate possible adverse impacts.⁵⁹⁹ The focus of these articles is on States and not on REIOs because the articles focussing on responsibilities of the latter were adopted ten years later. For the current

595 ibid art 22

596 Regulation (EC) No 850/2004 of the European Parliament and of The Council on persistent organic pollutants and amending Directive 79/117/EEC [2004] OJ L158/7 L158

597 ibid

598 M Fitzmaurice, ‘International Responsibility and Liability’ in Bodansky, Brunnée and (eds), *The Oxford Handbook of International Environmental Law* (Oxford University Press, Oxford 2008)

599 UNGA, ‘Report of the International Law Commission on the Work of its Fifty-third Session’ (2001) UN Doc A/56/10 148, *General Commentary* paragraph 1-2. See also M Fitzmaurice, ‘International Responsibility and Liability’ in Bodansky, Brunnée and (eds), *The Oxford Handbook of International Environmental Law* (Oxford University Press, Oxford 2008) 4. See also European Commission Communication to the European Parliament, The Council, the European Economic and Social Committee and the Committee of the Regions - A Renewed EU Strategy 2011-14 for Corporate Social Responsibility [2011] COM(2011) 681 final 6

study, the assumption is made that, after 2011, REIOs can be held responsible for transboundary harm as well. Article 1 stipulates that the draft articles are applicable to acts that are not prohibited by international law but ‘involve a risk of causing significant transboundary harm through their physical consequences’.⁶⁰⁰ Harm is defined as ‘harm caused to persons, property or environment’.⁶⁰¹ States are obligated to ‘repair, remedy or compensate’, also addressed in the ILC Draft Articles. Because of the difficulty to realise a full reparation of environmental damage, the ILC emphasises the State’s duty to prevent transboundary harm and the need for traceability in the ‘chain of causation’ which enables operators involved in hazardous activities to prevent harm.⁶⁰² It should be noted that the ILC articles on transboundary harm do not identify when a State breaches the obligation to prevent transboundary harm.⁶⁰³

States are allowed to invoke the responsibilities of the State committing the transboundary harm before the ICJ.⁶⁰⁴ States that are not directly injured can only pursue termination of the violation and assurance that, in the future, such a violation will not occur again.⁶⁰⁵ Two legal cases illustrate how the concept of State responsibility has been used in dispute settlements concerning transboundary harm and international environmental law. Firstly, the *Trail Smelter* case between the US and Canada dealt with the complaint from the US to the Canadian government on fumes caused by the smelter of the ‘Consolidated Mining and Smelting Company of Canada in Trail, British Columbia’.⁶⁰⁶ The fumes resulted in damage in the State of Washington.⁶⁰⁷ The Tribunal concluded the following:

(...) [N]o State has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another or the properties or persons therein, when the case is of serious consequence and the injury is established by clear and convincing evidence.⁶⁰⁸

This ruling has been considered to be the fundament of the ILC’s draft articles on transboundary harm.⁶⁰⁹ Secondly, the *Corfu Channel* case dealt with an explosion in Albanian waters that caused

600 UNGA, 'Report of the International Law Commission on the Work of its Fifty-third Session' (2001) UN Doc A/56/10 146, art 1

601 *ibid* 146, art 2(b)

602 *ibid* 148, *General Commentary* paragraph 2

603 J Ellis, 'Has International Law Outgrown *Trail Smelter*?' in RM Bratspies and R Miller (eds), *Transboundary Harm in International Law Lessons: from the Trail Smelter Arbitration* (Cambridge University Press, Cambridge 2006) 63

604 UNGA, 'Report of the International Law Commission on the Work of its Fifty-third Session' (2001) UN Doc A/56/10 29, art 48.1

605 *ibid* 29, art 28.2(a)

606 *Trail Smelter Arbitration (US v Canada)* [1941] ICJ Rep 3 1907

607 *ibid*

608 *ibid* 1965

609 J Ellis, 'Has International Law Outgrown *Trail Smelter*?' in Bratspies and (eds), *Transboundary Harm in International Law Lessons: from the Trail Smelter Arbitration* (Cambridge University Press, Cambridge 2006) 56

damage and took human lives in the UK.⁶¹⁰ The ICJ ruled that every State has the obligation to not 'allow knowingly its territory to be used for acts contrary to the rights of other States'.⁶¹¹ According to Fitzmaurice, the ICJ meant the UK's right to protect its citizens and property and, therefore, rephrased the ICJ's ruling into 'every State's obligation not to allow knowingly its territory to be used so as to cause harm to the citizens or property of other States'.⁶¹² Ellis interprets the *Corfu Channel* case, the ruling concerns the State's due diligence duty which provides a basis for State liability when it can be demonstrated that the State knew about the occurrence and its consequences but did not take (sufficient) appropriate steps to prevent or minimise the damage.⁶¹³ Regarding the obligation of due diligence, the ILC provides that

[t]o say that States must take the necessary measures does not mean that they must themselves get involved in operational issues relating to the activities to which Article 1 applies. Where these activities are conducted by private persons or enterprises, the obligation of the State is limited to establishing the appropriate regulatory framework and applying it in accordance with these articles.⁶¹⁴

According to Ellis, litigation of international environmental damage is rare and States have created their own domestic legislation to deal with liability.⁶¹⁵ In creating liability regimes under MEAs, the focus has shifted from State liability to civil liability.⁶¹⁶ The reason for this is that environmental damages are often caused by private actors.⁶¹⁷ This led to the incorporation of the so-called "Polluter Pays Principle" in several MEAs.⁶¹⁸ The EU adopted this principle in the Single European Act in 1987.⁶¹⁹ It is also stipulated in the UNCED's Principle 16⁶²⁰ and recognised in the Stockholm Convention⁶²¹. With

610 *Corfu Channel Case (UK v Albania) (Merits)* [1949] ICJ Rep 4 5

611 *ibid* 22

612 M Fitzmaurice, 'The Corfu Channel Case and the Development of International Law' in N Ando and others, *Liber Amicorum Judge Shigeru Oda* (Kluwer Law International, 2002) 137

613 J Ellis, 'Has International Law Outgrown *Trail Smelter*?' in Bratspies and (eds), *Transboundary Harm in International Law Lessons: from the Trail Smelter Arbitration* (Cambridge University Press, Cambridge 2006) 61

614 UNGA, 'Report of the International Law Commission on the Work of its Fifty-third Session' (2001) UN Doc A/56/10 Commentary 3 on Article 5, 156

615 J Ellis, 'Has International Law Outgrown *Trail Smelter*?' in Bratspies and (eds), *Transboundary Harm in International Law Lessons: from the Trail Smelter Arbitration* (Cambridge University Press, Cambridge 2006) 56

616 M Fitzmaurice, 'International Responsibility and Liability' in Bodansky, Brunnée and (eds), *The Oxford Handbook of International Environmental Law* (Oxford University Press, Oxford 2008) 3

617 *ibid* 2

618 *ibid*

619 Barbara Luppi, Francesco Parisi and Shruti Rajagopalan, 'The Rise and Fall of the Polluter-pays Principle in Developing Countries' (2012) 32 IRLE 136

620 UN DESA, 'United Nations Conference on Environment and Development (UNCED), Earth Summit' <<https://sustainabledevelopment.un.org/milestones/unced>> accessed 5 November 2018 principle 16

621 Stockholm Convention on Persistent Organic Pollutants (POPs) as amended in 2009 (adopted 22 May 2004, entered into force 17 May 2004) 2256 UNTS 119 (Stockholm Convention) 5

this principle, States can hold polluting companies liable for environmental harm.⁶²² This liability can, however, only occur when the State implements the Polluter Pays Principle into domestic law.⁶²³ The State's responsibility to not cause transboundary harm is also included in the UNCED's principle 2. Furthermore, the UNCED recognised the need for States to develop national laws on liability and compensation for 'victims of pollution and other environmental damage' caused by transboundary harm.⁶²⁴

According to the ILC's definition of harm, hazardous pesticides that cause adverse effects on an individual's health or the environment could be considered a harm. This statement can be supported by the Rotterdam Convention's objective in which hazardous chemicals are identified as a potential harm. Still, the question remains whether this harm is significant enough to be regarded as a transboundary harm according to the ILC. As argued by Handl, 'certain types of transboundary effects involving, for example, radioactive, toxic, or otherwise highly dangerous substances or those otherwise affecting public health, endangering lives, or producing serious irreversible conditions, are likely to be *a priori* deemed significantly harm-ful'.⁶²⁵ Therefore, the current study considers (highly) hazardous pesticides a significant harm with a risk of causing transboundary harm. However, the act of trade itself might not be recognised as a transboundary harm directly and neither the selling of hazardous pesticides through foreign investment. This, because the hazardous pesticides result in adverse effects in the territory of the State in which they are applied. To clarify this argument and taking into account the *Trail Smelter* ruling, the pesticide fumes that result from the application are not formed within the territory of the EU and do not subsequently end up in developing countries where the damage occurs. Nonetheless, regarding the 'chain of causation', the selling of hazardous pesticides by transnational agrochemical corporations with their headquarters in the EU does contribute to harm in other States besides the EU Member States. Therefore, it can be argued that the EU and its Member States have a due diligence duty to prevent this harm. This obligation can be met by creating regulatory frameworks, such as the Polluter Pays Principle. Because of the EU's competence in MEAs, joint responsibility again plays a role in this context. Thus, it can be reasoned that States and REIOs do have responsibilities in

622 Barbara Luppi, Francesco Parisi and Shruti Rajagopalan, 'The Rise and Fall of the Polluter-pays Principle in Developing Countries' (2012) 32 IRLE 136

623 N Bernaz, *Business and Human Rights: History, Law and Policy - Bridging the Accountability Gap* (Human Rights and International Law, Routledge, London 2017) 97

624 UN DESA, 'United Nations Conference on Environment and Development (UNCED), Earth Summit' <<https://sustainabledevelopment.un.org/milestones/unced>> accessed 5 November 2018 principle 13

625 G Handl, 'Transboundary Impacts' in D Bodansky, J Brunnée and E Hey (eds), *The Oxford Handbook of International Environmental Law* (Oxford University Press, Oxford 2007) 535

preventing transboundary harm due to activities within their territory or their jurisdiction or control even when these responsibilities do not arise from legally binding MEAs.⁶²⁶

5.2.3 Extraterritorial human rights obligations for States

The current legal-framework of international human rights does not obligate States to regulate the extraterritorial conduct of companies that are registered within the territories under their jurisdiction, but neither does it prohibit States to do this.⁶²⁷ However, it can be argued that a State has extraterritorial obligations to protect human rights depending on the presence of a so-called “jurisdiction clause” in human rights treaties.⁶²⁸ When such a clause is present, the State is bound to protect only the human rights of those individuals within the territories of its jurisdiction. Absence of a jurisdiction clause gives rise to the idea that the State’s obligations are not limited to their territories. The ICCPR does and the ICESCR does not have a jurisdiction clause.⁶²⁹ Besides this, the Guiding Principles also address extraterritorial acts, described in subparagraph 3.2.5. The Guiding Principles provide the thought that States have the due diligence duty to prevent and punish human rights violations, also extraterritorially. The CESCR adopts this idea of extraterritoriality in their interpretation of the right to health and the right to food.

The general obligation put on States Parties of the ICESCR, addressed in subparagraph 3.2.1, provides an extraterritorial dimension because it expresses the need for international assistance and co-operation to fully realise the Covenant’s rights.⁶³⁰ In General Comment No. 14, the CESCR recognises that ‘States parties have to respect the enjoyment of the right to health in other countries, and to prevent third parties from violating the right in other countries, if they are able to influence these third parties by way of legal or political means, in accordance with the Charter of the United Nations and applicable international law’.⁶³¹ Corporations that are registered within the territories under the

626 UNGA, 'Report of the International Law Commission on the Work of its Fifty-third Session' (2001) UN Doc A/56/10 Commentary 11 on Article 2, 153

627 OHCHR, 'Guiding Principles on Business and Human Rights: Implementing the United Nations 'Protect, Respect and Remedy' Framework' (2011) UN Doc A/HRC/17/31 Commentary on Principle 2, page 3-4. See also UNCHR, 'Report of the Special Representative of the Secretary-General on the Issue of Human Rights and Transnational Corporations and Other Business Enterprises, John Ruggie: Protect, Respect and Remedy: A Framework for Business and Human Rights' (2008) UN Doc A/HRC/8/5 paragraph 19

628 N Bernaz, 'State Obligations with Regard to the Extraterritorial Activities of Companies Domiciled on their Territories' in Buckley, Donald and (eds), *Towards Convergence in International Human Rights Law: Approaches of Regional and International Systems* (Koninklijke Brill NV, Leiden 2017) 438-439

629 See for the jurisdiction clause International Covenant on Civil and Political Rights (adopted 16 December 1966, entered into force 23 March 1976) 999 UNTS 171 (ICCPR) art 2.1

630 N Bernaz, 'State Obligations with Regard to the Extraterritorial Activities of Companies Domiciled on their Territories' in Buckley, Donald and (eds), *Towards Convergence in International Human Rights Law: Approaches of Regional and International Systems* (Koninklijke Brill NV, Leiden 2017) 438-439

631 OHCHR, 'CESCR General Comment No.14: The Right to the Highest Attainable Standard of Health (Art.12)' (2000) UN Doc E/C.12/2000/4 paragraph 39

State's jurisdiction are considered third parties.⁶³² Thus, besides the obligation to ensure access to health for everyone within the State's jurisdiction, the right to health has an extraterritorial aspect. Regarding the right to food, the OHCHR urges States to refrain from actions that affect the right to food in other countries.⁶³³ Furthermore, General Comment No. 12 provides that 'States parties should take steps to respect the enjoyment of the right to food in other countries, to protect that right, to facilitate access to food and to provide the necessary aid when required'.⁶³⁴ Therefore, even though States are obligated to protect the right to food within their areas of jurisdiction, there is, again, an extraterritorial aspect.⁶³⁵

Thus, even though States are not bound to regulate extraterritorial conduct of corporations, adopting the idea of the extraterritorial due diligence obligation for States to prevent and punish is encouraged in order to protect the right to health and the right to food abroad.

5.2.4 Attributing acts of transnational agrochemical corporations to State responsibility under the ILC Draft Articles

As the ILC Draft Articles provides, State responsibility can arise because of a failure to meet the due diligence obligation or when the conduct can be attributed to the State. Subparagraphs 5.2.2 and 5.3.2 show that the obligation of due diligence indicates an important role for States to prevent and punish human rights violations and transboundary harm. However, both are caused by private actors. The ILC Draft Articles are clear on when the conduct of a company can be attributed to the State, but remains unclear on when due diligence can be expected and should be applied.⁶³⁶ This subparagraph seeks to identify, firstly, whether or not the conduct of agrochemical companies can be attributed to a State and, secondly, whether the State's due diligence obligation can be expected and should be applied in order to prevent the transboundary harm and extraterritorial human rights violations caused by these companies. To address these questions, McCorquodale's and Simons' article on '*Responsibility Beyond Borders: State Responsibility for Extraterritorial Violations by Corporations of International Human Rights*' is used.⁶³⁷

632 N Bernaz, 'State Obligations with Regard to the Extraterritorial Activities of Companies Domiciled on their Territories' in Buckley, Donald and (eds), *Towards Convergence in International Human Rights Law: Approaches of Regional and International Systems* (Koninklijke Brill NV, Leiden 2017) 444

633 OHCHR and FAO, *Fact Sheet No. 34, The Right to Adequate Food* (UN, Geneva 2010)

634 OHCHR, 'CESCR General Comment No.12: The Right to Adequate Food (Art.11)' (1999) UN Doc E/C.12/1999/5 paragraph 36

635 OHCHR and FAO, *Fact Sheet No. 34, The Right to Adequate Food* (UN, Geneva 2010) 23

636 N Bernaz, 'State Obligations with Regard to the Extraterritorial Activities of Companies Domiciled on their Territories' in Buckley, Donald and (eds), *Towards Convergence in International Human Rights Law: Approaches of Regional and International Systems* (Koninklijke Brill NV, Leiden 2017) 440

637 Robert McCorquodale and Penelope Simons, 'Responsibility Beyond Borders: State Responsibility for Extraterritorial Violations by Corporations of International Human Rights Law' (2007) 70 *ModLawRev*

When an act or omission of a corporation results in an internationally wrongful act and it can be attributed to the State, it can be held responsible under the ILC Draft Articles.⁶³⁸ Attributing corporate conduct to State responsibility according to the ILC Draft Articles is possible when a corporation can be considered a State-actor. Corporations that are State-actors exercise public authority on behalf of the State (governmental authority) or acts under the State's 'instructions, directions or control'.⁶³⁹ Concerning acts of governmental authority, McCorquodale and Simons state that 'for there to be attribution to the state, the conduct by the corporation must relate to 'governmental activity and not other private or commercial activity'.⁶⁴⁰ Providing social services is considered to belong to governmental authority. By providing social services, the State's obligation to fulfil human rights can be met. Agrochemical companies may affect social human rights, but do not directly provide social services. Based on this argument, extraterritorial actions of agrochemical companies cannot result in State responsibility under the ILC Draft Articles. Furthermore, concerning the requirement of acting under the State's instructions, directions or control, this is only applicable to persons or entities that are employed to act on behalf of the State or State organs.⁶⁴¹ Again, this does not hold for agrochemical companies. Therefore, agrochemical companies are considered non-State actors which implies that State responsibility cannot be claimed under the ILC Draft Articles. Regarding REIO responsibility, the same requirements apply.

As mentioned in subparagraph 5.1.1, the EU can contribute to harm by providing support or assistance to Member States. McCorquodale and Simons provide that this is also true for States or REIOs that support or assist transnational companies that violate human rights.⁶⁴² Concerning the State's provision of aid and assistance to transnational corporations, regardless of being a State-actor or not, a State's failure to exercise due diligence to prevent extraterritorial human rights violations by these corporations can be considered as contribution to harm under the ILC Draft Articles. The ruling in the *Corfu Channel* case is applicable here as well. When it is shown that the State knew that its aid or assistance contributed to the internationally wrongful act, it can be held responsible. The question is, however, whether agrochemical companies are aided by the EU or European Member States. Providing the required facility or finances can be considered aid or assistance. In the EU, exports can be facilitated through Export Credit Agencies (ECAs) which are bound by European legislation. These ECAs are

638 UNGA, 'Report of the International Law Commission on the Work of its Fifty-third Session' (2001) UN Doc A/56/10 47, *Commentary* (1)

639 Robert McCorquodale and Penelope Simons, 'Responsibility Beyond Borders: State Responsibility for Extraterritorial Violations by Corporations of International Human Rights Law' (2007) 70 *ModLawRev* 606

640 *ibid* 606

641 UNGA, 'Report of the International Law Commission on the Work of its Fifty-third Session' (2001) UN Doc A/56/10 47, *Commentary* (2)

642 Robert McCorquodale and Penelope Simons, 'Responsibility Beyond Borders: State Responsibility for Extraterritorial Violations by Corporations of International Human Rights Law' (2007) 70 *ModLawRev* 598

obligated to 'support and develop, directly and indirectly, trade and extraterritorial investment opportunities for corporate nationals'.⁶⁴³ When a corporation is aided or assisted by ECAs and subsequently commits an internationally wrongful act, this can result in responsibility for the EU under the ILC Draft Articles. When ECAs provide aid or assistance, McCorquodale and Simons argue that it can be assumed that the State knew about this.⁶⁴⁴ Moreover, the statement is made that 'it cannot be reasonably be argued today that states do not know that their corporate nationals (or the latter's foreign subsidiaries) may engage in human rights violating activity in their extraterritorial operations'.⁶⁴⁵ Extraterritorial conduct of agrochemical companies should be regulated in the home State.⁶⁴⁶ This is part of the home State's due diligence obligation to foresee and prevent human rights violations in developing countries caused by the companies' conduct or legislative powers.⁶⁴⁷ According to Davitti, home States are able to foresee the effects based on 'what the authorities knew or ought to have known'.⁶⁴⁸

When taking into account subsidiaries, the home State, where the headquarters reside, can 'have an extraterritorial obligation to protect human rights, to the extent that it should exercise due diligence in relation to the acts of such foreign subsidiaries'.⁶⁴⁹ The ruling of the *Trail Smelter* case applies for business and human rights as well: the home State should not permit any actions or decisions taken by headquarters on their territory that result in injury of individuals in other States.⁶⁵⁰ McCorquodale and Simons argue that the reasoning has to be reviewed that subsidiaries and the parent companies are subjected to the law of the States in which they are based.⁶⁵¹ They state that courts focus more on the whole company in order to put parent companies under the jurisdiction of a State.⁶⁵² The home State is obligated to require 'the parent to impose on such subsidiaries [wholly owned or controlled foreign subsidiaries] a particular course of action or to include particular terms in any contract'.⁶⁵³ This is applied in several areas of law, for instance in competition law. In some States, national courts have

643 *ibid* 608

644 *ibid* 611-612

645 *ibid* 619

646 Daria Davitti, 'Refining the Protect, Respect and Remedy Framework for Business and Human Rights and its Guiding Principles' (2016) 16 HRLRev 65

647 *ibid* 65-66

648 *ibid* 66

649 Robert McCorquodale and Penelope Simons, 'Responsibility Beyond Borders: State Responsibility for Extraterritorial Violations by Corporations of International Human Rights Law' (2007) 70 ModLawRev 615

650 N Bernaz, 'State Obligations with Regard to the Extraterritorial Activities of Companies Domiciled on their Territories' in Buckley, Donald and (eds), *Towards Convergence in International Human Rights Law: Approaches of Regional and International Systems* (Koninklijke Brill NV, Leiden 2017) 441

651 Robert McCorquodale and Penelope Simons, 'Responsibility Beyond Borders: State Responsibility for Extraterritorial Violations by Corporations of International Human Rights Law' (2007) 70 ModLawRev 615

652 *ibid* 615-616

653 *ibid* 616

imposed liability on parent companies in home States for the violations of international law by subsidiaries in host States.⁶⁵⁴

The case law of the *Fadeyeva v Russia* case provides an illustration on how corporate conduct can result in State responsibility before the ECtHR.⁶⁵⁵ This case does not concern extraterritorial human rights violations. Shortly, Nikolay Fadeyev's flat stood in the buffer zone of a steel-producing company in Russia which was owned by a privatised Russian company. The company did not live up to its legal obligation to transfer the zone's inhabitants. Furthermore, the production of steel resulted in toxic chemical levels in the town's air that were too high and resulted in health problems for the town's inhabitants. The ECtHR ruled that the company could not be considered a State-actor and, therefore, the company did not interfere with the right to private and family life. However, the State knew about the environmental situation. That is why the ECtHR ruled that the State had failed to protect the right to private and family life and, thus, breached the obligation of due diligence.⁶⁵⁶ Subsequently, the State was held responsible and liable.⁶⁵⁷ This case shows the corporate accountability gap and that State responsibility can be used to provide victims with remedies for human rights violations.

In sum, under the ILC Draft Articles, transboundary harm and extraterritorial human rights violations of agrochemical companies and their subsidiaries can only result in home State responsibility based on the State's failure to meet its due diligence obligation. Thus, home States have to avoid that they have to fully repair an internationally wrongful act caused by agrochemical companies' conduct by controlling the companies' operations and policies and establishing a regulatory framework.

5.3 Meeting goals and values and managing credibility

5.3.1 Coherence in the EU's internal and external policies

The EU's founding principles laid out in the TEU include respect for human rights and these values have to be taken into account when legislation and policies, both internal and external, are made. Consistency between external and internal policies is one of the objectives laid out in the EU. According to the EPRS, 'to strengthen its external credibility, the EU has to ensure its internal and human rights policies are consistent'.⁶⁵⁸ The European Parliament states that 'the EU's legal framework is consistent with international human rights law' for the EU is obligated by its treaties to respect international law.⁶⁵⁹ The EU manages this credibility using several methods. For example, public statements are

654 *ibid* 616

655 *Fadeyeva v Russia* (2005) 45 EHRR 10

656 *ibid* paragraph 10-19, 89-90

657 *ibid* 35, paragraph 2

658 EPRS, *Briefing EU Policies Delivering for Citizens: Human Rights* (European Parliament, Brussels 2018) 8

659 *ibid* 5

made in which the EU promotes the respect for human rights and encourages the authorities in developing countries to ratify certain international convention and strengthen their legal frameworks to ensure compliance with human rights obligations. In addition, the EU creates soft law instruments for Member States and conducts dialogues with international organisations and partner countries to address concerns on human rights.⁶⁶⁰ Thus, the EU shows responsiveness and transparency through public statements, publicly available documents and soft law instruments.

EU legislation and international human rights law is claimed to be consistent by the European Parliament. The objectives of the Regulations mentioned in chapter 3 reflect the TEU values, such as environmental protection and sustainable development.⁶⁶¹ The Regulations also reflect principles in human rights like protecting health. Furthermore, Regulation 649/2012 contributes to the realisation of the Rotterdam Convention's objectives which, upon signing and ratification, became objectives for the EU as well. The objective to promote good governance is met by the EU's capacity building programmes.

The EU's objective to support and promote human rights in developing countries is reflected in the EU's Multiannual Financial Framework of 2014-2020. The EU provides financial support, €1.33 billion, to the implementing programmes of civil society organisations that promote and uphold human rights both locally and globally.⁶⁶² Furthermore, €19.66 billion is spend on funding aid to developing countries, aimed at 'human rights, democracy and good governance'.⁶⁶³ Another €30.5 billion goes to the European Development Fund (EDF). Member States can contribute voluntarily to this fund. The EDF provides support in improving legal reforms and institutional capacity building, especially in 'African, Caribbean and Pacific countries'.⁶⁶⁴

Even though the above-mentioned objectives seem to be met, the coherence between the internal and external policies remain a topic of debate. Regulation 1107/2009 on the placing of PPPs on the market aims at a high standard of human and animal health and environment protection. The EU has the strict formulation that no PPP is allowed to be placed on the internal market that negatively affects human and animal health or the environment. As mentioned earlier in chapter 2, Anilophos, Atrazine, Paraquat and Phorate are not approved to be put on the internal market but are exported by transnational agrochemical companies. Paraquat and Phorate are subjected to Regulation 649/2012 and a Council Decision for the Commission states that the Union should support the listing of these

660 ibid 8-9

661 Consolidated version of the Treaty on the European Union (TEU) [signed 7 February 1992, entered into force 1 January 1993] OJ C326 preamble

662 EPRS, *Briefing EU Policies Delivering for Citizens: Human Rights* (European Parliament, Brussels 2018) 5

663 ibid 6

664 ibid

two pesticides in Annex III for the PIC procedure.⁶⁶⁵ However, listing those pesticides does not directly prevent their export. According to Regulation 1107/2009, the persistency of chemicals is a reason not to classify an active substance as a low-risk. Paraquat, Atrazine and Phorate are persistent. Moreover, the three HHPs and Anilofos are harmful for human health or the environment and, therefore, not allowed to be placed on the internal market. Besides this, as shown earlier, one can assume that the EU is aware of the export of those pesticides. This is highlighted by the European Parliament admitting the export of Atrazine to developing countries. Because of this double standard, the conclusion can be drawn that the EU's policies concerning the trade of hazardous pesticides in the internal and external market are not consistent. With respect to the rights of the child, the CFR provides the EU's expectation that both public authorities and private institutions 'the child's best interests must be a primary consideration'.⁶⁶⁶ This should provide the EU with another incentive to ensure consistency in all their policies.

By signing the Rotterdam Convention, the EU and its Member States accept the UNCED's principles and, thus, also principle 2. This, and the OHCHR's urge directed at States to refrain from actions that affect the right to food in other countries should provide the EU with the incentive to put an end to the trade of hazardous pesticides. Moreover, the OHCHR urges States to help other States enabling the right to food, but as shown in the current study, the trade of hazardous pesticides does not seem to contribute to this. Even though the EU is not a Party to the international human rights treaties, as an observer with enhanced status the EU does state that 'the European way is also the [UN's] way' and that the UN's principles are the Union's principles as well.⁶⁶⁷ This implies that the OHCHR's encouragement has to be supported by the EU in order to maintain credibility. According to the ESPR, 'as multilateralism and its underlying values come under threat, the EU is expected to assume its role as a major geopolitical player and stand firm behind the global system'.⁶⁶⁸ The EU plays an important role in setting and upholding global social and environmental standards. This is also reflected in the Union's contribution and influence on the creation of Agenda 2030 for Sustainable Development which provides new goals that continue on Agenda 21. Agenda 2030 aims to 'substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and

665 European Commission, 'Proposal for a Council Decision on the Position to be taken on behalf of the European Union at the Conference of the Parties as regards amendments of Annex III to the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade' COM(2019) 54 final 2

666 Charter of Fundamental Rights of the European Union [2000] OJ C364/01 art 24.2

667 European Commission and UNGA, *The European Union at the United Nations- Fact Sheet* (Brussels, Belgium 2018) 1

668 EPRS, *Briefing EU Policies Delivering for Citizens: Human Rights* (European Parliament, Brussels 2018) 12

contamination'.⁶⁶⁹ The EU claims 'to play a leading role as we move into the implementation of this ambitious, transformative and universal Agenda that delivers poverty eradication and sustainable development for all'.⁶⁷⁰ The concern on the EU's high ambitions and the coherence between internal and external policies has been addressed by Augenstein as well.

The *problématique* of (extra)territorial human rights obligations sheds new light on the debate concerning the (lack of) coherence between the EU's internal and external human rights regimes. While it is often – and not without reason – noted that human rights protection within the EU does not live up to its ambitions to promote human rights internationally, the opposite arguably holds true in the case of human rights obligations (...). The issue that needs to be addressed is whether it is legitimate for the EU to regulate at home with extraterritorial effect without accepting commensurate human rights responsibilities towards those individuals in third countries affected by these regulations.⁶⁷¹

Augenstein uses the term *coherence* instead of consistency which is used in the TEU. According to Cremona, coherence is a broader concept.⁶⁷² It does not only address comprehensibility and connectivity between policies, but also between policies and activities. Coherence can be horizontal or vertical. Horizontal refers to coherence in EU and its external relations. Vertical coherence refers to the actions of the EU and those of its Member States.⁶⁷³

In summary, the EU seems to meet its values in the TEU with respect to the promotion of human rights development throughout the world by providing financial support to developing countries. By playing a leading role in the creation of universal policies, the EU is able to promote human rights globally. However, when coherence between external and internal policies are taken into account, especially in the trade of hazardous pesticides, the EU does not maintain the same values externally as they do internally. The EU does not seem to meet the UNCED's principle of preventing transboundary harm and the TEU value to uphold human rights. This seriously affects the EU's credibility, even though the EU has many soft law instruments in place to manage this credibility.

669 UN, 'Transforming Our World: The 2030 Agenda for Sustainable Development' (2015) UN Doc A/RES/70/1 art 3.9

670 International Cooperation and Development, 'The 2030 Agenda for Sustainable Development' (European Commission) <https://ec.europa.eu/europeaid/policies/european-development-policy/2030-agenda-sustainable-development_en> accessed 17 February 2019

671 D Augenstein, 'The Human Rights Dimension of Environmental Protection in EU External Relations After Lisbon' in (ed), *The External Environmental Policy of the European Union: EU and International Law Perspectives* (Cambridge University Press, Cambridge 2012) 285-286

672 M Cremona, 'Coherence and EU External Environmental Policy' in E Morgera (ed), *The External Policy of the European Union: EU and International Law Perspectives* (Cambridge University Press, Cambridge 2012)

673 *ibid*

5.3.2 Germany's NAP on Business and Human Rights

The Working Group on the issue of human rights and transnational corporations and other business enterprises stimulates States to adopt NAPs, as mentioned in subparagraph 3.2.4. Germany's NAP to implement the Guiding Principles is discussed as an illustration. This EU Member State was chosen because both BASF and Bayer CropScience have their headquarters in Germany. Germany adopted this NAP on 21 December 2016.⁶⁷⁴

German companies play an important role in social and environmental standard setting.⁶⁷⁵ Because of their increased involvement in the global market, those companies can contribute positively to human rights by improving the country's economy and employment numbers, but also negatively due to insufficient transparency and respect for human rights standards throughout the supply chain. The FFO claims that Germany has numerous national policies and legislation in place focussing on the protection of human rights and binding all German businesses. They do, however, recognise that procedures need to be developed and implemented for the identification and prevention of the risks related to the effects of corporate international conduct on human rights. In the NAP it is mentioned that 'the ultimate obligation to protect human rights continues to lie with States'.⁶⁷⁶ Furthermore, the FFO acknowledges the 'joint responsibility of governments and business to foster sustainable supply chains and encourage best practices'.⁶⁷⁷

German companies have to implement due diligence that suits their size and the sector in which they are involved in order to comply with the Guiding Principle's corporate respect for human rights.⁶⁷⁸ The FFO emphasises the need for this implementation for those companies and their subsidiaries exercising their business in countries where there is a lack, or absence, of enforcement and legal frameworks. Five core elements of due diligence are laid out in the NAP. The first element is the corporation's public policy statement by the senior management in which they state to respect human rights. The statement should include the risk areas for human rights related to the corporation's conduct, procedures through which the company implements due diligence and a division of responsibilities within the corporation. The second element is the identification, mitigation and prevention of negative effects on human rights caused by the corporation's conduct on human rights. Extra attention should be paid, among other things, to local populations and vulnerable groups, customers and other

674 FFO, *National Action Plan - Implementation of the UN Guiding Principles on Business and Human Rights 2016-2020* (FFO, Main 2017)

675 *ibid* 4

676 *ibid*

677 *ibid*

678 *ibid* 7

companies in the supply chain that are at risk for adverse effects. The corporation has to identify risks related to their direct and indirect operations.⁶⁷⁹

The risk of a particularly adverse impact arises, for example, in cases where a large number of people may be affected or the potential impact would have serious, unforeseeable, or irreversible consequences. The indepth review should at least include local dialogue with actually or potentially affected parties and recourse to both internal and external expertise in the field of human rights.⁶⁸⁰

The third element is the incorporation and evaluation of the effectiveness of suitable measures to address the negative effects, such as trainings within the company or remedial measures. The company should focus primarily on initiating the latter and ‘withdrawal from an area of business activity or from a location should only ever be a last resort’.⁶⁸¹ The fourth element is reporting to external recipients. The laid-out actions to this end include information on awareness on the identified risks and the appropriate steps and measures taken by the company to address these risks. The fifth element is the realisation of grievance mechanisms. As of 2018, the company’s compliance to the NAP will be assessed annually and when non-compliance exists, the Federal Government is able to decide whether to take further actions. By 2020, fifty percent of all Germany-based companies with over 500 employees should have incorporated due diligence to respect human rights. Those companies that did not do so have to provide an explanation.⁶⁸² Furthermore, in the NAP it is described that State subsidies to companies are not granted when it conflicts with the State’s duty to protect human rights, but only when the subsidies are ‘necessary and reasonable and do not restrict competition’.⁶⁸³ Overall, transparency is required in all aspects of due diligence, including the company’s communications and supply chains and subsidies provided by the government. Victims of human rights violations caused by German enterprises can bring their case to the German court, also when the violation occurred abroad. Companies that breach criminal law, including human rights violations, can be held liable according to the German Regulatory Offences Act. Fines can be up to € 10 million. With respect to developing countries, Germany aims to contribute to strengthen the rule of law and democracy because this results in a stronger capacity of those countries to deal with human rights violations.⁶⁸⁴

5.3.3 Additional remarks on accountability for the EU as a REIO and its Member States

The current chapter covered the responsibilities for the EU as a REIO concerning hazardous pesticides as a transboundary harm. Directly affected States or third States that are not affected can claim joint

679 *ibid* 7-9, 19

680 *ibid* 9

681 *ibid* 9

682 *ibid* 9-16

683 *ibid* 16

684 *ibid* 24-25

responsibility for the EU and its Member States because of the shared competence in environmental policies. This joint responsibility, or individually assigned responsibility, would be based on the EU's and/or the Member States' failure to exercise the due diligence obligation to prevent transboundary harm caused by their transnational corporations. The court that may have jurisdiction is the ICJ. However, the ICJ only has jurisdiction over the States that provide their consent for this. When the States are bound to an MEA that contains a provision for ICJ jurisdiction, no consent is needed, but the Rotterdam and the Stockholm Conventions do not contain such a provision. Regarding the responsibilities of the EU in international law, an accountability gap exists here as well because the EU is bound by MEAs but is not subjected to the ICJ and cannot give its consent for jurisdiction. In practice, only Member States can be held responsible before the ICJ. The EU can ensure their Member States' compliance with the Rotterdam and Stockholm Convention via EU-legislation. In infringement procedures, the CJEU has jurisdiction.

The EU as a REIO is not legally bound to human rights treaties, such as the ICESCR or the ECHR. Their Member States are bound by these treaties and, additionally, to the CFR. Therefore, the Member States can be held responsible in the ECtHR and the CJEU. However, the extraterritorial human rights obligations discussed in this chapter are not binding and can only contribute to the accountability of the EU or its Member States and not to attributing responsibility. Yet, the ECtHR adopts the ruling of the *Trail Smelter* case.⁶⁸⁵ Under the condition that the agrochemical companies' headquarters export hazardous pesticides or make the decisions for their subsidiaries to produce and sell those chemicals, Member States can be held responsible by the ECtHR for failing to prevent human rights violations abroad. However, only individuals of States Parties to the ECHR can claim their right before the ECtHR. After the EU's complete accession to the ECtHR, individuals are enabled to 'bring complaints against the EU to the [CJEU]' and to the ECtHR.⁶⁸⁶ This court does not have jurisdiction over developing countries.

Legal obligations set standards for behaviour. Therefore, the possibility to attribute responsibility to States or the EU, with the consequence of being held liable, contributes to their accountability because it should influence their behaviour, regardless of the success rate of actually attributing such responsibility. Beyond legal obligations, upholding, maintaining and reflecting goals and values in all EU policies contributes to the EU's credibility which can be managed by transparency and responsiveness. This is true for both environmental and human rights law. The EU's credibility and social acceptance with respect to human rights is affected because of the lack of coherence between the internal and external policies. The EU's high ambitions should not only be communicated, but also

685 *Drozd and Janousek v France and Spain* (1992) 14 EHRR 754 paragraph 91

686 EPRS, *Briefing EU Policies Delivering for Citizens: Human Rights* (European Parliament, Brussels 2018) 3

be met. Additionally, the extraterritorial aspect of the human right to food and the right to health set standards for State behaviour, a notion that should be adopted by the EU as well because of its claimed commitment to UN standards. With respect to human rights law, it should be taken into account that the use of terms like “support” and “promotion” give room for flexible interpretation. The EU has several programs and mechanisms in place that either promote or support human rights in their policies, Member States or developing countries. However, their promotion and support did not prevent the transboundary harm or extraterritorial human rights violations. To improve the EU’s transparency in policy areas of shared competence, the EU should clarify responsibilities and make the division of powers clear to enable third States to attribute responsibilities.

Because it can be assumed that the EU has knowledge about the human rights violations caused by their agrochemical companies’ conduct, the EU should react. One could expect the EU to make sure that Member States and corporations refrain from the export of hazardous pesticides or from harm caused by subsidiaries. Especially since children are at an increased risk to get exposed to those pesticides and subsequently their rights are affected. Another incentive for the EU to act should be the environmental pollution that occurs due to the hazardous pesticides. This can be done by creating a legal framework to control and monitor the corporation’s acts and by taking other measures to increase the corporate accountability.

To summarise, when the EU’s due diligence obligation to prevent transboundary harm and the due diligence obligation to prevent and punish extraterritorial human rights violations are considered, it can be stated that the EU does not take all necessary and appropriate steps to prevent transboundary harm caused by EU-based agrochemical companies. The EU’s behaviour is not in accordance with their standards. Therefore, the EU should be held accountable.

Member States should be held accountable as well. EU Member States should take notice of the responsibilities under international law and EU-legislation and the Union’s values in their policies. The Member States remain to have the primary responsibility to protect and respect human rights under international human rights law. The EU Member States are obligated to make sure that their corporations do not violate human rights. With its NAP, Germany shows responsiveness, compliance with the Guiding Principles and provides victims of corporate human rights violations that occurred abroad with access to justice. Germany also implemented a liability system for the corporations. In this sense, Germany seems to be compliant with written norms. It may, however, be questioned whether Germany is compliant with all TEU values because it allows the selling of hazardous pesticides outside the EU’s internal market. Germany has set the deadline for businesses to comply to the NAP in 2020, which suggests that Germany meets its due diligence obligation to prevent and punish extraterritorial

human rights violations by their corporations, for now. However, since accountability goes beyond legal obligations and, arguably, also beyond deadlines, Germany should still closely monitor and control the acts of the agrochemical companies and actively encourage them to not violate human rights abroad. The creation of the NAP provides a legal framework for corporate conduct and liability, but Germany's efforts to enhance corporate accountability should not be limited to this because not everything in the NAP may have the desired effect. For example, creating the possibility for victims to access German courts may still not be practicable for victims in developing countries, because of difficulties such as collecting sufficient evidence and costs.⁶⁸⁷ Germany states to contribute to capacity building in developing countries, which is an important step in enhancing the corporate accountability with respect to human rights violations caused by hazardous pesticides.

687 Nadia Bernaz, 'Enhancing Corporate Accountability for Human Rights Violations: Is Extraterritoriality the Magic Potion?' (2012) 117 JBusEthics 510

6 The accountability for agrochemical companies

6.1 Written norms, goals and values for corporations

6.1.1 Subjectivity to law

To be able to understand whether or not corporations have obligations in protecting and respecting human rights, it is important to know who are subjected to international human rights. International human rights law is State-centred, which raises the question whether corporations have obligations because only States sign and ratify international law.⁶⁸⁸ This question has been addressed by Bernaz. In her book *'Business and human rights: history, law and policy-bridging the accountability gap'*, she describes different authors' and experts' views on the subjects of law. International law provides both individuals and businesses with rights they can claim against a State. Furthermore, the UDHR creates duties for individuals as well and therefore also for business executives. International law also puts duties on corporations as a whole because they should not violate human rights described in the international human rights law. Therefore, it is argued that States, individuals and corporations are all subjected to international human rights law. The discussion also includes the differences between States and corporations, such as law-making powers and sovereignty, indicating different levels of subjectivity to international human rights law. In the first place, the international human rights law was made to deal with human rights violations caused by States. Taking this into account, the comment is made that international human rights law puts direct obligations on States. The obligations put on corporations are indirect because they are bound to domestic law of the States they operate in. Since this comment is based on a conservative reading of the law⁶⁸⁹, the current study treats businesses as indirect subjects of international human rights law.

6.1.2 The practical implications of the UN Global Compact on corporations

The ten principles at the heart of the UN Global Compact become goals and values for corporations that sign this compact. Even though the compact is not legally binding, commitment by corporations shows that they have incorporated normative values into their practices. As noticed earlier, agreeing to standards that are perceived legitimate is a way to manage legitimacy. In the current study, the UN Global Compact's standards are perceived as legitimate. Agreeing with those standards can be perceived as a virtue. Thus, by signing the UN Global Compact corporations can manage credibility and social acceptance.

688 N Bernaz, *Business and Human Rights: History, Law and Policy - Bridging the Accountability Gap* (Human Rights and International Law, Routledge, London 2017) 86

689 *ibid* 88-91, 93

In order to achieve corporate sustainability, the UN Global Compact provides five core elements for businesses to pursue. Firstly, corporate sustainability starts with ‘operating with integrity- respecting fundamental responsibilities in the areas of human rights, labour, environment and anti-corruption’.⁶⁹⁰ These fundamental responsibilities are set out in the Global Compact’s principles and should be respected throughout the whole supply chain.⁶⁹¹ The Global Compact makes an important statement towards respecting those principles.

Yet, principles are about far more than compliance. They provide common ground for partners, a moral code for employees, and accountability measure for critics. A growing number of companies are seeing beyond risk, finding real value in actively addressing social, environmental and governance issues.⁶⁹²

This view is shared in the Guiding Principles’ corporate human rights due diligence processes and the German NAP in which risks should not only be identified but also prevented or mitigated. Furthermore, the statement supports the current study’s understanding of accountability because this concept also provides that accountability entails more than compliance to written norms.

The second element provided by the Global Compact is to ‘strengthen Society’.⁶⁹³ In order to succeed in a society, the corporation should support the respective society while exercising business operation. This can occur through, for example, cooperation with stakeholders to deal with aspects such as corruption, poverty and uneducated workers. Thirdly, in order to participate in the Global Compact, the corporation’s chief executive has to make a public statement because long-term leadership commitment to sustainability is important to achieve fundamental change. Furthermore, the chief executive should stimulate the incorporation of those long-term views into all policy and executive areas. The fourth element concerns the reporting obligations. Annually, corporations have to report a Communication on Progress which is publicly available on the Global Compact’s website. This increases transparency on the impact of efforts and progresses made in achieving sustainable development. With the fifth element, the Global Compact aims at harmonising the understanding and performance of nations and communities by assisting corporations to ensure sustainable development in their local action.⁶⁹⁴

The Global Compact also contributed to Unicef’s framework on ‘*Children’s Rights and Business Principles*’.⁶⁹⁵ The Global Compact’s ten principles are incorporated in this document. In meeting those principles, publicly available policy commitment via statements of the senior management, human

690 UNGC, *Guide to Corporate Sustainability: Shaping a Sustainable Future* (UNGC, New York 2014) 8

691 ibid

692 ibid

693 ibid 8

694 ibid 8-9

695 Unicef, UNGC and Save the Children, *Children's Rights and Business Principles* (Unicef, New York 2009)

rights due diligence and enabling remediation processes for child victims are important. In respecting children's rights, corporations have duties, including: child labour should be abolished; young workers should be protected from hazardous work; children should be protected against exposure to products or services that are harmful mentally, morally or physically and children's rights may not be affected through the damage of the environment or decreased accessibility to natural resources.⁶⁹⁶ By incorporating respect and support for children's rights in all policy and executive areas, a corporation can improve its progress in achieving corporate sustainability and 'such efforts can build reputation, improve risk management and secure their social license to operate'.⁶⁹⁷

6.1.3 Corporate responsibility to protect human rights

The Guiding Principles define the State's duty to protect and the corporate responsibility to respect human rights. The third duty refers to the realisation of the State's duty to protect by ensuring access to remedies. As noticed in subparagraph 3.2.4, the corporate responsibility is a 'global standard of expected conduct'.⁶⁹⁸ Thus, corporate responsibility can be perceived as a virtue as well.

The definition of responsibility applied in the Guiding Principles differs from the one applied in the current study. In the current study, responsibility arises from legal obligations. In the Guiding Principles, the use of the term *duty* comprises legal obligations. McCorquodale provides an explanation for the confusing use of the two terms, the Guiding Principles' concept of corporate responsibility covers, besides moral obligations, also legal and social obligations for businesses.⁶⁹⁹ This is further explained in the Guiding Principles. The corporate's responsibility 'exists independently of State's abilities and/or willingness to fulfil their own human rights obligations, and does not diminish those obligations'.⁷⁰⁰ That is why a corporation still has the responsibility to respect human rights, even if a State is not able to meet its human rights obligations.⁷⁰¹ According to the OECD, businesses 'are expected to obey the law, even if it is not enforced, and to respect the principles of relevant international instruments where national law is absent'.⁷⁰² Thus, through national legislation and

696 *ibid* 14-18, 22, 24, 28

697 *ibid* 3

698 See note 457

699 Robert McCorquodale, 'Corporate Social Responsibility and International Human Rights Law' (2009) 87 *JBusEthics*

700 OHCHR, 'Guiding Principles on Business and Human Rights: Implementing the United Nations 'Protect, Respect and Remedy' Framework' (2011) UN Doc A/HRC/17/31 13 *Commentary on art 11*

701 *ibid* 13

702 International Organization of Employers, International Chamber of Commerce and Business and Industry Advisory Committee to the OECD, *Business and Human Rights: The Role of Government in Weak Governance Zones* (Business Proposals for Effective Ways of Addressing Dilemma Situations in Weak Governance Zones, IOE, Geneva 2006) paragraph 15

policies, businesses' responsible practices can contribute to the State's obligation to promote, protect and fulfil human rights.⁷⁰³

As mentioned in subparagraph 3.2.6, European CSR standards for companies are based on internationally recognised principles and guidelines, such as the UN Global Compact and the Guiding Principles. Therefore, when corporations implement EU CSR standards, they can meet their obligation to respect human rights. NAPs, such as the German NAP, provide guidance on how to do this.

6.2 BASF: We Create Chemistry

BASF has the aim to 'add value in the long term for our company, the environment and society'.⁷⁰⁴ Sustainability is a key factor for the corporation's policies and operations. The corporation's strategy and goals are stipulated on their website. According to this website, the corporation uses natural resources responsibly, their manner of production is safe for people and the environment, their production is efficient, they treat humans with respect and aim at driving sustainable products and solutions.⁷⁰⁵ The company wants to meet its goals and values by, among other things, relying on research and development. Furthermore, BASF also states to 'actively support' the UN's Sustainable Development Goals.⁷⁰⁶ Regarding CSR, BASF provides nonfinancial statements with which transparency is increased.⁷⁰⁷ Also, BASF states that 'Oekom Research AG [ISS-Oekom] has rated BASF again in the category Prime' which is a category assigned to companies that are leading in social and environmental policies.⁷⁰⁸ Human rights protection, societal commitment and political influence and transparency are included in ISS-Oekom's investigation area of society and product responsibility.⁷⁰⁹

BASF published a document with the title '*BASF Group's Position on Human Rights*'.⁷¹⁰ BASF acknowledges its corporate responsibility to respect human rights and supports those rights. They recognise international standards and support their business partners and suppliers to be compliant

703 UNGA, 'Human Rights and Transnational Corporations and Other Business Enterprises' (2014) UN Doc A/HRC/RES/26/22

704 BASF, 'We create chemistry for a sustainable future' <<https://www.basf.com/global/en/who-we-are/sustainability.html>> accessed 14 February 2019

705 ibid

706 Kurt Bock, 'Letter from the Chairman of the Board of Executive Directors' (2018) <<http://report.basf.com/2017/en/shareholders/letter-from-the-chairman.html>> accessed 14 February 2019

707 BASF, 'Nonfinancial statement (NFS) in accordance with sections 315b and 315c of the German Commercial Code (HGB)' (2018) <<https://report.basf.com/2017/en/managements-report/our-strategy/integration-of-sustainability/nonfinancial-statement.html>> accessed 14 February 2019

708 Tim Balensiefer, 'Sustainability Ratings and Rankings - Oekom' (BASF, 2019) <<https://www.basf.com/global/en/investors/sustainable-investments/sustainability-ratings-and-rankings.html>> accessed 14 February 2019

709 Institutional Shareholder Services Inc. (ISS ESG), 'Industry Focus Chemicals' (2019)

710 BASF, *BASF Group's Position on Human Rights* (BASF SE, Ludwigshafen 2011)

with those standards as well. They contribute to the society through participation in programmes aimed at education and science. Vulnerable groups, besides indigenous peoples, are not mentioned, but the company does prevent child labour. With reports, hotlines and consultations with experts, the company works on transparency.⁷¹¹

To summarise the information above, BASF seems to be transparent, builds credibility by agreeing to legitimate standards and by presenting themselves positively on their website. Furthermore, BASF has several human rights due diligence mechanisms in place to show compliance with those standards. Despite this, and their commitment to act with CSR, in 2018 the company was accused of producing hazardous pesticides that are banned within the EU and of selling those in high quantities in Brazil and developing countries.⁷¹² According to Gross' news article, BASF denied that their subsidiary in Brazil produces and sells hazardous pesticides such as Atrazine or Paraquat. However, the journalist argues that it did not deny such operations in other subsidiaries or in the EU.⁷¹³ In subparagraph 2.4.3, it was mentioned that Barrios identified 38 producing subsidiaries in developing countries and that active substances are produced in Germany. Therefore, it could still be possible that BASF produces hazardous pesticides in Germany or other subsidiaries besides Brazil, and subsequently exports those to developing countries where this act results in human rights violations. It should be noted that Barrios' findings date from 2004 which may be considered to be outdated. Especially since BASF published its position on human rights in 2011, the possibility should be taken into account that their practices might have changed since then. However, Barrios' statement on BASF's involvement in the trade of hazardous pesticides does not contradict PAN Germany's findings in 2011. Another factor should be taken into account as well, BASF states to be involved in several regions, including Asia.⁷¹⁴ In its online report of 2017, BASF notes that Asia is 'the most profitable region for BASF'.⁷¹⁵ In this region, 70 percent of the most used pesticides were HHPs in 2010. Because of BASF's prominent market position, the possibility should be taken into account that the company contributed to this. Moreover, the Guiding Principles were adopted in 2011 and BASF joined the UN Global Compact already back in 2000. The company's commitment to these standards does therefore not provide an argument for BASF's innocence.

711 *ibid* 1-3

712 AS Gross, 'Brazil's Pesticide Poisoning Problem Poses Global Dilemma, Say Critics' Mongabay Amazon Agribusiness (Cerrado Date) <<https://news.mongabay.com/2018/08/brazils-pesticide-poisoning-problem-poses-global-dilemma-say-critics/>> accessed 5 October 2018

713 *ibid*

714 BASF, 'We create chemistry for a sustainable future ' <<https://www.basf.com/global/en/who-we-are/sustainability.html>> accessed 14 February 2019

715 Kurt Bock, 'Letter from the Chairman of the Board of Executive Directors' (2018) <<http://report.basf.com/2017/en/shareholders/letter-from-the-chairman.html>> accessed 14 February 2019

As shown in subparagraph 2.4.2, the language or symbols on the labels could be misinterpreted or not understood in developing countries, which puts farmers at a higher risk for pesticide exposure. Thus, even when BASF provides information on the sound management of their products, this does not necessarily mean that their products are safe for the respective society. In their human rights position, the statement is made that ‘we ensure that our products pose no danger to people or the environment when they are used responsibly and in the manner intended’.⁷¹⁶ Even when this is true and BASF’s labels are compliant with requirements of the GHS system, one can question the business’ due diligence process in which identification, mitigation and protection of direct and indirect negative effects on human rights is one of the core elements. The company should be aware of the negative effects on health and environment after their products have been sold. Especially regarding local populations and vulnerable groups such as children, pregnant women and farmers. Thus, BASF should be aware of the fact that responsible use of their products cannot simply be assumed in developing countries. BASF states to contribute to society by being involved in education programmes. When such programmes cover labelling, this can attribute to the corporation’s due diligence. Other solutions for this problem could also be to adjust the comprehensibility and readability of the labels, provide trainings on how to use BASF products or to stop selling and producing the HHPs that cause human rights violations. However, the latter can be considered the last resort according to the German NAP. Instead, BASF should focus on ensuring remedial measures.

When BASF is indeed involved in transboundary harm because of their products, they should be held accountable because this act does not agree with their goals and values based on written norms, such as the value to protect human rights and sustainable development goals. In addition, their due diligence process can be contested.

6.3 Bayer: Science For A Better Life

Bayer Global supports sustainability and, according to their website, they incorporate this into their corporate strategy in which their main goals are food security and healthcare.⁷¹⁷ As their mission statement implies, their overall goal is to improve people’s quality of life.⁷¹⁸ Furthermore, the company claims to meet its responsibility to protect the environments and has several measures in place to reduce their impact on the environment.⁷¹⁹

716 BASF, *BASF Group's Position on Human Rights* (BASF SE, Ludwigshafen 2011) 3

717 Bayer Global, 'Our commitment to Sustainability' (Bayer, last updated 1 August 2018) <<https://www.bayer.com/en/sustainability.aspx>> accessed 14 February 2019

718 Bayer Global, 'Relevant Positions: Bayer Human Rights Position' (Bayer last updated 14 December 2018) <<https://www.bayer.com/en/bayer-human-rights-position.aspx>> accessed 14 February 2019

719 Bayer Global, 'Environmental Protection' (Bayer, last updated 2 August 2018) <<https://www.bayer.com/en/environmental-protection.aspx>> accessed 14 february 2019

Bayer published a position on Human rights as well.⁷²⁰ Besides the UN Global Compact, Bayer supports the Guiding Principles. The company elaborates on human rights within their company, their expectations towards their suppliers and their commitment to their customers. Bayer wants to make sure that health and safety are guaranteed for everyone who gets in contact with their products. In order to achieve this, Bayer assesses risks related to health and environment for all their products. Importantly, the company acknowledges that the handling of pesticides is necessary to protect human rights and claims to support their customers and partners in doing this in a safe manner. Bayer addresses and monitors the effects of their business in local communities and plant neighbours. Furthermore, they respect the rights of indigenous people and to abolish child labour. In addition, they have the objective to use natural resources responsibly. The company provides communication channels, remediation for human rights violations and grievance mechanisms. In the position, Bayer states to promote human rights in every location in the world and to respect the State's obligation to protect human rights. Bayer publishes annual reports since 2013 on their finances that include ecological and societal elements as well.⁷²¹

Bayer CropScience publishes reports with results of their performed safety studies on their website to increase transparency.⁷²² Bayer increases the publicly availability of their reports by keeping access free of charge, which is not done by BASF. The company is involved in societies in order to 'contribute to society's future viability and create value in divers ways'.⁷²³ Bayer is involved in education, science, health and social needs by donating € 48 million to projects.⁷²⁴ With respect to their CSR-policy, Bayer financially supports and assists the development of social conditions on every location where they operate. Furthermore, they cooperate with both government and non-governmental organisations.⁷²⁵

In 2015, the European Centre for Constitutional and Human Rights (ECCHR) together with the FAO, the WHO and other organisations published an '*Ad Hoc Monitoring Report – Claims of (non-)adherence by Bayer CropScience and Syngenta to the Code of Conduct Provisions on Labeling, Personal Protective Equipment, Training and Monitoring*'. Information for the report was gathered from the Malwa Region of Punjab in India.⁷²⁶ This Ad Hoc report selected Bayer and Syngenta because of their dominant

720 Bayer Global, 'Relevant Positions: Bayer Human Rights Position' (Bayer last updated 14 December 2018) <<https://www.bayer.com/en/bayer-human-rights-position.aspx>> accessed 14 February 2019

721 ibid

722 Bayer, 'Transparency in Crop Science' (Bayer) <<https://www.cropscience-transparency.bayer.com/>> accessed 14 February 2019

723 Bayer Global, 'Working on Behalf of a Better Life' (Bayer) <<https://www.bayer.com/en/social-responsibility.aspx>> accessed 14 February 2019

724 ibid

725 ibid

726 ECCHR and others, *Ad Hoc Monitoring Report - Claims of (Non-)adherence by Bayer CropScience and Syngenta to the Code of Conduct Provisions on Labeling, Personal Protective Equipment, Training and Monitoring* (2015)

position in the Indian market and because of the attention drawn to the issue of health impacts due to pesticides in Punjab by the media and academic reports. The report concluded that the labels of all investigated pesticides were not compliant with the FAO's Code of Conduct and the FAO's Guidelines on Good Labelling Practice for Pesticides.⁷²⁷ The following results of interviews with 32 farmers about their understanding of the label, the safety information provided on the label, the access and use to personal protective equipment (PPE) and trainings, were summarised:

The survey results suggested that: 1.) the labels lack essential information to be provided according to the Code of Conduct and the Labelling Guidelines 2.) adequate training of company representatives and users, as well as access to PPE in local markets is still lacking and the use of PPE was witnessed in only two instances. The interviews further indicated that company representatives at various levels are aware of these apparent violations ongoing in the Punjab.⁷²⁸

It was also noticed, that when the company did comply with labelling guidelines, such as font size and pictograms, farmers were still unable to understand or read those labels.⁷²⁹ According to the report, this finding was linked to the Guidelines appropriateness and not to the companies.⁷³⁰

Bayer showed responsiveness to the accusation by publishing an open letter.⁷³¹ In this letter the company denied non-compliance with the FAO's Code of Conduct and the company addresses elements from their human rights position. It is stated that the company provides 'regular farmer trainings and awareness programs' that aim at, among other things, responsible use and storage of PPPs and the proper use of PPE. Bayer emphasises their responsible character and shows willingness to engage in dialogues with authorities and the FAO.⁷³² The ECCHR finds Bayer to violate their own promises, international guidelines and both Indian and German law.⁷³³ Bayer did not react to this and continued the selling of the HHPs in India without compliance to the labelling guidelines. The ECCHR acknowledges the need for protective equipment, such as clothing that is suitable for the climate conditions. According to them, providing access to information is not sufficient to ensure safe use of

<https://www.ecchr.eu/fileadmin/Juristische_Dokumente/Ad_Hoc_Monitoring_Report_Final.pdf>
accessed 20 February 2019 3

727 ibid

728 ibid 4

729 ibid

730 ibid

731 Bayer CropScience AG, 'Bayer CropScience Response to Ad Hoc Monitoring Report' (Open Letter to the ECCHR)

<https://www.ecchr.eu/fileadmin/Juristische_Dokumente/Ad_Hoc_Monitoring_Report_Bayer_CropScience_Position-17102015.pdf> accessed 14 February 2019

732 ibid 1-2

733 ECCHR, 'Case Information' (Case Report on Bayer CropScience)

<https://www.ecchr.eu/fileadmin/Fallbeschreibungen/CaseReport_Bayer_Nativo_India_Germany_2016_1019.pdf> accessed 20 February 2019 1

products. The manufacturers are supposed to ensure the safe use of their pesticides and ‘the pesticide industry should halt sales if it is not certain that the end user implements the necessary safety measures’.⁷³⁴

In 2018, Bayer CropScience was accused again of selling and producing HHPs banned in the EU to developing countries and Brazil.⁷³⁵ In addition, Barrios and PAN observed such acts as well. Bayer CropScience should thus be accountable for this act. The accountability of Bayer CropScience can be determined in a similar way as BASF’s accountability with respect to the labelling and children’s rights protection. Bayer CropScience does not show to be compliant with written norms, being their own goals and values and those of the UN Global Compact, because the above described case shows that not all their products can be deemed safe for humans and the environment, but also because their statement to provide trainings can be questioned. Their trainings may not take place at all, or not be sufficient enough to contribute to safe use. If Bayer is not able to realise protective equipment it should not sell their products. Bayer manages credibility by increasing transparency, donating to societal projects, communicating their commitment to internationally recognised standards and by being responsive towards claims of non-performance. However, their actions do not seem to match their words. Bayer should implement more effective due diligence processes to ensure safe use of their products or refrain from the trade of HHPs.

6.4 Syngenta

The current study includes Syngenta because it is one of the biggest pesticide producers. It should be noted that Syngenta has its headquarters in Switzerland which is not a EU Member State.⁷³⁶ Switzerland is, however, a major partner of the EU and participates in the internal market and shares EU values because ‘it is mostly in the interests of both parties to avoid differences in areas such as security, health or environmental standards’.⁷³⁷ Products from Swiss companies deemed safe according to EU standards, can enter the internal market. In 2004, Switzerland became a member to the European Environment Agency (EEA) which provides Switzerland with access to all data and information provided by EU Member States regarding environmental elements such as water and air pollution, soil contamination and climate change. With the EEA the EU aims at improving environmental protection.⁷³⁸ Because Switzerland is assumed to have the same environmental values

734 ibid 3

735 AS Gross, ‘Brazil’s Pesticide Poisoning Problem Poses Global Dilemma, Say Critics’ Mongabay Amazon Agribusiness (Cerrado Date) <<https://news.mongabay.com/2018/08/brazils-pesticide-poisoning-problem-poses-global-dilemma-say-critics/>> accessed 5 October 2018

736 DEA and FDFA, *Switzerland and the European Union* (DEA, Bern 2016)

737 ibid 3, 24

738 ibid 3, 21, 25, 37

as the EU, it is also considered to be a double standard to allow trade of HHPs that are banned from the EU's internal market to developing countries. Switzerland has the same environmental responsibilities as the EU and EU Member States have under the ILC Draft Articles and also have the responsibility to protect, respect and promote human rights according to the human rights treaties. Switzerland signed and ratified the core international human rights treaties in 1992.⁷³⁹

In 2018, Syngenta published an extensive and clear updated Code of Conduct.⁷⁴⁰ The company's goal is 'to bring plant potential to life, while feeding the world safely and taking care of our planet'.⁷⁴¹ Other goals are integrity, working ethically and transparently and being accountable. The document defines responsibilities for managers and workers. Syngenta claims to be transparent, responsible and compliant with all applicable laws, including the UDHR.⁷⁴² For meeting their goal to be a trusted company, Syngenta commits itself to the highest standards for 'fairness, honesty and integrity' and claims that 'through this, we can take great pride in how we conduct our business and our contribution to society'.⁷⁴³ With respect to society, Syngenta wants to positively contribute to the society and this includes being welcoming and responsive towards people's concerns. Also, in building trust, Syngenta has a welcoming attitude towards dialogues with, among others, governmental and non-governmental organisations.⁷⁴⁴ To meet its environmental responsibilities, Syngenta takes 'all reasonable steps to preserve the quality and quantity of natural resources including water, land and air through responsible scientific, economic, social and commercial practices'.⁷⁴⁵ With their products, Syngenta aims at innovation and safe products that both increase agricultural productivity and the quality of life. By publishing reports on their findings, Syngenta aims at transparency. Syngenta does not elaborate extensively on human rights, not in their Code of Conduct, nor on their website. The company mainly mentions the international standards to which they commit themselves: the UDHR, the ILO, the Guiding Principles, the UN's Sustainable Development Goals, Global Business Initiative on Human Rights and the Fair Labour Association.⁷⁴⁶ Just like BASF and Bayer, Syngenta does not permit child labour.⁷⁴⁷ With the Good Growth Plan, Syngenta presents its CSR-policy. On their website they

739 OHCHR, 'View of the ratification status by country or by treaty - Ratification Status for Switzerland' <https://tbinternet.ohchr.org/_layouts/TreatyBodyExternal/Treaty.aspx?CountryID=169&Lang=EN> accessed 14 February 2019

740 Syngenta, *Our Commitment to Integrity and Responsibility: the Syngenta Code of Conduct* (Syngenta, Basel 2018)

741 *ibid* 1

742 *ibid* 1-10, 30

743 *ibid* 13

744 *ibid* 13-18, 21

745 *ibid* 20

746 Syngenta Global, 'Human Rights' (Syngenta Global) <<https://www.syngenta.com/how-we-do-it/corporate-responsibility/human-rights>> accessed 14 February 2019

747 Syngenta, *Our Commitment to Integrity and Responsibility: the Syngenta Code of Conduct* (Syngenta, Basel 2018) 20-30

provide information on their six commitments and their progress. One of those is the commitment 'to train 20 million farm workers on labour safety, especially in developing countries'.⁷⁴⁸

In the ECCHR's Ad Hoc report of 2015, Syngenta was accused of non-compliance with the FAO's Code of Conduct with respect to labelling as well. In this report, Gramoxone was investigated which is Syngenta's trademark for Paraquat.⁷⁴⁹ Furthermore, Gross' news article in 2018 also accused Syngenta of trading Paraquat and Atrazine.⁷⁵⁰ Barrios and PAN Germany observed the trade of Paraquat and other HHPs as well. Accountability of this company concerning ensuring safe use of pesticides can be determined and interpreted in the same manner as for BASF and Bayer.

Syngenta builds credibility by aiming at transparency and committing itself to internationally recognised standards. Furthermore, the company welcomes concerns. In the Frequently Asked Questions (FAQ) section of their website, Syngenta's position on Atrazine is asked.⁷⁵¹ Syngenta answers by indicating that farmers have been using Atrazine safely and effectively. Also, the company emphasises Atrazine's positive effect on agricultural product. Syngenta deems Atrazine safe and supports their position by providing legitimate organisations, such as the WHO and the US EPA. In their answer, Syngenta provides three websites for further reading.⁷⁵² One of these websites state that there is no substitute for Atrazine⁷⁵³, but in Europe the consumed amount of Atrazine has decreased since 1989 because of newer and less-persistent herbicides.⁷⁵⁴ The websites all support Syngenta's view on Atrazine and claim its safety for both humans and the environment. However, the websites can be led back to Syngenta and may therefore be perceived as biased. Moreover, Syngenta invented Atrazine and the pesticide contributes to most of the company's products.⁷⁵⁵ Therefore, it is not unexpected that Syngenta would defend and even promote Atrazine. Atrazine is classified by the WHO as slightly hazardous and listed in PAN's HHP list which indicates Atrazine's acute toxicity. The current study also addresses its persistency in the environment, especially in groundwater, and the serious adverse

748 Syngenta Global, 'Help People Stay Safe' <<https://www.syngenta.com/what-we-do/the-good-growth-plan/help-people-stay-safe>> accessed 14 February 2019

749 Paula Barrios, 'The Rotterdam Convention on Hazardous Chemicals: A Meaningful Step Towards Environmental Protection?' (2004) 16 *GeolntLEnvtlLRev*194

750 AS Gross, 'Brazil's Pesticide Poisoning Problem Poses Global Dilemma, Say Critics' *Mongabay Amazon Agribusiness* (Cerrado Date) <<https://news.mongabay.com/2018/08/brazils-pesticide-poisoning-problem-poses-global-dilemma-say-critics/>> accessed 5 October 2018

751 Syngenta Global, 'Solutions- FAQ' (Syngenta Global) <<https://www.syngenta.com/how-we-do-it/corporate-responsibility/frequently-asked-questions/solutions-faq>> accessed 14 February 2019

752 *ibid*

753 Syngenta United States, 'Atrazine Herbicide' (Syngenta United States) <<http://www.atrazine.com/atramain.aspx>> accessed 14 February 2019

754 Arnt Vlaardingerboek and others, 'An Inventory and Assessment of Options for Reducing Emissions: Atrazine' (2009) 3 *SOCOPSE*12

755 PAN North America, 'The Syngenta Corporation & Atrazine: The Cost to the Land, People & Democracy' (2010) <<http://www.panna.org/sites/default/files/AtrazineReportBig2010.pdf>> accessed

health effects after prolonged exposure. Moreover, Syngenta refers to the US EPA, but this organisation bases their risk/benefit analysis mainly on the US and provides little information on the impact of the pesticide in other countries.⁷⁵⁶ In addition, the US EPA is currently re-evaluating Atrazine.⁷⁵⁷ Also, the pesticide is banned in the EU which indicates that Syngenta would also conflict with Switzerland's values when Atrazine is produced and sold extraterritorially. Overall, Syngenta should be accountable for producing, exporting, promoting and defending Atrazine because these acts conflict with Syngenta's values and goals, including those of the UN Global Compact, Guiding Principles and international law. Firstly, it contradicts the value of improving quality of life and the protection of the planet because it does exert adverse effects on both human health and the environment. Secondly, it contradicts integrity, working ethically and responsibly, because it promotes Atrazine as safe while scientific data does not support this claim. Furthermore, Syngenta seems to have double standards which does not support their claim of integrity. PAN North America provides Syngenta with the recommendation to inform their workers, the public and farmers of Atrazine's risks.⁷⁵⁸ The organisation also states that 'because of its past record of producing faulty science on atrazine, Syngenta should recuse itself from the current review of atrazine'.⁷⁵⁹

With respect to Paraquat, Syngenta claims this pesticide as safe and effective when it is used as the label prescribed.⁷⁶⁰ However, the company does acknowledge the use of Paraquat in suicide attempts and the unintentional exposure to Paraquat because of wrong storage methods. Syngenta states to be actively involved in supporting 'suicide prevention and end-user training programs' and to contribute to identifying acute poisoning due to Paraquat by providing 'a document summarizing the actual status of knowledge'.⁷⁶¹ Although this contributes to the company's due diligence process, whether it is sufficient remains a topic for debate because, as data in the current study has shown, acute poisonings due to Paraquat are still a matter of concern. Syngenta should be accountable for its double standards in the export of HHPs and its due diligence process.

6.5 Additional remarks on accountability of agrochemical companies

For all three agrochemical companies the same accountability applies. The companies are accountable towards their home or host State and individuals. Because of the incorporation of the Polluter Pays

756 Paula Barrios, 'The Rotterdam Convention on Hazardous Chemicals: A Meaningful Step Towards Environmental Protection?' (2004) 16 *GeoIntlEnvtlLRev* 698

757 PAN North America, 'The Syngenta Corporation & Atrazine: The Cost to the Land, People & Democracy' (2010) <<http://www.panna.org/sites/default/files/AtrazineReportBig2010.pdf>> accessed 37

758 *ibid*

759 *ibid*

760 Syngenta Global, 'Paraquat Poisoning' (Syngenta Global) <<https://www.syngenta.com/what-we-do/crops-and-products/paraquat-safety>> accessed 14 February 2019

761 *ibid*

Principle in domestic law, the companies can be held liable in domestic courts under international environmental law. In international human rights law, the German businesses cannot be held responsible in the ECtHR because they are not direct subjects of law, but they can be held responsible and liable in domestic courts for insufficiently meeting the corporate responsibility to respect human rights via due diligence processes.⁷⁶² In Germany, however, holding companies responsible and liable in human rights cases before 2020 may pose a difficulty because German companies are not yet obligated to comply with the NAP.

Regarding the right to food, the General Comment No. 12 defines the responsibilities of both States and businesses. States are accountable for compliance with the ICESCR but all members of the society have responsibilities.⁷⁶³ Business entities, both national and transnational, are considered members of society as well and should comply with a code of conduct that respects the right to adequate food.⁷⁶⁴ Businesses can interfere with sustainable development because of the use of hazardous pesticides because these chemicals affect the environment and human health. Even though the use of hazardous pesticides is justified with the argument that the chemicals increase food production which in turn increases food availability, the use of those chemicals also conflicts the corporation's commitment to the UN's Sustainability Development Goals. Especially since the goals of Agenda 2030 include the reduction of deaths and illnesses due to hazardous chemicals and the pollution of natural resources due to those chemicals. Also, the businesses can play an important role in the State's responsibility to provide food that is adequate, because they can influence the quality and safety of food by reducing the presence of pesticide residues via ensuring the sound management of pesticides. Businesses should, therefore, commit to reducing the use of HHPs or ensure their safe use. However, as discussed earlier, safe use is a difficult goal to achieve. One of Syngenta's goals is to ensure food security, which can be achieved by contributing to adequate, accessible and available food.

Private actors such as corporate actors have dominant powers in political debates and decision-making with respect to the right to food.⁷⁶⁵ As a consequence, public actors such as governments and farmer associations are losing their regulatory powers.⁷⁶⁶ Agrochemical companies, such as Bayer, have access to decision-making in standard setting bodies like the Codex and, subsequently, has an influence on

762 IDLO, *Realizing the Right to Food: Legal Strategies and Approach* (IDLO, Rome 2014) 14

763 OHCHR, 'CESCR General Comment No.12: The Right to Adequate Food (Art.11)' (1999) UN Doc E/C.12/1999/5 paragraph 20

764 *ibid*

765 Hilal Elver, 'The Challenges and Developments of the Right to Food in the 21st Century: Reflections of the United Nations Special Rapporteur on the Right to Food' (2016) 20 JILFA

766 *ibid* 20

the pesticide standard setting.⁷⁶⁷ Financial profits drive corporations and they may aim for lower standards in order to meet their own interests. This is supported by Elver.

(...) the global food system is structured and subsequently governed by corporate, financial, and powerful political actors in a manner consistent with their interests. For example, global trade rules jeopardize food self-sufficiency and food safety, which are crucial elements of food security and the right to food. This leaves developing countries in a dangerous position, in which they are vulnerable to food price spikes, general market volatility, and other economic crises.⁷⁶⁸

In determining accountability for companies, normative values are very important. Human rights duties for corporations mostly consist of soft law which means that willingness to comply with those norms is essential. Corporations should take this into account in decision-making processes, because 'with power come responsibilities'.⁷⁶⁹ Furthermore, with respect to their products, compliance with written norms has shown to be insufficient to reach the company's goals and values. Company's build their credibility mostly by publishing reports on CSR, human rights, codes of conduct and mentioning standards that are socially expected. Also, statements on fighting corruption and anti-bribery are included in the CSR-policies of Syngenta, Bayer CropScience and BASF. It should not be underestimated that companies try to uphold their reputation by creating one's perception via statements on values and recognition of high standards. This could result in a gap between company ambitions and practices, resulting in a decreased sense of the company's trustworthiness. Rather than to reduce their corporate standards, businesses should improve their practices in order to survive.⁷⁷⁰

The protection of children, pregnant and lactating women and farmers should be incorporated in the due diligence processes of agrochemical companies. Furthermore, those processes must be evaluated according to an impact assessment in order to be sure whether the company's due diligence is sufficient or not. Since corporations should contribute positively to the State's responsibility to protect human rights, they should make sure that their adverse impacts on human rights are identified, prevented and mitigated. The Guiding Principles emphasises the need for corporations to assess impacts of conduct on human rights of vulnerable groups or populations, preferably before a business act is undertaken.⁷⁷¹ Liability may be put on individuals within the corporation when the human rights

767 Leslie Sklair, 'The Transnational Capitalist Class and Global Politics: Deconstructing the Corporate-state Connection' (2002) 23 *IntPoliticalSciRev* 163

768 Hilal Elver, 'The Challenges and Developments of the Right to Food in the 21st Century: Reflections of the United Nations Special Rapporteur on the Right to Food' (2016) 20 *JILFA* 20

769 N Bernaz, *Business and Human Rights: History, Law and Policy - Bridging the Accountability Gap* (Human Rights and International Law, Routledge, London 2017)

770 *ibid* 92

771 OHCHR, 'Guiding Principles on Business and Human Rights: Implementing the United Nations 'Protect, Respect and Remedy' Framework' (2011) UN Doc A/HRC/17/31 20

violation is gross under international criminal law.⁷⁷² This should provide the company with a legal compliance incentive. Whether this affects agrochemical companies is arguable since gross human rights violations, such as genocide or slavery, by such corporations do not (often) occur. Human rights that are mostly affected by agrochemical companies are not covered by international criminal law. An example of such a human right is the right to water. Thus, agrochemical companies should make their corporate tasks and responsibilities clear internally but are accountable as a whole.

772 *ibid* 26. See also N Bernaz, *Business and Human Rights: History, Law and Policy - Bridging the Accountability Gap* (Human Rights and International Law, Routledge, London 2017) 103

7 The accountability for developing countries

This chapter aims at determining accountability for developing countries as the host States in general. However, domestic legal frameworks are not investigated, which makes it difficult to draw conclusions on domestic goals and values and compliance with domestic law. The effect of the Rotterdam Convention for developing countries is addressed. Furthermore, the goals and values of the international human rights and especially the right to food and the right to health as discussed in chapter 3 are used to determine accountability.

Barrios identified countries with subsidiaries of Syngenta, BASF and Bayer CropScience and the developing countries in which HHPs were put on the market. Those countries are Peru, Guatemala, Panama, Malaysia, Mexico, Korea, Colombia and India. Brazil is included in the current study as well. The discussion on developing countries in general is based on the above-mentioned countries and their ratification to MEAs and human rights treaties.

7.1 The Rotterdam Convention: a lack of real choice

The selected developing countries all ratified the Rotterdam Convention.⁷⁷³ The Stockholm Convention was ratified by the developing countries as well, except for Malaysia that only signed the Convention up to now.⁷⁷⁴ An overview of the ratification status for each of the developing countries is shown in table A1 in the appendix. Compared to the EU and its Member States, developing countries commit themselves to the same goals and values on which these MEAs were built, the UNCED's Principles. Therefore, upon ratification, developing countries committed themselves to the protection of the environment and human health against hazardous chemicals.

The introduction of the PIC procedure aimed at providing importing countries with the possibility to make good informed decisions on the import of hazardous pesticides.⁷⁷⁵ In order to reduce the trade of hazardous pesticides under the Rotterdam Convention, developing countries should refuse the import of hazardous pesticides. Economic and social factors in developing countries account for the inability to refuse import of hazardous pesticides, even though they share concerns for the environment and when they acknowledge their insufficient capacity for the sound management of

773 Secretariat of the Rotterdam Convention, 'Status of ratifications' <<http://www.pic.int/Countries/Statusofratifications/tabid/1072/language/en-US/Default.aspx>> accessed 22 March 2019

774 Secretariat of the Stockholm Convention, 'Status of ratification' <<http://chm.pops.int/Countries/StatusofRatifications/PartiesandSignatoires/tabid/4500/Default.aspx>> accessed 22 March 2019

775 Paula Barrios, 'The Rotterdam Convention on Hazardous Chemicals: A Meaningful Step Towards Environmental Protection?' (2004) 16 *GeoIntlEnvtlLRev* 682

pesticides. Developing countries may have to choose between the survival of their population or the protection of the environment, also addressed in subparagraph 2.4.2. The economic benefits of hazardous pesticides for developing countries can provide their population with basic needs, defined by Barrios as 'a lack of real choice'.⁷⁷⁶ For developing countries to be able to refuse the import of hazardous pesticides, affordable alternatives and capacity building are needed. This need is also addressed in the Rotterdam Convention's provisions. Barrios argues that the provided assistance by States is not sufficient to build capacity in developing countries.⁷⁷⁷ However, the Rotterdam Convention's objective aims at promoting shared responsibility and cooperative efforts. The terms *promotion* and *efforts* leave room for a subjective interpretation by States Parties on whether they have contributed to the Convention's objective.

7.2 Host State obligations regarding human rights

Table A2 in the appendix provides an overview of the ratification status of UN human rights treaties for each country. Except for Malaysia, all countries ratified the two core human rights treaties (ICCPR and the ICESCR). All selected developing countries ratified the CRC and the CEDAW which are applicable to identified vulnerable groups for hazardous pesticide exposure. Ratification of the human rights treaties binds the developing countries to recognise and protect the human rights laid out in those treaties.

7.2.1 The lack of real choice consequences for meeting the ICESCR's general obligation

In developing countries, the lack of real choice plays an important role in the human rights protection as well. In the current study, the argument has been presented that hazardous pesticides may be needed to realise the right to food and food security in developing countries. The Special Rapporteur on the right to food provides an opinion on this matter:

The right to adequate food embraces the notion that its realization must not interfere with the enjoyment of other human rights. Therefore, arguments suggesting that pesticides are needed to safeguard the right to food and food security clash with the right to health, in view of the myriad negative health impacts associated with certain pesticide practices.⁷⁷⁸

Thus, it is argued that hazardous pesticides do not contribute to the realisation of the right food because of their interference with the right to health. There is another side to this as well. As mentioned in subparagraph 3.2.3, the realisation of the right to food is needed to stop hunger and malnutrition within States. The CESCR acknowledges that most of the people who are suffering from

⁷⁷⁶ *ibid* 700

⁷⁷⁷ *ibid* 701-702, 761-762

⁷⁷⁸ UNGA, 'Report of the Special Rapporteur on the Right to Food ' (2017) UN Doc A/HRC/34/48 paragraph 91

malnutrition and hunger live in developing countries.⁷⁷⁹ The absence of hazardous pesticides could worsen these problems in developing countries, and this does not contribute to the right to health either because food and nutrition are underlying determinants of health. The developing country's lack of real choice is, again, to choose economic benefits over health costs in order to become more capable to protect the survival of its citizens.

Regarding the general obligation put on States by the ICESCR, described in subparagraph 3.2.1, the Special Rapporteur on the right to food argues that the terms *progressive* and the *maximum of available resources* result in a vague interpretation of the State's obligations, which makes enforcement difficult.⁷⁸⁰ A developing country can claim to have made *maximum use of available resources*. Due to a lack or absence of resources, developing countries can be unable to meet the minimum human rights obligations. In this situation, the State has to show that it made every effort to meet those obligations.⁷⁸¹ The OHCHR's Fact Sheet No. 31 on the right to health provides 'no State can justify a failure to respect its obligations because of a lack of resources'.⁷⁸² When a State cannot realise the right to food or the right to health by itself, it should pursue international collaboration.

Furthermore, the International Development Law Organisation's (IDLO) reasoning provides that *progressiveness* indicates action and not passivity. IDLO describes the term as requiring 'steps that are deliberate, concrete and targeted towards the fulfillment of economic and social rights'.⁷⁸³ For example, a domestic court is able to strengthen existing social programs in order to make sure more individuals can enjoy benefits from these programs and to shift the program's nature from charity to constitutionally recognised human rights.⁷⁸⁴ Therefore, developing countries are able to strengthen society programs, for example those aimed at education and health in which agrochemical companies participate, in order to make sure that these programmes contribute effectively to the progressive realisation of the right to food or the right to health.

The opinion adopted in the current study is that the adverse effects of hazardous pesticides on the right to food and the right to health should outweigh the positive ones. Therefore, developing countries have to be held accountable for failing to protect their citizens against these substances. Taking the OHCHR's opinion into account, the lack of real choice should not be ignored, nor should it

779 OHCHR, 'CESCR General Comment No.12: The Right to Adequate Food (Art.11)' (1999) UN Doc E/C.12/1999/5 paragraph 5

780 Hilal Elver, 'The Challenges and Developments of the Right to Food in the 21st Century: Reflections of the United Nations Special Rapporteur on the Right to Food' (2016) 20 JILFA 26

781 IDLO, *Realizing the Right to Food: Legal Strategies and Approach* (IDLO, Rome 2014) 20

782 OHCHR and FAO, *Fact Sheet No. 34, The Right to Adequate Food* (UN, Geneva 2010)

783 IDLO, *Realizing the Right to Food: Legal Strategies and Approach* (IDLO, Rome 2014) 13

784 *ibid*

be presented as a reason to not pursue international collaboration or implement other measures in order to progressively realise the right to food and the right to health.

7.2.2 Meeting obligations in the right to food

Developing countries should take the lead in ensuring sustainable food production by stimulating the businesses operating within their jurisdiction to reduce, stop or ensure safe use of hazardous pesticides. States should not hinder the access to food. If there are no affordable alternatives available, refraining from the use of hazardous pesticides could result in a breach of the State's obligation to respect the right to food because it would interfere with the individual's existing access to food, especially in terms of economic accessibility. The OHCHR states that a measure that affects accessibility can only be accepted when it is 'fully justified'.⁷⁸⁵ Arguably, a ban on hazardous pesticides could be justified because it would be the most effective method to achieve the protection of human health and the environment. However, it may not be *fully* justified considering the developing countries' current incapacity to enforce and their dependence on these chemicals.

Regarding the State's obligation to protect the right to food, States have to adopt and enforce legislation to prevent businesses of negatively affecting the access to adequate and sustainable food by producing and selling hazardous pesticides.⁷⁸⁶ The current study identified the existence of weak legal frameworks as a challenge for developing country which suggest that these countries fail to meet this obligation. Furthermore, the host State may not be able to meet its responsibility to protect human rights because of the involvement in multi-or bilateral agreements or its lack of the capacity to control the corporation's practices.⁷⁸⁷ This is especially true for developing countries.⁷⁸⁸

The same applies for ensuring adequate and available food and to guarantee the required environment for humans to be able to feed themselves in dignity. The developing countries seem to be in breach of their obligation to protect the right to food against the conduct of agrochemical companies operating within their jurisdiction. How developing countries can meet the State obligation to fulfil has been addressed in subparagraph 7.2.1 and is relevant for both the right to food and the right to health.

Victims can individually claim their rights in domestic courts. A State can ensure this by recognising the right to food in their constitutional law, by recognising this right as part of another human right or by recognising it as a principle of state policy.⁷⁸⁹ According to IDLO, the State has to incorporate provisions

785 OHCHR and FAO, Fact Sheet No. 34, The Right to Adequate Food (UN, Geneva 2010) 18

786 IDLO, Realizing the Right to Food: Legal Strategies and Approach (IDLO, Rome 2014) 13

787 Robert McCorquodale and Penelope Simons, 'Responsibility Beyond Borders: State Responsibility for Extraterritorial Violations by Corporations of International Human Rights Law' (2007) 70 ModLawRev 600

788 *ibid*

789 IDLO, Realizing the Right to Food: Legal Strategies and Approach (IDLO, Rome 2014) 23

on the right to food into their domestic law, which is also considered as progressive realisation of human rights.⁷⁹⁰ Among 23 other developing countries, Brazil and Mexico recognised the right to food as a self-standing right in their constitution. Other developing countries, for instance India, Guatemala and Panama, recognised the right to food as part of another human right like the right to an adequate standard of living or the right to life. Colombia's constitution protects civil and political rights, but not economic and social rights. Therefore, the Constitutional Court developed a new interpretation of fundamental rights that covers economic and social rights as well.⁷⁹¹ Furthermore, developing countries can use the Voluntary Guidelines, described in subparagraph 3.2.2, to progressively realise the right to food by creating national policies and measures to increase the accountability of States and non-State Parties of the ICESCR. The latter would be applicable to Malaysia.

7.2.3 Meeting obligations in the right to health

Providing adequate food is needed to protect the health of women and children. As indicated earlier in paragraph 2.4, poor families have insufficient access to health, but most of the citizens in developing countries live in rural areas. This makes poor people more susceptible to exposure to hazardous pesticides. Also addressed in paragraph 2.4, the World Bank reported on the lack of coordination between agriculture and health in developing countries. Thus, even though health-care facilities, goods, services and programmes may be available, developing countries fail to meet their obligation to ensure access to these health-care provisions. It can also be questioned whether the right to health's element of quality is sufficiently met, considering the notion that developing countries may lack expertise.

Regarding the State's obligation to respect the right to health, on the one hand, refraining from the use of hazardous pesticides may negatively affect the individual's full enjoyment of the right to health because of a possible rise in malnutrition incidences. This would be an act that would breach the State's obligation to respect the right to health. On the other hand, the same measure could increase the enjoyment of health because the risk for pesticide poisoning would be decreased. Regarding the State's obligation to protect the right to health, the same arguments can be used as those provided with respect to the obligation to protect the right to food. There is a breach of this obligation due to insufficient legal frameworks on hazardous pesticides and multi-or bilateral agreements should not interfere with the right to health.

The accessibility element entails safe resources which implies that the developing countries do not meet this obligation, because of contaminated food and water due to pesticide residues. Limiting

⁷⁹⁰ *ibid*

⁷⁹¹ *ibid* 23-25

occupational exposure to hazardous pesticides by ensuring sound management can improve the quality of natural resources and, subsequently, protect against non-occupational exposure in individuals as well, especially pregnant and lactating women and children. The protection against occupational exposure is required by the right to health and improving resources is part of the State's obligation to fulfil the right to food.

7.3 Additional remarks on accountability in developing countries

States have the primary responsibility to protect, promote and respect human rights of all individuals within their territories and jurisdiction. Even when corporations are the ones committing the violation, 'States are, ultimately, accountable for any violations of human rights'.⁷⁹² According to the OHCHR, States can be held to account at 'national, regional and international levels, and involve a variety of actors, such as the State itself, non-governmental organisations (NGOs), national human rights institutions or international treaty bodies'.⁷⁹³

Corporations should contribute to the State's obligation to protect human rights. Developing countries can hold the companies to account via litigation in domestic courts. With respect to international environmental law, some developing countries, including India and Malaysia, have adopted a variation on the Polluter Pays Principle: the Government Pays Principle.⁷⁹⁴ States and Local governments are jointly liable and provide compensation to victims of environmental pollution caused by private actors. When the local governments are able to identify the polluter, they can transfer the liability imposed on them to the actual polluter. The motivation for this variation on the principle is the fact that local governments tend to respond only when there is a threat of litigation. To prevent costs, this principle provides the local governments with monetary incentives to avoid environmental pollution and monitor private actors more effectively with available administrative and legal instruments.⁷⁹⁵

7.4 Integration of key findings

Because of the complexity of different concepts and legal frameworks, this paragraph provides a summary of the key findings of chapters 5, 6 and 7. Furthermore, the interdependence between the determined accountabilities is shown.

Selling hazardous pesticides and, subsequently, committing transboundary harm under international environmental law and human right violations under international human rights law raises

792 OHCHR and WHO, *Fact Sheet No. 31, The Right to Health* (UN, Geneva 2008) 30

793 *ibid* 31-39

794 Barbara Luppi, Francesco Parisi and Shruti Rajagopalan, 'The Rise and Fall of the Polluter-pays Principle in Developing Countries' (2012) 32 *IRLE* 142

795 *ibid* 136-137

accountability for the home State and the corporations BASF, Bayer Cropscience and Syngenta. Furthermore, allowing hazardous pesticides to enter, or be produced within, markets under the jurisdiction of the host State also raises accountability. Thus, accountability is divided among these actors.

Compliance with hard law such as the Rotterdam Convention or the Stockholm Convention does not contribute much to the discussion on accountability of the involved actors. Furthermore, competence divisions between the EU and its Member States adds another dimension of complexity to accountability in environmental law or human rights law. In environmental law, the EU has almost exclusive competence and is therefore responsible to ensure Member State compliance. In EU human rights law, Member States are accountable to the EU by ratifying the CFR. However, under international human rights law primarily the Member States are responsible to protect, respect and promote human rights. Yet, the EU should increase the consistency between their internal and external policies in order to meet the high ambitions and to deal with their double standards. The EU shows commitment to human rights by producing soft law for its Member States. Because it can be assumed that the EU has knowledge on corporation's extraterritorial conduct, the EU should monitor and control the extraterritorial conduct of the agrochemical companies that cannot only cause transboundary harm, and subsequently, affect the right to food and the right to health via their products but also because they have dominant legislative powers in developing countries. This is also true for the Member States. The Member States are regulated by international treaties and EU-law. As a Member State, Germany shows compliance with EU soft law and the international human rights obligation to regulate its companies in order to prevent extraterritorial human rights violations but should control and monitor their corporations' conduct. Compliance of these companies with both domestic legislation and non-binding guidelines can be ensured by holding the companies accountable. When this does not happen, the EU should undertake action to ensure that agrochemical companies are held to account and that developing countries are enabled to do this themselves. This is supported by Barrios' comment that 'although all countries are responsible to protect the environment from the negative effects of hazardous chemicals and pesticides, the North [developed countries] has a greater responsibility to do so, since it has more freedom to choose and better resources to do what is *right*'.⁷⁹⁶ This responsibility is also highlighted in UNCED's principle 14.

Corporations may show compliance with written norms by implementing requirements into their policies required by international recognised standards to which they are committed. They build credibility via transparency, responsiveness and public statements. However, the implemented due

796 Paula Barrios, 'The Rotterdam Convention on Hazardous Chemicals: A Meaningful Step Towards Environmental Protection?' (2004) 16 *GeoInt'lEnv'tlLRev* 701

diligence processes do not seem to be enough because human rights, such as the rights to food and health, are still violated. Also, compliance with labelling requirements may be claimed, but the ECCHR identified cases of non-compliance. Compliance with law does not ensure the safe use of products and the company should be aware of the negative effects on health and environment after their products have been sold. Especially regarding local populations and vulnerable groups, such as children, pregnant women and farmers. Responsible use of products cannot be assumed in developing countries. Corporations should respect human rights and contribute to the State's duty to protect human rights. Their legislative powers in developing countries and international standard setting should not result in conduct that conflicts with their claimed commitments to international recognised standards and values or with State duties.

Regarding the findings on litigation, two ways have been identified. One based on environmental law and one on human rights. In international human rights law, Member States and developing countries can be held responsible in the ECtHR. The EU can hold their Member States accountable in the CJEU. Individuals and States can claim their rights. Corporations can be held liable when civil liability regimes are incorporated. In environmental law, the EU and their Member States can, in theory, be held jointly responsible and liable for transboundary harm claimed by developing countries or third States in the ICJ. States that are not directly affected are able to hold developing countries, the EU and Member States to account in the ICJ but only to ensure compliance in the future. In practice, the ICJ has limited jurisdiction. This results in, among other problems, an accountability gap for the EU. Furthermore, joint responsibility is not often claimed. Moreover, the access to courts for victims in developing countries can be a challenge, which is elaborated upon in chapter 8. Developing countries lack the enforcement capacities or may even lack the willingness to pursue litigation. When the developing country does not initiate litigation against a corporation or pursue other ways to hold corporations accountable, or when the State itself breaches human rights obligations, the home States must act and hold their companies or the host State accountable in order to address the human rights violations. Again, the EU should take the lead in such situations. When home States do not do this, third States may seek the assurance that home States refrain from transboundary harm in the ICJ, but as mentioned earlier, the ICJ may have limited jurisdiction. Furthermore, developing countries and the EU and EU Member States should control and monitor the conduct of agrochemical corporations.

8 Discussion: strengthening corporate accountability

After clarifying the accountability of several involved actors, the current chapter aims at identifying possible methods to strengthen corporate accountability. Throughout the current study, several measures have been addressed, such as the establishment of legal systems, stimulating transparency, controlling and monitoring corporate conduct and creating national policies. The current chapter does not elaborate further on these measures, but focusses on State responsibility, capacity building and the challenges for corporations to respect human rights in developing countries. The last paragraph of this chapter provides a discussion on the current study, including strengths and limitations and recommendations for future research.

8.1 Effectiveness of attributing responsibilities to States

The current study shows that the failure of States to meet their due diligence obligations to prevent transboundary harm and human rights violation can result in the attribution of responsibility to States. This can strengthen corporate accountability when the concerned States take measures to regulate and control their corporations' actions. This paragraph explores whether this would be an effective method.

8.1.1 Challenges in considering hazardous pesticides a transboundary harm

As mentioned in subparagraph 5.2.2, transboundary harm can result in attribution of responsibility to the States. Fitzmaurice emphasises the flexibility for interpretation provided by the formulation of the ILC's articles on transboundary harm.⁷⁹⁷ This flexibility causes difficulties in effectively attributing responsibilities to States. Fitzmaurice argues that definitions of terms such as *environment* and *harm* vary among environmental treaties. With respect to the level of harm that is required to consider the harm as transboundary, the ruling in the *Trail Smelter* case sets the harm level at 'serious' and the ILC at 'significant'.⁷⁹⁸ The UNCED's Principle 14 does not give a level of harm with respect to human health, but with respect to environmental degradation, the harm level is 'severe'.⁷⁹⁹ Furthermore, Principle 2 only provides that States should not 'cause damage to the environment of other States'.⁸⁰⁰ Handl claims that the question of whether or not harm is significant is less challenging than argued by other critics. He states that 'when viewed in context, the qualifiers' *prima facie* ambiguity turns out to be

797 M Fitzmaurice, 'International Responsibility and Liability' in Bodansky, Brunnée and (eds), *The Oxford Handbook of International Environmental Law* (Oxford University Press, Oxford 2008) 22

798 *ibid* 5, 7

799 See paragraph 2.6 of the current study for the formulation of Principle 14.

800 UNGA, 'Report of the United Nations Conference on Environment and Development (Rio de Janeiro, 3-14 June 1992)' (1992) UN Doc A/CONF.151/26 principle 2

more apparent than real' and he provides several reasons for this.⁸⁰¹ Most importantly, the different definitions of the level of harm provide the same idea that harm has to present more than a minimum observable effect. It rather has to present 'a real detrimental effect' on, for example, human health or the environment of other States.⁸⁰² According to the ILC, 'a determination [of significance] has to be made in each specific case'.⁸⁰³

In the current study, the generalisation is made that hazardous pesticides are a significant harm with a risk of causing transboundary harm based on Handl's arguments. Anilofos, Atrazine, Paraquat and Phorate are classified as hazardous, ranging from slightly to extremely hazardous. Paraquat and Phorate are classified as extremely hazardous and may, therefore, pose a more significant risk for transboundary harm than Anilofos (moderately hazardous) or Atrazine (slightly hazardous). Furthermore, as mentioned in subparagraph 2.3.4, not every individual links their symptoms to pesticide exposure, chronic symptoms may not be noticed for a long time and the incidence of pesticide poisoning is underestimated. This may decrease the ability to provide convincing evidence when the case would be brought to court. Even though all four pesticides addressed in the current study are persistent and hazardous, deeming each of them separately a transboundary harm depends on the court's interpretation of significance and the required 'clear and convincing evidence' that links the 'serious consequences' to the respective pesticide.⁸⁰⁴ Therefore, the generalisation made in the current study may not hold for every hazardous pesticide and may vary per case.

The WHO states that the occurrence of pesticide poisoning is rare compared to the global pesticide use. This may decrease the perceived impact and significance of transboundary harm by hazardous pesticides. However, the provided data is outdated and underestimated. More importantly, the occurrences cannot be denied. The State's responsibility to prevent transboundary harm is, therefore, still relevant.

8.1.2 Joint responsibility and the EU accountability gap

The current study addressed the challenges in attributing responsibilities to the EU because of the limitations in ICJ jurisdiction. Because of these challenges, one could question the effectiveness of joint responsibility.

801 G Handl, 'Transboundary Impacts' in Bodansky, Brunnée and (eds), *The Oxford Handbook of International Environmental Law* (Oxford University Press, Oxford 2007) 535

802 *ibid.* See also UNGA, 'Report of the International Law Commission on the Work of its Fifty-third Session' (2001) UN Doc A/56/10 Commentary 4 on Article 2, 152

803 UNGA, 'Report of the International Law Commission on the Work of its Fifty-third Session' (2001) UN Doc A/56/10 Commentary 4 on Article 2, 152

804 See the ruling in *Trail Smelter Arbitration (US v Canada)* [1941] ICJ Rep 3 1907

When the attribution of joint responsibility is successful, this responsibility in meeting the State's and REIO's due diligence obligation to prevent transboundary harm is limited to the creation and application of an appropriate regulatory framework. Still, regulating corporation's international conduct can be seen as 'a step in the right direction' and, therefore, raising State responsibility can enhance corporate accountability.⁸⁰⁵ EU Regulations should include transparency, control and monitoring of corporation's international conduct by the Member States and access to remedies for victims in developing countries. When the EU's accession to the ECHR would include a joint responsibility clause as well, this can strengthen corporate accountability in the same way. Moreover, upon accession, the ECtHR would gain jurisdiction over the EU as a REIO which makes the attribution of joint responsibility more effective. Still, developing countries and individuals cannot claim their rights before the ECtHR.

Nollkaemper and Jacobs introduce the concept of *shared accountability*.⁸⁰⁶ This can be used in situations where international responsibility cannot be attributed to one or more actors, but where joint action does conflict with international norms.⁸⁰⁷

[Shared accountability] would allow us to include situations where quasi-judicial or political procedures might be used as the preferred process for supervising compliance by the actors involved in joint action, for instance under multilateral environmental agreements. This is particularly relevant for international organizations because of the near impossibility of finding a judicial institution to litigate claims against them. The term is also applicable to the responsibility of international organizations under their internal rules.⁸⁰⁸

With respect to hazardous pesticides, the shared accountability concept can be used to hold both the EU and its Member States to account in other fora than the ICJ. This could bridge the accountability gap for the EU in international environmental law. Holding the EU and its Member States to account based on transboundary harm, can stimulate the EU to take measures in order to meet their due diligence obligations.

As reasoned in the current study, accountability goes beyond legal obligations, indicating the concept of shared accountability is broader than joint responsibility and other measures, besides legal ones, can be implemented.

805 Nadia Bernaz, 'Enhancing Corporate Accountability for Human Rights Violations: Is Extraterritoriality the Magic Potion?' (2012) 117 JBusEthics

806 André Nollkaemper and Dov Jacobs, 'Shared Responsibility in International Law: a Conceptual Framework' (2012) 34 MichJIntL 369

807 ibid

808 ibid

8.1.3 Extraterritorial human rights obligations to strengthen corporate accountability

The notion of extraterritoriality has been addressed in the current study as well. Regulating extraterritorial conduct of corporations is not an obligation. Neither is it prohibited to do so. However, there are limitations to this so-called *extraterritorial jurisdiction* compared to the idea of *extraterritoriality*.

The general principle in international law is that States have jurisdiction over acts or omissions within their territories, acting outside of those territories is considered to be an exception and even in controversy with international law.⁸⁰⁹ The ILC describes three existing types of jurisdiction: prescriptive jurisdiction is understood as the State's authority to adopt legislation related to standards for conduct, adjudicative jurisdiction as the decisive authority of States on the rights of parties concerned and enforcement jurisdiction as the authority to ensure compliance with applicable legislation.⁸¹⁰ When a State exercises any of these jurisdiction types outside its own borders, this may be in conflict with the other State's jurisdiction.⁸¹¹ To exercise extraterritorial jurisdiction as a home State, the host State has to give its consent. Bernaz defines *extraterritorial jurisdiction* as 'the attempt by a state to exercise its prescriptive, adjudicative and/or enforcement jurisdiction over conduct occurring outside its own borders'.⁸¹² Extraterritorial jurisdiction provides liability mechanisms that apply to, for example, transnational corporations.⁸¹³ According to Bernaz, *extraterritoriality* is focussed on enhancing the corporate accountability and, therefore, the concept goes further than liability. Extraterritoriality includes 'any measure taken by the state aiming at enhancing corporate accountability for acts committed abroad'.⁸¹⁴ The Guiding Principles also address extraterritorial acts. These acts can be 'domestic measures with extraterritorial implications' and 'direct extraterritorial legislation and enforcement'.⁸¹⁵ Regarding the first act, domestic measures can be the requirement for the headquarters to report on their conduct abroad and the use of certain guidelines and standards for transnational conduct. An example of direct extraterritorial acts is the establishment of adjudicative jurisdiction with respect to corporate acts that occurred in other territories than the home State's.⁸¹⁶

809 Nadia Bernaz, 'Enhancing Corporate Accountability for Human Rights Violations: Is Extraterritoriality the Magic Potion?' (2012) 117 JBusEthics 496

810 UNGA, 'Report of the International Law Commission on the Work of its Fifty-eight Session' (2006) UN Doc A/61/10 517-518

811 Nadia Bernaz, 'Enhancing Corporate Accountability for Human Rights Violations: Is Extraterritoriality the Magic Potion?' (2012) 117 JBusEthics 495

812 *ibid* 495-496

813 *ibid* 496

814 *ibid*

815 OHCHR, 'Guiding Principles on Business and Human Rights: Implementing the United Nations 'Protect, Respect and Remedy' Framework' (2011) UN Doc A/HRC/17/31 Commentary on Principle 2, 4

816 *ibid*

Both kinds of extraterritorial acts are recommended approaches to strengthen corporate accountability because corporations are stimulated to change behaviour.⁸¹⁷

8.1.4 The effectiveness of pursuing litigation

Attributing State responsibility and using direct extraterritorial legislation and enforcement measures provide opportunities for pursuing litigation. The consequences that a State faces provides an incentive to take measures, such as setting standards for corporate conduct, to strengthen the corporate accountability in order to avoid this responsibility and liability in the future. Enhancing corporate accountability involves, besides setting standards, the changing of corporate behaviour. Bernaz argues that '[b]y definition, lawsuits are meant to be the exception and while arguably they may have an influence on behaviours, they do not adequately address systemic problems which have to do with how corporations work when operating abroad and not with relatively isolated incidents, however serious they may be'.⁸¹⁸ Moreover, lawsuits of human rights violations in developing countries caused by multinational corporations are rarely successful.⁸¹⁹ In addition, litigation in international environmental law is rare because environmental harm is often caused by private actors who are not under the jurisdiction of the ICJ.⁸²⁰

As pointed out in subparagraph 5.3.3, victims may not be able to collect enough evidence or unable to pay the costs for accessing courts. Other factors influence whether litigation is effective as well. Firstly, developing countries do not have the capacity to enforce. Secondly, developing countries, but also home States, may not be willing to do hold corporations to account because of the economic benefits brought to the State by the transnational companies.⁸²¹ Thirdly, corruption can hinder fair litigation.⁸²² Corruption is also addressed in the Human Rights Watch' report. The current legislation on pesticides is already weak in Brazil but is threatened because Brazilian politicians are farmers with much political power who exert pressure to weaken the existing pesticide laws.⁸²³ States can be an important

817 Nadia Bernaz, 'Enhancing Corporate Accountability for Human Rights Violations: Is Extraterritoriality the Magic Potion?' (2012) 117 JBusEthics 511

818 ibid 510

819 ibid 510

820 J Ellis, 'Has International Law Outgrown *Trail Smelter*?' in Bratspies and (eds), *Transboundary Harm in International Law Lessons: from the Trail Smelter Arbitration* (Cambridge University Press, Cambridge 2006) 56

821 Robert McCorquodale and Penelope Simons, 'Responsibility Beyond Borders: State Responsibility for Extraterritorial Violations by Corporations of International Human Rights Law' (2007) 70 ModLawRev 599-600

822 N Bernaz, 'State Obligations with Regard to the Extraterritorial Activities of Companies Domiciled on their Territories' in Buckley, Donald and (eds), *Towards Convergence in International Human Rights Law: Approaches of Regional and International Systems* (Koninklijke Brill NV, Leiden 2017) 437

823 Human Rights Watch, "'You Don't Want to Breathe Poison Anymore'" The Failing Response to Pesticide Drift in Brazil's Rural Communities' (2018) 27, 40

contributor to human rights violations.⁸²⁴ In addition, States do not always recognise the relevance of violations or they may recognise them as moral violations which does not result in remedies.⁸²⁵ Furthermore, victims may not link their symptoms to pesticide poisoning or may not be aware of their rights and therefore not pursue litigation. Victims may also experience structural or institutional barriers in accessing a court.⁸²⁶ Considering the above-mentioned challenges, changing the behaviour of EU-based agrochemical corporations via lawsuits does, therefore, not seem to be a desired solution.

Overall, State responsibility can be used to strengthen corporate accountability. This can be done via considering hazardous pesticides a transboundary harm. The State's due diligence obligation to prevent, via regulations, and punish extraterritorial corporate conduct should be included in the new negotiated binding framework for the Guiding Principles because this increases the possibility to raise State responsibility and corporate accountability.⁸²⁷ Because litigation and legislative measures have a limited effect, State accountability should be increased because this can subsequently result in strengthened corporate accountability. This can be done by adopting the notion of extraterritorial human rights obligations and applying the concept of shared accountability for the EU and its Member States.

8.2 Enhancing corporate accountability through capacity building in developing countries

More needs to be done than only establishing a suitable legal framework within the EU, its Member States or in developing countries in order to achieve change of corporate behaviour.⁸²⁸ In addition, the effects of the EU's regulations on human rights in developing countries should be taken into account as well. For example, regulations such as a ban on the export of hazardous pesticides in order to increase the coherence between internal and external policies can still negatively affect developing countries. It is of the utmost importance to develop cheaper and safer alternatives for developing countries. Without affordable alternatives, these countries continue to be dependent on hazardous pesticides. Therefore, the EU should contribute to the developing countries' capacity to fully realise both the human rights to food and health. For the short-term, it is crucial to increase the developing country's capacity to ensure the sound management of hazardous chemicals. The agrochemical corporations should ensure the sound management of their products. This can be achieved by, for

824 N Bernaz, *Business and Human Rights: History, Law and Policy - Bridging the Accountability Gap* (Human Rights and International Law, Routledge, London 2017) 9

825 Hilal Elver, 'The Challenges and Developments of the Right to Food in the 21st Century: Reflections of the United Nations Special Rapporteur on the Right to Food' (2016) 20 JILFA 27

826 ibid 27-28

827 N Bernaz, *Business and Human Rights: History, Law and Policy - Bridging the Accountability Gap* (Human Rights and International Law, Routledge, London 2017) 96

828 Nadia Bernaz, 'Enhancing Corporate Accountability for Human Rights Violations: Is Extraterritoriality the Magic Potion?' (2012) 117 JBusEthics

example, providing suitable clothing and education. Building capacity in developing countries, economically and technologically, will have the most beneficial and lasting contribution to protect human rights because it will decrease the dependence on toxic chemicals. Strengthening of the developing countries' legislative framework, the ability to enforce and increasing victim's access to courts enables the countries to put companies to account when their conduct violates human rights. Several initiatives have been adopted to increase the developing country's capacity.

In order to increase the State's enforcement capacities, an Optional Protocol to the ICESCR was adopted in 2008 and entered into force in May 2013.⁸²⁹ It provides voluntary procedures to build upon the State's national legal systems. The Optional Protocol provides an appeal mechanism for individuals and non-governmental actors. States Parties to the ICESCR are also enabled to address violations caused by other States. The CESCR provides a decision on the violations of human rights and obligations stipulated in the ICESCR in order to raise awareness but it does not have official enforcement instruments.⁸³⁰ The victim will not receive an effective remedy.⁸³¹

The developing country's ability to provide remedies for victims can be increased by focussing on local governments. Local governments are more able to address the needs of their population and to create local accountability mechanisms than governments at the State-level.⁸³² The Government Pays Principle is a way to realise compensation to victims and to increase the effective monitoring and controlling of business conduct. The enforcement and accountability mechanisms at the local level increases the ability of victims to claim their rights and hold corporations to account.

The UN Global Compact also contributes to capacity building because it emphasises the need for corporations to strengthen society. The agrochemical companies discussed in the current study do this by participation and funding local programs. At the society level, companies are able to deal with education, health access and also corruption at the local level. Subsidiaries should join the UN Global Compact as well, which strengthens corporate accountability based on the commitment to the principles. The EU should encourage their corporations and its subsidiaries to join the UN Global Compact.

829 Hilal Elver, 'The Challenges and Developments of the Right to Food in the 21st Century: Reflections of the United Nations Special Rapporteur on the Right to Food' (2016) 20 JILFA 26

830 *ibid* 26- 27

831 Robert McCorquodale and Penelope Simons, 'Responsibility Beyond Borders: State Responsibility for Extraterritorial Violations by Corporations of International Human Rights Law' (2007) 70 ModLawRev 600

832 World Bank, *Agriculture for Development* (World Development Report 2008, Quebecor World, Washington, DC 2008) 253-255

8.3 Challenges for corporations to contribute to the protection of human rights in developing countries

According to Van der Putten, Crijns and Hummels, 'in situations where a company is operating in a country where human rights violations are occurring, business managers and investors often put up strong resistance to NGO demands that the company plays an active role in improving human rights conditions'.⁸³³ Based on statements from corporations, two reasons are provided for this.⁸³⁴ Firstly, human rights protection is a matter between the government and its citizens and, therefore, is mainly political. Corporations would not be able to take responsibility for this when there is an insufficient legislative system in place to address the human rights standards for corporations.⁸³⁵ Secondly, developing countries do not have the same human rights priorities as developed countries because 'developing countries tend to assign a higher priority than rich countries to economic progress and stability rather than such topics as human rights and environmental protection'.⁸³⁶ This challenge is also identified in the current study. The western and UN opinion is that human rights should be regarded as a set of norms 'that should be seen as an absolute precondition for any possible government policy'.⁸³⁷ This is said to increase the difficulty for corporations to decide to which demands they should pay attention.⁸³⁸ However, EU-based agrochemical corporations should focus on the EU standards because otherwise their acts can be perceived as double standards.

Transnational corporations are important in decreasing the economic differences between developing and developed countries.⁸³⁹ The behaviour of these corporations is mainly based on the stakeholder's desired outcome. It is argued by Van der Putten, Crijns and Hummels that corporations are only able to act against human rights violations when this is in accordance with their interests, which also has to be in agreement with the controlling stakeholder's interest. Agrochemical corporations can exert political influence in developing countries. An accountability mechanism should be created to address the corporations conduct in these situations. Van der Putten, Crijns and Hummels state that such an accountability mechanism should consist of representatives of all affected interests, including individuals, by the corporation's political influence. However, such mechanisms do not exist. Overall, it can be stated that the corporations are not willing to pursue non-economic goals, unless the human

833 Harry Hummels, Gemma Crijns and Frans-Paul van der Putten, 'The ability of corporations to protect human rights in developing countries' in S Sullivan and M Robinson (eds), *Business and Human Rights: Dilemmas and Solutions* (Routledge, London 2003) 83

834 *ibid* 83

835 *ibid* 83-84

836 *ibid* 84

837 *ibid* 88

838 *ibid* 84

839 *ibid* 85

rights goals affect the corporate interest. The latter can be increased by, for example reputation damage, closely related to credibility.⁸⁴⁰

History shows that, after corporate scandals and attention raised by campaigns, the development of human rights policies within corporations and international organisations increased.⁸⁴¹ The fact that reputation loss can have serious consequences for the corporation's survival should contribute to the corporate's motivation to operate in agreement with their standards. Scheper supports the method of naming and shaming by commenting that 'the tendency of corporations [is] not to change in fundamental ways based on international norms, but rather to translate the very norms that have served to criticise them into their very own regimes of practice'.⁸⁴² This approach has been adopted by the CESCR's Optional Protocol as well that aims at raising awareness on human rights violations. The current study provides areas of criticism for the human rights policies of the agrochemical corporations. Criticism can be raised by the public and NGOs. This also happened in the discussed news articles. Since the current study emphasis on the role of the EU in enhancing corporate accountability, a method for naming and shaming is recommended and should be adopted by the EU.

8.4 Discussion on the current study

8.4.1 Contribution to science based on the recommendations proposed by the Special Rapporteur on the right to food

As mentioned in the current study's introduction, the Special Rapporteur on the right to food acknowledges the unclear accountability for businesses in the addressed issue of hazardous pesticide use, which has been become clear in the current study. In addition, the Special Rapporteur proposed three recommendations concerning the regulation of corporations. First, States are encouraged to 'regulate corporations to respect human rights and avoid environmental damage during the entire life cycle of pesticides'.⁸⁴³ Secondly, States have to 'impose penalties on companies that fabricate evidence and disseminate misinformation on the health and environmental risks of their products'.⁸⁴⁴ This recommendation is especially relevant with respect to Syngenta. Thirdly, the recommendation is made that corporations are monitored 'to ensure that labelling, safety precautions and training standards are respected'.⁸⁴⁵ The recommendations would indeed strengthen corporate accountability and

840 ibid 87-88

841 Christian Scheper, 'From Naming and Shaming to Knowing and Showing': Human Rights and the Power of Corporate Practice' (2015) 19 IJHR744

842 ibid 751

843 UNGA, 'Report of the Special Rapporteur on the Right to Food ' (2017) UN Doc A/HRC/34/48 paragraph 106 (l)

844 ibid paragraph 106 (m)

845 ibid paragraph 106 (n)

should be incorporated in the States' legal systems. However, the current study showed that developing countries may not have the capacities to implement or enforce these recommendations. Furthermore, the recommendations would increase the corporation's compliance with written norms but this has also been identified as insufficient. Therefore, the current study's proposed recommendations could contribute to corporate accountability as well.

8.4.2 Strengths of the study

The approach used to determine accountability is based on Bovens' concept of accountability as a virtue and as a mechanism. Including accountability as a virtue provides the possibility to determine the behaviour of actors and whether this is in accordance with standards.⁸⁴⁶ Accountability as a mechanism studies the control mechanisms in place for these actors. Bovens argues that these two approaches reinforce each other.⁸⁴⁷ Firstly because both focus on aspects such as 'transparency, openness, responsiveness, and responsibility' and, secondly, because 'accountability mechanisms are meaningless without a sense of virtue and, vice versa, there is no virtue without mechanisms'.⁸⁴⁸ The current study's approach to determine accountability provides a personal interpretation of the definition of accountability, especially with respect to accountability as a virtue, which is argued to contribute to disconnected academic literature on accountability.⁸⁴⁹ Nevertheless, the approach is based on Bovens' conceptualisation of accountability which is claimed to 'help solve at least some of the conceptual confusion, and may provide some foundation for comparative and cumulative analysis'.⁸⁵⁰ Therefore, the designed approach to determine accountability is deemed to be a strength of the current study. With respect to accountability as a virtue, the designed approach included questions that implemented Bovens' elements of transparency, responsibility and responsiveness. Integrating legitimacy claims as well provided the possibility for a more in-depth evaluation of the actor's behaviour compared with applicable standards, goals and values. This is another strength of the study.

8.4.3 Limitations of the current study

Several limitations of the current study should be noted. First, the current study was based on assumptions on compliance with written norms. Also, generalisations concerning developing countries had to be made because the study did not perform field work to investigate the impact of agrochemical conduct on human rights or the existing domestic legal systems on the use of hazardous pesticides.

846 Mark Bovens, 'Two Concepts of Accountability: Accountability as a Virtue and as a Mechanism' (2010) 33(2) WEP 961

847 *ibid* 691-692

848 *ibid* 962

849 *ibid* 946

850 *ibid* 948

The latter led to generalisations on the lack of such frameworks and the enforcement capacities. In addition, the current study does not elaborate on the corporate decision-making processes and the role that, for example, economic interests play, resulting in the assumption that corporations tend to act according to their economic interests. Secondly, the impact of hazardous pesticides on human health was based on the incidence of pesticide poisoning, the numbers used were outdated. Another limitation of the study is that it does not reflect the whole legislative framework concerning hazardous pesticides. Many more hard and soft law exist that influence the legal framework of pesticides, such as the Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and their Disposal. Soft law that are important, but not discussed, are the ILO Core Labour Standards, the ILO's Tri-Partite Declaration of Principles Concerning Multinational Enterprises and Social Policy, the ISO 26000 Guidance Standard on Social Responsibility and the OECD Guidelines for Multinational Enterprises. Moreover, the legal framework on foreign direct investment was not addressed either. A fourth limitation is that the current study may portray a western view on the matter, not sufficiently considering the human rights priorities of developing countries.

8.4.4 Recommendations for future research

The limitations of the current study lead to suggestions for recommendations for future research. It is recommended to determine the current incidence of pesticide poisoning and which products contribute to this. Further, it is recommended to investigate the domestic legal frameworks and compliance to international environmental and human rights law in developing countries.

Several other recommendations can be made as well, such as studying: the effectiveness of capacity building programs funded, established or supported by the EU; the role of risk assessment and science in corporate decision-making processes on hazardous pesticides; the involvement of ECAs in the agrochemical business; the effectiveness of NAPs on business and human rights to further improve the business accountability and conduct; determining the effectiveness of the Government Pays Principle on reducing corruption and increasing the provision of remedies for victims; and, last but not least, the feasibility of including REIO clause in the ICESCR as well.

Conclusion

The current study aimed at identifying ways to strengthen corporate accountability by clarifying the accountability of several actors. It can be concluded that, even though the developing countries have the primary obligation to protect human rights, the EU has to take the lead in protecting the right to food and the right to health in these countries against the use of hazardous pesticides of EU-based agrochemical corporations. This, because the EU has more resources to do so. However, agrochemical companies must be held accountable as well, based on the finding that their behaviour does not meet their goals and values. Furthermore, developing countries must be held accountable because they fail to meet their obligation to protect the human right to food and the human right to health within their jurisdiction. Strengthening corporate accountability can be done by raising State responsibility by considering hazardous pesticides a transboundary harm, increasing the accountability of the EU and its Member States by adopting the notion of extraterritoriality and shared accountability. Litigation is not an effective method to enhance corporate accountability. It is of the utmost importance to increase the developing country's capacities to enforce legislation on hazardous pesticides and, even more important, to hold corporation to account. Focussing on local governments and joining the UN Global Compact can be effective methods to combat corruption and provide remedies for victims. Furthermore, naming and shaming strategies have shown to effectively change corporate behaviour.

Bibliography

International Treaties

Convention on the Elimination of All Forms of Discrimination against Women (adopted 18 December 1979, entered into force 3 September 1981) 1249 UNTS 13 (CEDAW)

Convention on the Rights of Persons with Disabilities and Optional Protocol (adopted 13 December 2006, entered into force 3 May 2008) 2515 UNTS 3 (CRPD)

Convention on the Rights of the Child (adopted 20 November 1989, entered into force 2 September 1990) 1577 UNTS 3 (CRC)

European Convention on Human Rights (1950) ETS No.005 (ECHR)

General Agreement on Tariffs and Trade (adopted 30 October 1947, entered into force 1 January 1948) 64 UNTS 187 (GATT)

International Covenant on Civil and Political Rights (adopted 16 December 1966, entered into force 23 March 1976) 999 UNTS 171 (ICCPR)

International Covenant on Economic, Social and Cultural Rights (adopted 16 December 1966, entered into force 3 January 1978) 993 UNTS 3 (ICESCR)

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 (Rotterdam Convention)

Stockholm Convention on Persistent Organic Pollutants (POPs) as amended in 2009 (adopted 22 May 2004, entered into force 17 May 2004) 2256 UNTS 119 (Stockholm Convention)

Universal Declaration of Human Rights (adopted 10 December 1948) UNGA Resolution 217 (III) (UDHR)

WTO Agreement on the Application of Sanitary and Phytosanitary Measures (entered into force 1 January 1995) 1867 UNTS 493 (SPS Agreement)

EU legislation

Charter of Fundamental Rights of the European Union [2000] OJ C364/01

Consolidated version of the Treaty on the European Union [1993] OJ C326/13 (TEU)

Council Conclusions on Business and Human Rights [2016] 10254/16

Directive 2014/95/EU of the European Parliament and of The Council amending Directive 2013/34/EU as regards disclosure of Non-Financial and Diversity Information by Certain Large Undertakings and Groups [2014] OJ L330/1 L330/1

Regulation (EC) No 1107/2009 of the European Parliament and of The Council concerning the placing of plant protection products on the market and repealing Council Directives 79/117/EEC and 91/414/EEC [2011] OJ L309/1 L309

Regulation (EC) No 1271/2008 of the European Parliament and of The Council on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 [2010] OJ L353/1 L353

Regulation (EC) No 850/2004 of the European Parliament and of The Council on persistent organic pollutants and amending Directive 79/117/EEC [2004] OJ L158/7 L158

Regulation (EU) No 182/2011 of the European Parliament and of The Council laying down the rules and general principles concerning mechanisms for control by Member States of the Commission's exercise of implementing Powers [2011] OJ L55/13 L55

Regulation (EU) No 649/2012 of the European Parliament and of The Council concerning the export and import of hazardous chemicals [2014] OJ L 201/61 649/2012

Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade [2003] OJ L063/29

Stockholm Convention on Persistent Organic Pollutants [31 July 2006] OJ L209/29

EU Documents and reports

Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions - A Thematic Strategy on the Sustainable Use of Pesticides [2006] COM(2006) 373 final

EFSA, 'Reasoned Opinion on the Setting of a New Maximum Residue Level for Atrazine in Cereals' (2015) 13(6) EFSA Journal

EFSA, 'The 2013 European Union Report on Pesticide Residues in Food' (2015) 13(3) EFSA Journal

EPRS, *Briefing EU Policies Delivering for Citizens: Human Rights* (European Parliament, Brussels 2018)

European Commission and HR, 'Joint Communication to the European Parliament and The Council on Human Rights and Democracy at the Heart of Eu External Action-Towards a More Effective Approach' COM(2011) 886 final

European Commission and UNGA, *The European Union at the United Nations- Fact Sheet* (Brussels, Belgium 2018)

European Commission Communication to the European Parliament, The Council, the European Economic and Social Committee and the Committee of the Regions - A Renewed EU Strategy 2011-14 for Corporate Social Responsibility [2011] COM(2011) 681 final

European Commission, *EU Policy for a Sustainable Use of Pesticides - The Story Behind the Strategy* (OOPEC, Luxembourg 2007)

European Commission, 'Proposal for a Council Decision on the Position to be taken on behalf of the European Union at the Conference of the Parties as regards amendments of Annex III to the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade' COM(2019) 54 final

European Council and Council of Europe, 'Draft revised agreement on the accession of the European Union' 47+1(2013)008rev2

Scientific Committee on Plants Opinion on Specific Questions from the Commission Regarding the Evaluation of Paraquat in the Context of Council Directive 91/414/EEC [2002] SCP/PARAQ/002-Final

UN Documents

OHCHR, 'CESCR General Comment No.14: The Right to the Highest Attainable Standard of Health (Art.12)' (2000) UN Doc E/C.12/2000/4

UNWG, 'Elements for the Draft Legally Binding Instrument on Transnational Corporations and Other Business Enterprises with Respect to Human Rights' (2017) UN Doc A/HRC/RES/26/9

OHCHR, 'Guiding Principles on Business and Human Rights: Implementing the United Nations 'Protect, Respect and Remedy' Framework' (2011) UN Doc A/HRC/17/31

UNSD, 'United Nations Conference on Environment & Development, Rio de Janeiro, Brazil, 3 to 14 June 1992, Agenda 21' (1992) UN Doc A/CONF.151/26/Rev.I/Vol.I

UNEP and FAO, 'Composition of the PIC Regions' (2004) RC-1/2

UNHRC, 'Elaboration of an International Legally Binding Instrument on Transnational Corporations and Other Business Enterprises with Respect to Human Rights' (2014) UN Doc A/HRC/26/L.22/Rev.1

UNGA, 'Resolution Adopted by the General Assembly on 3 May 2011 - 65/276 Participation of the European Union in the Work of the United Nations' (2011) UN Doc A/RES/65/276

UNGA, 'Report of the Working Group on the Issue of Human Rights and Transnational Corporations and Other Business Enterprises' (2014) UN Doc A/HRC/26/25

UNGA, 'Report of the Special Rapporteur on the Right to Food ' (2017) UN Doc A/HRC/34/48

UNGA, 'Report of the International Law Commission - Sixty-third Session' (2011) UN Doc A/66/10

UNGA, 'Report of the International Law Commission on the Work of its Fifty-eight Session' (2006) UN Doc A/61/10 UNGA, 'Report of the United Nations Conference on Environment and Development (Rio de Janeiro, 3-14 June 1992)' (1992) UN Doc A/CONF.151/26

UNGA, 'Human Rights and Transnational Corporations and Other Business Enterprises' (2014) UN Doc A/HRC/RES/26/22

UNGA, 'Report of the Special Rapporteur on the Implications for Human Rights of the Environmentally Sound Management and Disposal of Hazardous Substances and Wastes' (2018) UN Doc A/73/45821

UNCHR, 'Report of the Special Representative of the Secretary-General on the Issue of Human Rights and Transnational Corporations and Other Business Enterprises, John Ruggie: Protect, Respect and Remedy: A Framework for Business and Human Rights' (2008) UN Doc A/HRC/8/5

UN, 'Transforming Our World: The 2030 Agenda for Sustainable Development' (2015) UN Doc A/RES/70/1

OHCHR, 'CESCR General Comment No.12: The Right to Adequate Food (Art.11)' (1999) UN Doc E/C.12/1999/5

UNGC, *Guide to Corporate Sustainability: Shaping a Sustainable Future* (UN Global Compact, New York 2014)

UNGC, *2017 United Nations Global Compact Progress Report: Business Solutions to Sustainable Development* (UNGC, New York 2017)

OHCHR and FAO, *Fact Sheet No. 34, The Right to Adequate Food* (UN, Geneva 2010)

OHCHR and WHO, *Fact Sheet No. 31, The Right to Health* (UN, Geneva 2008)

UNEP, FAO and WHO, *Childhood Pesticide Poisoning: Information for Advocacy and Action* (UNEP Chemicals, Chatelaine 2004)

Unicef, UNGC and Save the Children, *Children's Rights and Business Principles* (Unicef, New York 2009)

UNWG, *Guidance on National Action Plans on Business and Human Rights* (UN, Geneva 2014)

WHO, *Public Health Impact of Pesticides Used in Agriculture* (WHO, Geneva 1990)

WHO, *The WHO Recommended Classification of Pesticides by Hazard and Guidelines to Classification: 2009* (WHO, Geneva 2010)

Case Law

Case C-316/91, *Parliament v Council* [1994] Court of Auditors

Corfu Channel Case (UK v Albania) (Merits) [1949] ICJ Rep 4

Drozdz and Janousek v France and Spain (1992) 14 EHRR 754

Fadeyeva v Russia (2005) 45 EHRR 10

Opinion of Advocate General Jacobs - Case C-316/91 [1993]

Trail Smelter Arbitration (US v Canada) [1941] ICJ Rep 3

Books and Book sections

- Augenstein D, 'The Human Rights Dimension of Environmental Protection in EU External Relations After Lisbon' in E Morgera (ed), *The External Environmental Policy of the European Union: EU and International Law Perspectives* (Cambridge University Press, Cambridge 2012)
- Bernaz N, *Business and Human Rights: History, Law and Policy - Bridging the Accountability Gap* (Human Rights and International Law, Routledge, London 2017)
- Bernaz N, 'State Obligations with Regard to the Extraterritorial Activities of Companies Domiciled on their Territories' in CM Buckley, A Donald and P Leach (eds), *Towards Convergence in International Human Rights Law: Approaches of Regional and International Systems* (Koninklijke Brill NV, Leiden 2017)
- Buck M, 'The EU's Representation in Multilateral Environmental Negotiations After Lisbon' in E Morgera (ed), *The External Environmental Policy of the European Union: EU and International Law Perspectives* (Cambridge University Press, Cambridge 2012)
- Chandler G, 'The Evolution of the Business and Human Rights Debate' in R Sullivan and M Robinson (eds), *Business and Human Rights: Dilemmas and Solutions* (Routledge, London 2003)
- Cremona M, 'Coherence and EU External Environmental Policy' in E Morgera (ed), *The External Policy of the European Union: EU and International Law Perspectives* (Cambridge University Press, Cambridge 2012)
- Ellis J, 'Has International Law Outgrown *Trail Smelter*?' in RM Bratspies and R Miller (eds), *Transboundary Harm in International Law Lessons: from the Trail Smelter Arbitration* (Cambridge University Press, Cambridge 2006)
- Evans T, *US Hegemony and the Project of Universal Human Rights* (Southampton Studies in International Policy, Palgrave Macmillan London 1996)
- Fitzmaurice M, 'International Responsibility and Liability' in D Bodansky, J Brunnée and E Hey (eds), *The Oxford Handbook of International Environmental Law* (Oxford University Press, Oxford 2008)
- Fitzmaurice M, 'The Corfu Channel Case and the Development of International Law' in N Ando and others, *Liber Amicorum Judge Shigeru Oda* (Kluwer Law International, 2002)
- Handl G, 'Transboundary Impacts' in D Bodansky, J Brunnée and E Hey (eds), *The Oxford Handbook of International Environmental Law* (Oxford University Press, Oxford 2007)
- Hummels H, Crijns G and Van der Putten F, 'The ability of corporations to protect human rights in developing countries' in S Sullivan and M Robinson (eds), *Business and Human Rights: Dilemmas and Solutions* (Routledge, London 2003)
- Lelieveldt H and Princen S, *The Politics of the European Union* (2 edn Cambridge University Press, Cambridge 2015)

- Matthews GA, *Pesticides: Health, Safety and the Environment* (2 edn John Wiley & Sons, Hoboken, New Jersey 2016)
- Nollkaemper A, 'Issues of Shared Responsibility Before the International Court of Justice' in E Rieter and H de Waele (eds), *Evolving principles of international law: studies in honour of Karel C Wellens* (Martinus Nijhoff Publishers, Leiden-Boston 2011)
- Nollkaemper A, 'Joint Responsibility Between the EU and Member States for Non-performance of Obligations Under Multilateral Environmental Agreements' in E Morgera (ed), *The External Environmental Policy of the European Union: EU and International Law Perspectives* (Cambridge University Press, Cambridge 2012)
- Read JE, 'The *Trail Smelter* Dispute [Abridged]' in RM Bratspies and R Miller (eds), *Transboundary Harm in International Law: Lessons from the Trail Smelter Arbitration* (Cambridge University Press, Cambridge 2006)
- Sullivan R, 'Introduction' in R Sullivan and M Robinson (eds), *Business and Human Rights: Dilemmas and Solutions* (Routledge, London 2003)
- Trebilcock MJ, *Advanced Introduction to International Trade Law* (Elgar Advanced Introduction Series, Edward Elgar Publishing Ltd, 2015)
- Van der Meulen B, *EU Food Law Handbook* (European Institute for Food Law Series, Volume 9, Wageningen Academic Publishers, Wageningen 2014)
- Vogler J, 'The External Environmental Policy of the European Union' in OS Stokke and OB Thommessen (eds), *Yearbook of International Co-operation on Environment and Development 2003/2004* (Earthscan Publications, London 2003)

Journal articles

- Assis CRD and others, 'Erythrocyte Acetylcholinesterase as Biomarker of Pesticide Exposure: New and Forgotten Insights' (2018) 25 *EnvironSciPollutRes* 1-13
- Augenstein D, 'Negotiating the Hard/Soft Law Divide in Business and Human Rights: The Implementation of the UNGPs in the European Union' (2018) 9 *GlobPolicy* 254-263
- Bakırcı GT and others, 'Pesticide Residues in Fruits and Vegetables from the Aegean Region, Turkey' (2014) 160 *FoodChem* 379-392
- Barrios P, 'The Rotterdam Convention on Hazardous Chemicals: A Meaningful Step Towards Environmental Protection?' (2004) 16 *GeoIntlEnvtlLRev* 679-762
- Bernaz N, 'Enhancing Corporate Accountability for Human Rights Violations: Is Extraterritoriality the Magic Potion?' (2012) 117 *JBusEthics* 493-511
- Black J, 'Constructing and Contesting Legitimacy and Accountability in Polycentric Regulatory Regimes' (2008) 2 *RegulGov* 137-164

Bovens M, 'Two Concepts of Accountability: Accountability as a Virtue and as a Mechanism' (2010) 33(2) WEP 28-49

Caron DD, 'The ILC Articles on State Responsibility: the Paradoxical Relationship between Form and Authority' (2002) 96 AJIL 857-873

Cremona M, 'External Relations of the EU and the Member States: Competence, Mixed Agreements, International Responsibility, and Effects of International Law' (2006) 22 EJLS 1-40

Damalas CA and Eleftherohorinos IG, 'Pesticide Exposure, Safety Issues, and Risk Assessment Indicators' (2011) 8 IntJEnvironResPublicHealth 1402-1419

Damalas CA, 'Understanding Benefits and Risks of Pesticide Use' (2009) 4 SRE 945-949

Davitti D, 'Refining the Protect, Respect and Remedy Framework for Business and Human Rights and its Guiding Principles' (2016) 16 HRLRev 55-75

Elserougy S and others, 'Organochlorine Pesticide Residues in Biological Compartments of Healthy Mothers' (2013) 29 ToxicolIndHealth 441-448

Elver H, 'The Challenges and Developments of the Right to Food in the 21st Century: Reflections of the United Nations Special Rapporteur on the Right to Food' (2016) 20 JILFA 1

Emmert F and Carney CP, 'The European Union Charter of Fundamental Rights vs. The Council of Europe Convention on Human Rights and Fundamental Freedoms-A Comparison' (2017) 40 FordhamIntLJ 1047-1173

Garcia FP and others, 'Pesticides: Classification, Uses and Toxicity. Measures of Exposure and Genotoxic Risks' (2012) 1 JREST 279-293

Handford CE, Elliott CT and Campbell K, 'A Review of the Global Pesticide Legislation and the Scale of Challenge in Reaching the Global Harmonization of Food Safety Standards' (2015) 11 IEAM 525-536

Kahl VFS and others, 'Chronic Occupational Exposure Endured by Tobacco Farmers from Brazil and Association with DNA Damage' (2018) 33 Mutagenesis 119-128

Khan DA and others, 'Adverse Effects of Pesticides Residues on Biochemical Markers in Pakistani Tobacco Farmers' (2008) 1 IntJClinExpMed 274-282

Kim KH, Kabir E and Jahan SA, 'Exposure to Pesticides and the Associated Human Health Effects' (2017) 575 SciTotalEnviron 525-535

Köhler HR and Triebkorn R, 'Wildlife Ecotoxicology of Pesticides: Can We Track Effects to the Population Level and Beyond?' (2013) 341 Science 759-765

Kummer K, 'Prior Informed Consent for Chemicals in International Trade: The 1998 Rotterdam Convention' (1999) 8 RevEurCompIntEnvironLaw 323-329

Luppi B, Parisi F and Rajagopalan R, 'The Rise and Fall of the Polluter-pays Principle in Developing Countries' (2012) 32 IRLE 135-144

McCorquodale R and Simons P, 'Responsibility Beyond Borders: State Responsibility for Extraterritorial Violations by Corporations of International Human Rights Law' (2007) 70 *ModLawRev* 598-625

McCorquodale R, 'Corporate Social Responsibility and International Human Rights Law' (2009) 87 *JBusEthics* 385-400

Mishra K and Sharma RC, 'Assessment of Organochlorine Pesticides in Human Milk and Risk Exposure to Infants from North-East India' (2011) 409 *SciTotalEnviron* 4939-4949

Nollkaemper A and Jacobs D, 'Shared Responsibility in International Law: a Conceptual Framework' (2012) 34 *MichJIntL* 359-438

Payán-Rentería R and others, 'Effect of Chronic Pesticide Exposure in Farm Workers of a Mexico Community' (2012) 67 *ArchEnvironOccupHealth* 22-30

Porto MF and others, 'Double Standards and the International Trade of Pesticides: The Brazilian Case' (2010) 16 *IJOEH* 24-35

Scheper C, 'From Naming and Shaming to Knowing and Showing': Human Rights and the Power of Corporate Practice' (2015) 19 *IJHR* 737-756

Skevas T, Oude Lansink AGJM and Stefanou SE, 'Designing the Emerging EU Pesticide Policy: A Literature Review' (2013) 64 *NJAS* 95-103

Sklair L, 'The Transnational Capitalist Class and Global Politics: Deconstructing the Corporate-state Connection' (2002) 23 *IntPoliticalSciRev* 159-174

Svensson M and others, 'Migrant Agricultural Workers and Their Socio-economic, Occupational and Health Conditions—a Literature Review (SSRN Working Paper Series)' (2013) *SSRN* 1-35

Thompson LA and others, 'Organochlorine Pesticide Contamination of Foods in Africa: Incidence and Public Health Significance' (2017) 79 *JVMS* 16-214

Thundiyil JG and others, 'Acute Pesticide Poisoning: a Proposed Classification Tool' (2008) 86 *BullWorldHealthOrgan* 205-209

Tomer V, Sangha JK and Ramya HG, 'Pesticide: an Appraisal on Human Health Implications' (2015) 85 *ProcNatlAcadSciIndiaB* 451-463

Tordoir WF and Sittert NJ, 'Organochlorines' (1994) 91 *Toxicology* 51-57

Vlaardingerboek A and others, 'An Inventory and Assessment of Options for Reducing Emissions: Atrazine' (2009) 3 *SOCOPSE* 1-34

Wilmshurst TD and Frost GR, 'Corporate Environmental Reporting: a Test of Legitimacy Theory' (2000) 13 *AccountAuditingAccountJ* 10-26

Other documents and reports

BASF, BASF Group's Position on Human Rights (BASF SE, Ludwigshafen 2011)

DEA and FDFA, Switzerland and the European Union (DEA, Bern 2016)

FFO, National Action Plan - Implementation of the UN Guiding Principles on Business and Human Rights 2016-2020 (FFO, Main 2017)

Human Rights Watch, "'You Don't Want to Breathe Poison Anymore" The Failing Response to Pesticide Drift in Brazil's Rural Communities' (2018)

Human Rights Watch, Interview: Drowning in Pesticides - Brazil's Industrial Farmers Spray Dangerous Chemicals Near Schools, Villages (Human Rights Watch, New York 2018)

IDLO, Realizing the Right to Food: Legal Strategies and Approach (IDLO, Rome 2014)

International Organization of Employers, International Chamber of Commerce and Business and Industry Advisory Committee to the OECD, Business and Human Rights: The Role of Government in Weak Governance Zones (Business Proposals for Effective Ways of Addressing Dilemma Situations in Weak Governance Zones, IOE, Geneva 2006)

PAN Asia Pacific, Communities in Peril: Global report on health impacts of pesticide use in agriculture (Red Leaf Printing Press, Philippines 2010)

PAN Germany, Highly Hazardous Pesticides from BASF, Bayer, and Syngenta! Results of an International Investigation (PAN Germany, Hamburg 2011)

PAN Germany, Pesticides and Health Hazards: Facts and Figures (PAN Germany, Hamburg 2012)

PAN International, PAN International List of Highly Hazardous Pesticides (PAN, Hamburg 2018)

Syngenta, Our Commitment to Integrity and Responsibility: the Syngenta Code of Conduct (Syngenta, Basel 2018)

World Bank, Agriculture for Development (World Development Report 2008, Quebecor World, Washington, DC 2008)

Electronic materials

Balensiefer T, 'Sustainability Ratings and Rankings - Oekom' (BASF, 2019)

<<https://www.basf.com/global/en/investors/sustainable-investments/sustainability-ratings-and-rankings.html>> accessed 14 February 2019

BASF, 'Nonfinancial statement (NFS) in accordance with sections 315b and 315c of the German Commercial Code (HGB)' (2018) <<https://report.basf.com/2017/en/managements-report/our-strategy/integration-of-sustainability/nonfinancial-statement.html>> accessed 14 February 2019

BASF, 'We create chemistry for a sustainable future ' <<https://www.basf.com/global/en/who-we-are/sustainability.html>> accessed 14 February 2019

Bayer CropScience AG, 'Bayer CropScience Response to Ad Hoc Monitoring Report' (Open Letter to the ECCHR)
 <https://www.ecchr.eu/fileadmin/Juristische_Dokumente/Ad_Hoc_Monitoring_Report_Bayer_CropScience_Position-17102015.pdf> accessed 14 February 2019

Bayer Global, 'Environmental Protection' (Bayer, last updated 2 August 2018)
 <<https://www.bayer.com/en/environmental-protection.aspx>> accessed 14 February 2019

Bayer Global, 'Help for the Weak and Disadvantaged' (last updated 14 December 2018)
 <<https://www.bayer.com/en/health-promotion-and-social-needs.aspx>> accessed 14 February 2019

Bayer Global, 'Our commitment to Sustainability' (Bayer, last updated 1 August 2018)
 <<https://www.bayer.com/en/sustainability.aspx>> accessed 14 February 2019

Bayer Global, 'Relevant Positions: Bayer Human Rights Position' (Bayer last updated 14 December 2018) <<https://www.bayer.com/en/bayer-human-rights-position.aspx>> accessed 14 February 2019

Bayer Global, 'Working on Behalf of a Better Life' (Bayer) <<https://www.bayer.com/en/social-responsibility.aspx>> accessed 14 February 2019

Bayer, 'Transparency in Crop Science' (Bayer) <<https://www.cropscience-transparency.bayer.com/>> accessed 14 February 2019

Bock K, 'Letter from the Chairman of the Board of Executive Directors' (2018)
 <<http://report.basf.com/2017/en/shareholders/letter-from-the-chairman.html>> accessed 14 February 2019

Business & Human Rights Resource Centre, 'Reflections on the Zero Draft' (Business & Human Rights Resource Centre, 2018) <<https://www.business-humanrights.org/en/about-us/blog/debate-the-treaty/reflections-on-the-zero-draft>> accessed 3 March 2019

Butler LJ, *The European Union and International Human Rights Law* (Regional Office for Europe of the OHCHR, Brussels)
 <https://europe.ohchr.org/Documents/Publications/EU_and_International_Law.pdf> accessed 9 November 2018

Council of Europe; and European Court of Human Rights, 'European Convention'
 <<https://www.echr.coe.int/Pages/home.aspx?p=basictexts&c>> accessed 1 January 2019

ECCHR and others, *Ad Hoc Monitoring Report - Claims of (Non-)adherence by Bayer CropScience and Syngenta to the Code of Conduct Provisions on Labeling, Personal Protective Equipment, Training and Monitoring* (2015)
 <https://www.ecchr.eu/fileadmin/Juristische_Dokumente/Ad_Hoc_Monitoring_Report_Final.pdf> accessed 20 February 2019

ECCHR, 'Case Information' (Case Report on Bayer CropScience)

https://www.ecchr.eu/fileadmin/Fallbeschreibungen/CaseReport_Bayer_Nativo_India_Germany_20161019.pdf> accessed 20 February 2019

ECHA, 'Substance information - Phorate' <<https://echa.europa.eu/substance-information/-/substanceinfo/100.005.503>> accessed 15 February 2019

ECHA, 'Substance information - S-[2-[(4-chlorophenyl)(isopropyl)amino]-2-oxoethyl] O,O-dimethyl dithiophosphate' <<https://echa.europa.eu/substance-information/-/substanceinfo/100.058.851>> accessed 15 February 2019

Equality and Human Rights Commission, 'What is the Charter of the Fundamental Rights of the European Union?' (last updated 3 October 2016)

<<https://www.equalityhumanrights.com/en/what-are-human-rights/how-are-your-rights-protected/what-charter-fundamental-rights-european-union>> accessed 24 December 2018

European Commission, 'EU Pesticide Databas - Phorate ' (last updated 7 April 2016)

<<http://ec.europa.eu/food/plant/pesticides/eu-pesticides-database/public/?event=activesubstance.detail&language=EN&selectedID=1699>> accessed 25 February 2018

European Commission, 'EU Pesticide Database - Anilofos' (last updated 4 April 2016)

<<http://ec.europa.eu/food/plant/pesticides/eu-pesticides-database/public/?event=activesubstance.detail&language=EN&selectedID=963>> accessed 25 February 2019

European Commission, 'EU Pesticide Database - Atrazine' (last updated 4 April 2016)

<<http://ec.europa.eu/food/plant/pesticides/eu-pesticides-database/public/?event=activesubstance.detail&language=EN&selectedID=972>> accessed 25 February 2019

European Commission, 'EU Pesticide Database -Paraquat' (last updated 4 April 2016)

<<http://ec.europa.eu/food/plant/pesticides/eu-pesticides-database/public/?event=activesubstance.detail&language=EN&selectedID=1669>> accessed 25 February 2019

European Commission, 'EU ratifies UN Convention on Disability Rights' (Press Release)

<http://europa.eu/rapid/press-release_IP-11-4_en.htm> accessed 20 February 2019

European Parliament, 'Answer to a written question - Atrazine exports to third countries - E-

004368/2017' (2017) <<http://www.europarl.europa.eu/sides/getAllAnswers.do?reference=E-2017-004368&language=EN>> accessed 5 October 2018

FAO, 'FAOSTAT- Pesticide Use' (FAO, 2018) <<http://www.fao.org/faostat/en/#data/RP/visualize>> accessed 5 January 2019

Gaberell L, 'UK Exports Banned Pesticide to Developing Countries' The Journal of Pesticide Action Network UK Public News (UK Date) <https://www.publiceye.ch/en/news/uk_exports_banned_pesticide_to_developing_countries/> accessed 5 October 2018

Gross AG, 'Brazil's Pesticide Poisoning Problem Poses Global Dilemma, Say Critics' Mongabay Amazon Agribusiness (Cerrado Date) <<https://news.mongabay.com/2018/08/brazils-pesticide-poisoning-problem-poses-global-dilemma-say-critics/>> accessed 5 October 2018

Institutional Shareholder Services Inc. (ISS ESG), 'Industry Focus Chemicals' (2019) retrieved from <<https://www.issgovernance.com/library/iss-esg-industry-focus-chemicals/>> accessed 20 February 2019

International Cooperation and Development, 'The 2030 Agenda for Sustainable Development' (European Commission) <https://ec.europa.eu/europeaid/policies/european-development-policy/2030-agenda-sustainable-development_en> accessed 17 February 2019

OHCHR, 'Status of Ratification Interactive Dashboard' <<http://indicators.ohchr.org/>> accessed 13 February 2019

OHCHR, 'View of the ratification status by country or by treaty - Ratification Status for Switzerland' <https://tbinternet.ohchr.org/_layouts/TreatyBodyExternal/Treaty.aspx?CountryID=169&Lang=EN> accessed 14 February 2019

PAN North America, 'The Syngenta Corporation & Atrazine: The Cost to the Land, People & Democracy' (2010) <<http://www.panna.org/sites/default/files/AtrazineReportBig2010.pdf>> accessed 5 December 2018

Secretariat of the Rotterdam Convention, 'Overview' (Secretariat of the Rotterdam Convention, 2010) <<http://www.pic.int/TheConvention/Overview/tabid/1044/language/en-US/Default.aspx>> accessed 13 November 2018

Secretariat of the Rotterdam Convention, 'Status of ratifications' <<http://www.pic.int/Countries/Statusofratifications/tabid/1072/language/en-US/Default.aspx>> accessed 22 March 2019

Secretariat of the Stockholm Convention, 'Implementation Pesticide POPs - Overview' (2016) <<http://www.pops.int/Implementation/PesticidePOPs/tabid/5359/Default.aspx>> accessed 16 February 2019

Secretariat of the Stockholm Convention, 'Status of ratification' <<http://chm.pops.int/Countries/StatusofRatifications/PartiesandSignatoires/tabid/4500/Default.aspx>> accessed 22 March 2019

Syngenta Global, 'Help People Stay Safe' <<https://www.syngenta.com/what-we-do/the-good-growth-plan/help-people-stay-safe>> accessed 14 February 2019

Syngenta Global, 'Human Rights' (Syngenta Global) <<https://www.syngenta.com/how-we-do-it/corporate-responsibility/human-rights>> accessed 14 February 2019

Syngenta Global, 'Paraquat Poisoning' (Syngenta Global) <<https://www.syngenta.com/what-we-do/crops-and-products/paraquat-safety>> accessed 14 February 2019

Syngenta Global, 'Solutions- FAQ' (Syngenta Global) <<https://www.syngenta.com/how-we-do-it/corporate-responsibility/frequently-asked-questions/solutions-faq>> accessed 14 February 2019

Syngenta United States, 'Atrazine Herbicide' (Syngenta United States) <<http://www.atrazine.com/atramain.aspx>> accessed 14 February 2019

UN DESA, 'United Nations Conference on Environment and Development (UNCED), Earth Summit' <<https://sustainabledevelopment.un.org/milestones/unced>> accessed 5 November 2018

UNEP and FAO, 'Pesticides' (Rotterdam Convention Secretariat, 2010) <<http://www.pic.int/Implementation/Pesticides/tabid/1359/language/en-US/Default.aspx>> accessed 28 January 2019

UNEP and FAO, 'Status of ratifications' (Rotterdam Convention Secretariat) <<http://www.pic.int/Countries/Statusofratifications/tabid/1072/language/en-US/Default.aspx#enote1>> accessed 28 January 2019

UNGC, 'See Who's Involved - Our Participants' (United Nations) <https://www.unglobalcompact.org/what-is-gc/participants/search?utf8=%E2%9C%93&search%5Bkeywords%5D=&button=&search%5Bper_page%5D=50&search%5Bsort_field%5D=&search%5Bsort_direction%5D=asc> accessed 27 January 2019

UNGC, 'The Ten Principles of the UN Global Compact' <<https://www.unglobalcompact.org/what-is-gc/mission/principles>> accessed 26 December 2018

United Nation's Sustainable Development Goals Knowledge Platform, 'Agenda 21' <<https://sustainabledevelopment.un.org/milestones/unced/agenda21>> accessed 4 November 2018

WTO, 'The WTO' <https://www.wto.org/english/thewto_e/thewto_e.htm> accessed 01 January 2019

Appendix

Table A1. Ratification status of the Rotterdam and Stockholm Conventions by developing countries

	Ratification status MEAs (S=Signature; R=Ratification; NA = No Action)	
<i>Country</i>	Rotterdam Convention ⁸⁵¹	Stockholm Convention ⁸⁵²
Brazil	S: 1998; R: 2004	S: 2001; R: 2004
Colombia	S: 1998; R: 2008	S: 2001; R: 2008
Guatemala	S: NA; R: 2010	S: 2002; R: 2008
India	S: NA; R: 2005	S: 2002; R: 2006
Korea	S: 1999; R: 2003	S: 2001; R: 2007
Malaysia	S: NA; R: 2002	S: 2002; R: NA
Panama	S: 1998; R: 2000	S: 2001; R: 2003
Peru	S: 1978; R: 2005	S: 2001; R: 2005

Table A2. Ratification status of international human rights treaties by developing countries

	Ratification status human rights treaties (S=Signature; R=Ratification; NA = No Action) ⁸⁵³			
<i>Country</i>	ICCPR	ICESCR	CEDAW	CRC
Brazil	S: NA; R: 1992	S: NA; R: 1992	S: 1981; R: 1984	S: 1990; R: 1990
Colombia	S: 1966; R: 1969	S: 1966; R: 1969	S: 1980; R: 1982	S: 1990; R: 1991
Guatemala	S: NA; R: 1992	S: NA; R: 1988	S: 1981; R: 1982	S: 1990; R: 1990
India	S: NA; R: 1979	S: NA; R: 1979	S: 1980; R: 1993	S: NA; R: 1992
Korea	S: NA; R: 1981	S: NA; R: 1981	S: NA; R: 2001	S: NA; R: 1990
Malaysia	S: NA; R: NA	S: NA; R: NA	S: NA; R: 1995	S: NA; R: 1995
Panama	S: 1976; R: 1977	S: 1976; R: 1977	S: 1980; R: 1981	S: 1990; R: 1990
Peru	S: 1977; R: 1978	S: 1977; R: 1978	S: 1981; R: 1982	S: 1990; R: 1990

851 Secretariat of the Rotterdam Convention, 'Status of ratifications' <<http://www.pic.int/Countries/Statusofratifications/tabid/1072/language/en-US/Default.aspx>> accessed 22 March 2019

852 Secretariat of the Stockholm Convention, 'Status of ratification' <<http://chm.pops.int/Countries/StatusofRatifications/PartiesandSignatoires/tabid/4500/Default.aspx>> accessed 22 March 2019

853 OHCHR, 'Status of Ratification Interactive Dashboard' <<http://indicators.ohchr.org/>> accessed 13 February 2019