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Alexandra Patricia Engel

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# Plastic Pollution and the Right to a Clean and Healthy Environment

A Case Study of People Living  
in Squatter Settlements Along the Riversides  
of Kathmandu City, Nepal.

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APMA, Master's Programme in Human Rights  
and Democratisation in Asia Pacific

Alexandra Patricia Engel

# Plastic Pollution and the Right to a Clean and Healthy Environment

A Case Study of People Living in Squatter Settlements  
Along the Riversides of Kathmandu City, Nepal.

# Foreword

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- Nukiry, Laila, *The Effect of Parental Mediation Strategies on the Autonomy of Opinion Formation of Adolescents in Beirut: A Comparison Between Secular and Non-Secular Schools*. Supervisor: Carol Al-Sharabati, Saint Joseph University, Arab Master's Programme in Democracy and Human Rights (ARMA), coordinated by Saint Joseph University (Lebanon).

- Salakhunova, Alina, *Decentralization and Renewable Energy Policy in Central Asia: Exploring the Role of Local Governance and Community Participation*. Supervisor: Sergey Sayapin, KIMEP University (Almaty, Kazakhstan). The Master of Liberal Arts in Human Rights and Sustainability (MAHRS - GC Central Asia), coordinated by the OSCE Academy in Bishkek.
  
- Torres Cuenca, Laura, *El camino del retorno. Experiencias de mujeres rurales víctimas del conflicto armado en el proceso burocrático de ingreso al Registro de Tierras Despojadas y Abandonadas Forzosamente para el departamento del Cesar, Colombia*. Supervisor: Ezequiel Fernández Bravo, Universidad Nacional de San Martín - Consejo Nacional de Investigaciones Científicas y Técnicas (UNASAM-CONICET). Master's Programme in Human Rights and Democratisation in Latin America and the Caribbean (LATMA), coordinated by National University of San Martin (Argentina).

# Biography

Alexandra Engel holds a Bachelor's degree in Asian Studies and Management, with a focus on South and Southeast Asia, from the University of Applied Sciences in Constance, Germany. She completed her Master's degree in Human Rights and Democratisation at Mahidol University in Thailand, as part of the Global Campus of Human Rights program, where she undertook academic studies in both Thailand and Nepal. During her studies, she gained professional experience through two internships with the German Agency for International Cooperation GmbH (GIZ), one in Eschborn and another in Bangkok, focusing on development cooperation between Germany and Southeast Asia. Currently, she is working at AHK Indonesia, the German-Indonesian Chamber of Commerce and Industry in Jakarta. Her academic and professional interests lie at the intersection of environmental issues and human rights, along with the role of business in advancing human rights—reflecting her ongoing efforts to promote ethical and sustainable practices in both development and corporate sectors.

# Abstract

Our planet is facing a global plastics crisis. Every living species throughout every ecosystem on the planet is detrimentally affected by plastic pollution. However, people in vulnerable situations and living in poverty are disproportionately affected by plastic waste and its implication on their lives and full enjoyment of human rights. Although Nepal has strict laws regarding plastic and environmental protection, their implementation is lacking. In addition, the waste management system is weak, and there is a lack of general awareness. Throughout Kathmandu City, plastics leak into rivers or are dumped on their banks, especially affecting people living in these areas. In this context, this research project seeks to study the right to a clean and healthy environment of the people living in squatter settlements along the riversides of Kathmandu City with a focus on environmental justice. Furthermore, this research identifies policy and practical measures of the government of Nepal regarding plastic pollution and their applicability and efficiency. Through qualitative tools such as in-depth and key informant interviews with people living in squatter settlements, as well as different stakeholders such as lawyers, judges, scholars, and government officials, this research draws out a holistic approach to the general discussion of plastic pollution and the right to a clean and healthy environment by including different perspectives. Therefore, this study contributes significantly, on the one hand, to examine the situation of the squatters of Kathmandu City (rights-holders) and, on the other hand, to identify the obligations and needed assistance (capacity and resources) of the government (duty bearer) to fulfil their commitments in regard to safeguarding the right to a clean and healthy environment as guaranteed by the Constitution of Nepal.

**Keywords:** *environmental rights / plastic pollution / squatter settlements / environmental justice / Nepal*

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Thank you.

# Table of Abbreviations

<b>ADB</b>	Asian Development Bank
<b>BS</b>	Bikram Samvat
<b>CDP</b>	Committee for Development Policy
<b>CEDAW</b>	Convention on the Elimination of All Forms of Discrimination Against Women
<b>DoEnv</b>	Department of Environment
<b>EJ</b>	Environmental Justice
<b>EPR</b>	Extended Producer Responsibility
<b>GDP</b>	Gross domestic product
<b>ICCPR</b>	International Covenant on Civil and Political Rights
<b>ICESCR</b>	International Covenant on Economic, Social and Cultural Rights
<b>ICIMOD</b>	International Centre for Integrated Mountain Development
<b>IUCN</b>	International Union for Conservation of Nature
<b>KMC</b>	Kathmandu Metropolitan City

<b>KSL</b>	Kathmandu School of Law
<b>LDC</b>	Least Developed Countries
<b>MoFE</b>	Ministry of Forest and Environment
<b>NHRC</b>	National Human Right Commission
<b>NMES</b>	Nepal Mahila Ekata Samaj
<b>NPR</b>	Nepalese Rupee
<b>OECD</b>	Organisation for Economic Co-operation and Development
<b>OHCHR</b>	Office of the High Commissioner on Human Rights
<b>PPP</b>	Polluter Pays Principle
<b>SAARC</b>	South Asian Association for Regional Cooperation
<b>SACEP</b>	South Asian Cooperative Environmental Program
<b>UDHR</b>	Universal Declaration of Human Rights
<b>UN</b>	United Nations
<b>UNDP</b>	United Nations Development Programme
<b>UNEA</b>	United Nations Environment Assembly
<b>UNEP</b>	United Nations Environment Program
<b>UNICEF</b>	United Nations Children's Fund
<b>USA</b>	United States of America
<b>WCEL</b>	World Commission on Environmental Law
<b>WHO</b>	World Health Organization

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# 1. Introduction

## 1.1 Introduction

*The right to a clean and healthy environment does not segregate people. Just because they are landless and settle illegally, that does not mean they are not Nepali citizens. The constitution applies to all Nepalese. So it is a fundamental right of theirs also which needs to be addressed properly.*<sup>1</sup>

This statement from a Nepali environmental lawyer, Rupa Basnet, describes the nature of fundamental rights as they are inherently universal, guaranteed to each and every citizen without regard to caste, class, gender, or colour. As until today, the right to a clean and healthy environment has received constitutional recognition and protection in more than 100 states around the world.<sup>2</sup> Nepal is one of these countries. Article 30 (1) of Nepal's Constitution of 2015 states that "Every citizen shall have the right to live in a clean and healthy environment".<sup>3</sup> Furthermore, in 2019 the government passed a new Environment Protection Act to safeguard each citizen's fundamental right to a clean and healthy environment, ensure that the polluter compensates the victim for any damages brought on by environmental pollution or degradation, keep development and the environment in a healthy balance,

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<sup>1</sup> Interview with Lawyers/Judges, Rupa Basnet (In person, 23 May 2023).

<sup>2</sup> David Boyd, 'Chapter 2: The Right to a Healthy and Sustainable Environment' in Yann Aguila and Jorge E Viñuales (eds), *A Global Pact for the Environment: Legal Foundations* (University of Cambridge 2019).

<sup>3</sup> 'Constitution of Nepal' (2015) <[https://ag.gov.np/files/Constitution-of-Nepal\\_2072\\_Eng\\_www.moljpa.gov\\_npDate-72\\_11\\_16.pdf](https://ag.gov.np/files/Constitution-of-Nepal_2072_Eng_www.moljpa.gov_npDate-72_11_16.pdf)> accessed 25 November 2022.

minimise adverse impacts on the environment and biodiversity.<sup>4</sup> Although Nepal has comprehensive textual provisions to protect the environment, their implementation is deficient, leaving the country facing a plastic crisis.

In today's world, plastic is becoming a primary material in an increasing number of products. It's affordable, long-lasting, and convenient, but what happens when it's no longer required? For a long time, no one thought about it. Global plastic consumption has more than doubled since the 1950s, and plastic is choking up the planet quicker than it can be eliminated.<sup>5</sup>

People in vulnerable situations and living in poverty are disproportionately affected by plastic waste and its implication on their lives and full enjoyment of human rights, without being able to contribute to environmental discussions on this issue.<sup>6</sup> Among this group are the people who live in squatter settlements along the riverside of Kathmandu City. Living at the margin of society, they often lack even the most basic access to an adequate standard of living, healthcare, and education.<sup>7</sup> The increasing amount of plastic waste throughout the city, especially seen at the riverside, as these areas are often used as open landfills, aggravates the situation for the squatters. Adding to their already disadvantaged situation, many are unaware of their rights, without accessible information on environmental pollution, without opportunities to participate in decision-making, and without access to effective remedies and justice.

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<sup>4</sup> Anup Raj Upreti, 'Environment Protection Act, 2076 (2019)' (Pioneer Law Associates, 2022) <<https://pioneerlaw.com/resource/environment-protection-act-2076-2019/>> accessed 22 June 2023.

<sup>5</sup> UNEP, 'From Pollution to Solution: A Global Assessment of Marine Litter and Plastic Pollution' (United Nations Environment Programme 2021) <<http://www.unep.org/resources/pollution-solution-global-assessment-marine-litter-and-plastic-pollution>> accessed 21 May 2022.

<sup>6</sup> Marcos Orellana, 'The Stages of the Plastics Cycle and Their Impacts on Human Rights' (2021) A/76/207 <[www.ohchr.org/en/documents/thematic-reports/a76207-stages-plastics-cycle-and-their-impacts-human-rights-report](http://www.ohchr.org/en/documents/thematic-reports/a76207-stages-plastics-cycle-and-their-impacts-human-rights-report)> accessed 5 December 2022; Human Rights Watch, 'Plastics and Human Rights: Questions and Answers' (*Human Rights Watch*, 23 November 2022) <[www.hrw.org/news/2022/11/23/plastics-and-human-rights-questions-and-answers](http://www.hrw.org/news/2022/11/23/plastics-and-human-rights-questions-and-answers)> accessed 5 December 2022.

<sup>7</sup> Anup Khanal, 'Quality of Life in a Kathmandu Slum' [2016] UAS Journal <<https://uas-journal.fi/kansainvalisyys/quality-of-life-in-a-kathmandu-slum/>> accessed 18 February 2023.

This study, thus, examines the impact of plastic pollution on the right to a clean and healthy environment of the people living in the riverside squatter settlements of Kathmandu City and how the government responds to the situation. To answer the research questions, the current study applies a qualitative research method. Interviews with various stakeholders were conducted to obtain different perspectives and a holistic overview of the issue.

## 1.2 Research background

The Kathmandu Valley (including the districts of Kathmandu, Lalitpur, and Bhaktapur) produces around 2.7 tonnes of plastic waste daily.<sup>8</sup> Although Nepal has strict laws regarding plastic and environmental protection, their implementation is lacking. In addition, the waste management system is weak, and there is a lack of general awareness.<sup>9</sup>

Plastics are thrown into or dumped on the banks of the rivers and rivulets that run through the valley and eventually end up in the Bagmati River, which flows through the heart of Nepal's capital.<sup>10</sup> At least 24 of the 40 squatter communities in the Kathmandu Valley are situated along the valley's rivers<sup>11</sup>. Due to low affordability, poor living and working conditions, and hazardous sites, these communities are extremely vulnerable to natural and environmental disasters. They face the problem of flooding during the monsoon season, and there is a high probability of liquefaction in the event of an earthquake. Furthermore, the common habit of disposing of waste and dumping sewage directly into rivers has posed

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<sup>8</sup> ICIMOD, 'A Plastic World' (ICIMOD, 2018) <[www.icimod.org/article/a-plastic-world/](http://www.icimod.org/article/a-plastic-world/)> accessed 6 December 2022.

<sup>9</sup> World Bank, 'Strategic Assessment of Solid Waste Management Services and Systems in Nepal : Policy Advisory Note' (World Bank 2020) <<http://hdl.handle.net/10986/34680>> accessed 5 April 2023.

<sup>10</sup> Nabin Baral, 'In Pictures: Plastic Blights the Beauty of Kathmandu' (*Eco-Business*, 10 April 2018) <[www.eco-business.com/news/in-pictures-plastic-blights-the-beauty-of-kathmandu/](http://www.eco-business.com/news/in-pictures-plastic-blights-the-beauty-of-kathmandu/)> accessed 25 February 2023.

<sup>11</sup> Anushiya Shrestha, Dilli Poudel and Dil Khatri, 'Development, Disasters and Squatter Settlements in Urban Nepal: A Review of Characteristics and Challenges' (Southasia Institute of Advanced Studies (SIAS) 2020) <<https://sias-southasia.org/wp-content/uploads/2022/02/Urban-informality-in-Nepal.pdf>> accessed 4 March 2023.

a hazard to people's health.<sup>12</sup> Especially due to the increasing usage of single-use plastic, the problem of plastic pollution impacts the squatter settlement more and more.<sup>13</sup> Consequently, residents are deprived of their right to a clean and healthy environment.

Environmental rights consist of substantive and procedural rights. The latter includes the right to environmental information, the right to participate in decision-making processes, and the right to effective legal remedies. The aspect that citizens should have some say in how the government makes decisions regarding the environment and the climate is a major argument in favour of these rights. Furthermore, participation enables vulnerable groups, such as those living in squatter settlements, to advocate for themselves, as they are rights-holders. This aspect was also emphasised by UN Special Rapporteur, Marcos Orellana, who stated, "Addressing the negative impacts of the plastics cycle on human rights and integrating a human rights-based approach to plastics policy are indispensable for effective and legitimate solutions to the global plastics problem".<sup>14</sup> In this context, this research project seeks to study the right to a clean and healthy environment of the people living in squatter settlements along the riversides of Kathmandu, focusing on the three mentioned procedural rights as well as environmental justice. Furthermore, this research seeks to deepen the existing understanding of a human rights-based approach to plastic pollution and the respective obligations of the government of Nepal.

### 1.3 Research questions

To be able to understand the situation of the people living in squatter settlements, this research project addresses the following two questions:

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<sup>12</sup> Bijaya K Shrestha, 'Squatter Settlements in the Kathmandu Valley: Looking Through the Prism of Land Rights and Tenure Security' (2013) 24 *Urban Forum* 119.

<sup>13</sup> Baral (n 10).

<sup>14</sup> Orellana (n 6) 23.

01 —How does plastic pollution impact the right to a clean and healthy environment of the people living in the riverside squatter settlements of Kathmandu?

02 —What is the response of the government of Nepal against plastic pollution?

#### 1.4 Research objectives

The overall objective of this study is to understand the impacts of plastic pollution on the rights of the people living in squatter settlements. In this context, the two main research objectives of the study are:

01 —To examine the impacts of plastic pollution on the right to a clean and healthy environment of the people living in the riverside squatter settlements of Kathmandu

02 —To identify policy and practical measures of the government of Nepal and their applicability and efficiency

#### 1.5 Scope of research

This research project focuses on the factors affecting the right to a healthy environment, only considering the effects of plastic pollution. This study is limited to the Kathmandu Municipality City (KMC) and only covers the situation of people who lived in the riverside squatter settlements of Sinamangal and Thapathali at the time of the data-gathering process.

#### 1.6 Significance of research

While plastic production, use, and disposal are frequently framed as strictly environmental issues, they also have significant human rights implications.<sup>15</sup>

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<sup>15</sup> Human Rights Watch, 'Global Plastics Treaty: Opportunity to Protect Rights' (*Human Rights Watch*, 23 November 2022) <[www.hrw.org/news/2022/11/23/global-plastics-treaty-opportunity-protect-rights](http://www.hrw.org/news/2022/11/23/global-plastics-treaty-opportunity-protect-rights)> accessed 5 December 2022.

In Nepal, research has been conducted in the area of environmental degradation due to a weak waste management system.<sup>16</sup> In terms of the people living in squatter settlements in Kathmandu, studies have been carried out on their health conditions,<sup>17</sup> their housing and land rights issues<sup>18</sup> and concerning urban poverty<sup>19</sup> but no research has been done on their right to a healthy environment infringed through plastic pollution and the implication on other human rights.

Another significance of this research is that it will apply a rights-based approach to identify the impacts of plastic waste on people living in squatter settlements along the riverside of Kathmandu City while also focusing on environmental justice.

Therefore, this study can contribute significantly, on the one hand, to informing the squatters of Kathmandu (right holders) about their rights and, on the other hand, to identify the obligations and needed assistance (capacity and resources) of the government (duty bearer) to fulfil their commitments in regard to safeguarding the right to a clean and healthy environment as guaranteed by the Constitution of Nepal. Hence, this research examines and complements how plastic pollution affects the right to a clean and healthy environment. In addition, a major contribution will be made to the state of knowledge on the governmental responses required for the realisation of this right in Kathmandu.

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<sup>16</sup> D Pokhrel and T Viraraghavan, 'Municipal Solid Waste Management in Nepal: Practices and Challenges' (2005) 25 *Waste Management* 555; Asian Development Bank, *Solid Waste Management in Nepal: Current Status and Policy Recommendations* (Asian Development Bank 2013) <[www.adb.org/sites/default/files/publication/30366/solid-waste-management-nepal.pdf](http://www.adb.org/sites/default/files/publication/30366/solid-waste-management-nepal.pdf)> accessed 15 February 2023; Mohan B Dangi, Erica Schoenberger and John J Boland, 'Assessment of Environmental Policy Implementation in Solid Waste Management in Kathmandu, Nepal' (2017) 35 *Waste Management & Research* 618; Netra Bhandari and others, 'A Review on Current Practices of Plastics Waste Management and Future Prospects' (2021) 26 *Journal of Institute of Science and Technology* 107.

<sup>17</sup> Helen Elsey and others, 'Public Health Risks in Urban Slums: Findings of the Qualitative "Healthy Kitchens Healthy Cities" Study in Kathmandu, Nepal' (2016) 11 *PLOS ONE* e0163798; Sumina Shrestha and others, 'Predictors of Incompletion of Immunization among Children Residing in the Slums of Kathmandu Valley, Nepal: A Case-Control Study' (2016) 16 *BMC Public Health* 970.

<sup>18</sup> Shrestha (n 12).

<sup>19</sup> Bala Acharya, 'Urban Poverty: A Sociological Study of Shankhamul Squatter' (2011) 4 *Dhauagiri Journal of Sociology and Anthropology*; Kedar Dahal, 'Urban Poverty: A Study of Income Patterns and Processes of the Poor Families in Kathmandu' (2011) 1 *Banking Journal*.

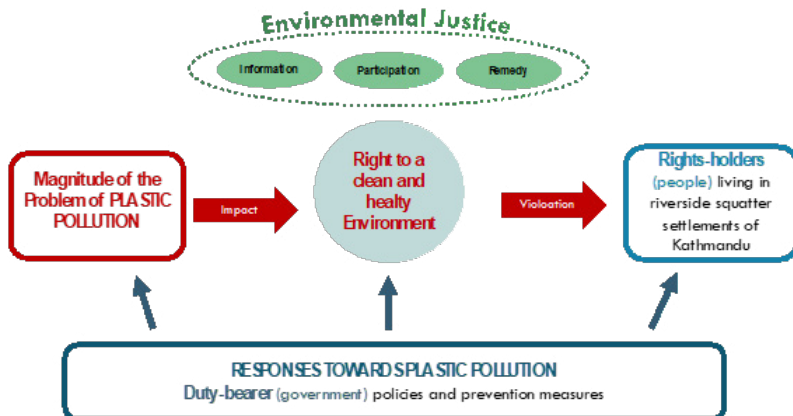
## 1.7 Conceptual framework

At the centre of the framework is the right to a clean and healthy environment, which is affected by plastic pollution and thus violates the right of the people (rights holders) living in the squatter settlements along the riverfront in Kathmandu. On the other hand, the government is the duty bearer who has an obligation to protect and fulfil the rights of its citizens.

In the context of this research, a human rights-based approach is applied. In this regard, procedural rights (the right to information on the hazards of plastic, the right to participation in decision-making on plastics policy, and access to effective remedies) are identified as significant in order to fulfil the right to a clean and healthy environment. Subsequently, the concept of environmental justice and the impact of plastic pollution on the people, which infringes on their right to a healthy environment, is explored taking into consideration the local context of Nepal.

Finally, existing government responses that support the prevention of the plastic crisis are analysed, and their efficiency is examined.

*Figure 1: Conceptual framework of the study  
(Source: own figure by Author)*



## 1.8 Thesis organisation

This thesis is structured as follows: The next sections outline the approach of the thesis in more detail and set the conceptual framework. Chapter two reviews literature related to the right to a clean and healthy environment both on the international level and in the national context of Nepal. A human rights-based approach, as well as the concept of Environmental Justice (EJ), is also presented. The following third chapter explains the methodology of the study as well as the tools and sources of data collection and gives justification for using such methods. It also sets out the rationale for the selection of the study locations and participants. Subsequently, chapter four discusses the findings of the research. After providing an overview of the current challenges of plastic pollution in Kathmandu, the two studied squatter settlements are introduced, and the impact of plastic pollution on the right to a clean and healthy environment of the people living there is presented. This is followed by an analysis of the government's response to the plastic crisis. In this context, firstly, the implementation of the environmental laws is reviewed, the current measures taken by the government are outlined, and, finally, recommendations for the government are also given. Chapter five concludes the thesis with a summary of the results obtained in response to the two research questions and a brief outlook.

## 2. Research Context

This chapter discusses the literature relevant to the right to a clean and healthy environment, first on an international level and, secondly, in the context of Nepal. Furthermore, it also identifies the intersection between plastic pollution and human rights and lays the foundation for the two concepts used in this thesis - a human rights-based approach to plastic pollution and environmental justice. Finally, the legal framework concerning the environment in Nepal and the overall situation of the riverside squatter settlements in Kathmandu is outlined.

### 2.1 The right to a clean and healthy environment on an international level

The term “environment” is rarely mentioned in key human rights treaties. Just once, in the context of industrial hygiene in Article 12 (2b) of the International Covenant on Economic, Social and Cultural Rights (ICESCR, 1966).<sup>20</sup> The International Covenant on Civil and Political Rights (ICCPR, 1966), the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW, 1979), and the Universal Declaration of Human Rights (UDHR, 1948) do not include any reference of the environment.<sup>21</sup>

<sup>20</sup> ICESCR, ‘International Covenant on Economic, Social and Cultural Rights’ (OHCHR, 1966) <[www.ohchr.org/en/instruments-mechanisms/instruments/international-covenant-economic-social-and-cultural-rights](http://www.ohchr.org/en/instruments-mechanisms/instruments/international-covenant-economic-social-and-cultural-rights)> accessed 24 October 2022.”plainCitation”:<sup>20</sup>ICESCR, ‘International Covenant on Economic, Social and Cultural Rights’ (OHCHR, 1966

<sup>21</sup> WHO, ‘Human Rights-Based Approach to Health and Environment’ (2007) <<https://apps.who.int/iris/bitstream/handle/10665/205298/B3222.pdf?sequence=1&isAllowed=y>> accessed 2 March 2023.”plainCitation”:<sup>21</sup>WHO, ‘Human Rights-Based Approach to Health and Environment’ (2007

However, a report from the Office of the High Commissioner on Human Rights emphasises that “while the universal human rights treaties do not refer to a specific right to a safe and healthy environment, the United Nations human rights treaty bodies all recognize the intrinsic link between the environment and the realization of a range of human rights, such as the right to life, to health, to food, to water, and to housing.”<sup>22</sup>

In 1972 the Declaration of the United Nations Conference on the Human Environment in Stockholm was the first instrument at the international level to mention, albeit indirectly, a right to a healthy environment. This declaration clearly identified the adverse human rights impacts of environmental degradation. Its guiding principles outlined responsibilities for individuals, governments, businesses, and scientists to support promoting a sustainable world.<sup>23</sup> In response to the Stockholm Conference, the United Nations Environment Program (UNEP) was established in 1972 with the goal to support governments, civil society, and the private sector to protect the planet.<sup>24</sup> Further key steps in the recognition of a right to a healthy environment were the Rio Declaration of 1992 and the Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters of 1998.<sup>25</sup> The latter was only adopted by the UN Economic Commission for Europe, however, Kofi Annan, formerly Secretary-General of the UN, pointed out: “although regional in scope, the significance of the Aarhus Convention is global [...] it is the most ambitious venture in the area of “environmental democracy” so far undertaken under the auspices of the United Nations.”<sup>26</sup>

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<sup>22</sup> OHCHR, ‘Report of the Office of the United Nations High Commissioner for Human Rights on the Relationship between Climate Change and Human Rights’ (2009) A/HRC/10/61 7 <<https://documents-dds-ny.un.org/doc/UNDOC/GEN/G09/103/44/PDF/G0910344.pdf?OpenElement>> accessed 28 February 2023.

<sup>23</sup> Caroline Schurman-Grenier, ‘Plastic Pollution as a Violation of the Right to a Healthy Environment in the African Charter of Human and People’s Rights’ (McGill Centre for Human Rights and Legal Pluralism 2019) <[www.mcgill.ca/humanrights/files/humanrights/ihri\\_v7\\_2019\\_shurman-grenier.pdf](http://www.mcgill.ca/humanrights/files/humanrights/ihri_v7_2019_shurman-grenier.pdf)> accessed 2 March 2023.

<sup>24</sup> UNEP, ‘About UN Environment’ (29 October 2018) <<http://www.unep.org/news-and-stories/video/about-un-environment>> accessed 2 March 2023.

<sup>25</sup> Alan Boyle, ‘Human Rights and the Environment: Where Next?’ (2012) 23 *European Journal of International Law* 613.

<sup>26</sup> Stephen Stec and Susan Casey-Lefkowitz, ‘The Aarhus Convention: An Implementation Guide’ (United Nations Economic Commission for Europe 2000) <<https://unece.org/fileadmin/DAM/env/pp/acig.pdf>> accessed 2 March 2023.

Furthermore, the right to a healthy environment can be found in several regional human rights treaties. The African Charter on Human Rights and People's Rights (1981) includes such a right, as well as the Additional Protocol to the American Convention on Human Rights in the Area of Economic, Social and Cultural Rights "Protocol of San Salvador" (1988), the Protocol to the African Charter on Human and Peoples' Rights on the Rights of Women in Africa (2003), the Arab Charter of Human Rights (2004), the ASEAN Human Rights Declaration (2012) and the Regional Agreement on Access to Information, Public Participation and Justice in Environmental Matters in Latin American and the Caribbean "Escazú Agreement" (2018).<sup>27</sup>

The right to a healthy environment is much less prevalent on a global scale since states have been reluctant to enact a binding legal instrument recognising such a right for a long time. Therefore, in October 2021, a milestone in the development was reached when the Human Rights Council (HRC) adopted resolution 48/13 (A/HRC/RES/48/13), which considers the right to a clean, healthy and sustainable environment a human right, which is also important to fulfil other human rights.<sup>28</sup> The second decisive step was made in July 2022, when the United Nations General Assembly (UNGA) recognised the human right to a clean, healthy and sustainable environment for everyone on the planet. The resolution 76/300 (A/RES/76/300) was adopted by the UNGA with a recorded vote of 161 in favour and zero against, with eight abstentions. However, it is not legally binding on the 193 member states of the United Nations. Nevertheless, it may have a cascading effect, encouraging countries to include the right to a healthy environment in national constitutions and regional treaties and promoting the

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<sup>27</sup> Elena Cima, 'The Right to a Healthy Environment: Reconceptualizing Human Rights in the Face of Climate Change' (2022) 31 *Review of European, Comparative & International Environmental Law* 38; UNEP, UNDP, and OHCHR, 'What Is the Right to a Healthy Environment? - Information Note' (2022) <<https://wedocs.unep.org/20.500.11822/41599>> accessed 2 March 2023. *Comparative & International Environmental Law* 38; UNEP, UNDP, and OHCHR, 'What Is the Right to a Healthy Environment? - Information Note' (2022)

<sup>28</sup> IUCN, 'The Right to a Healthy Environment' (IUCN, 29 October 2021) <[www.iucn.org/news/world-commission-environmental-law/202110/right-a-healthy-environment](http://www.iucn.org/news/world-commission-environmental-law/202110/right-a-healthy-environment)> accessed 2 March 2023.

implementation of these laws.<sup>29</sup> Furthermore, the establishment of the mandate for the special rapporteur on human rights and the environment by the Human Rights Council in 2012 and its constant extension up to the present time, indicates the importance of the issue and will strengthen the discourse on it.<sup>30</sup>

## 2.2 Substantive and procedural environmental rights

According to a joint report of UNEP, OHCHR and UNDP, “there is not a universally agreed definition of the right to a healthy environment”.<sup>31</sup> From a legal perspective, environmental human rights have procedural and substantive implications. Looking at the implementation of the right to a healthy environment by national courts, most states have adopted legislation that contains procedural and substantive elements that allow for the effective realisation of this right.<sup>32</sup>

In addition, the framework principles on human rights and the environment also outlined both substantive and procedural obligations of states in terms of ensuring the right to a healthy environment.<sup>33</sup>

### 2.2.1 Substantive environmental rights

Rights that directly depend on the environment in order to exist or be exercised are referred to as substantive rights.<sup>34</sup> According to a report by UN Special Rapporteur on human rights and the environment, David Boyd, substantive rights comprise the

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<sup>29</sup> IISD, ‘UNGA Recognizes Human Right to Clean, Healthy, and Sustainable Environment’ (2022) <<https://sdg.iisd.org:443/news/unga-recognizes-human-right-to-clean-healthy-and-sustainable-environment/>> accessed 5 December 2022; UNEP, ‘In Historic Move, UN Declares Healthy Environment a Human Right’ (UNEP, 28 July 2022) <<http://www.unep.org/news-and-stories/story/historic-move-un-declares-healthy-environment-human-right>> accessed 5 December 2022.

<sup>30</sup> OHCHR, ‘Special Rapporteur on Human Rights and the Environment’ (OHCHR) <[www.ohchr.org/en/special-procedures/sr-environment](http://www.ohchr.org/en/special-procedures/sr-environment)> accessed 2 August 2023.

<sup>31</sup> UNEP, UNDP, and OHCHR (n 27) 9.

<sup>32</sup> IUCN (n 28).

<sup>33</sup> UNEP, ‘Framework Principles on Human Rights and the Environment’ (UNEP - UN Environment Programme, 2018) <<http://www.unep.org/resources/policy-and-strategy/framework-principles-human-rights-and-environment>> accessed 15 December 2022.

<sup>34</sup> UNEP, ‘What Are Environmental Rights?’ (UNEP - UN Environment Programme, 2 March 2018) <<http://www.unep.org/explore-topics/environmental-rights-and-governance/what-we-do/advancing-environmental-rights/what>> accessed 2 March 2023.

following elements: clean air, a safe climate, healthy and sustainably produced food, access to safe and adequate sanitation, non-toxic environments in which to live, work and play and healthy ecosystem and biodiversity.<sup>35</sup>

### 2.2.2 Procedural environmental rights

Procedural rights are also often referred to as participatory rights, reflecting a human rights-based approach that places great emphasis on participatory development.<sup>36</sup> The UN Special Rapporteur on human rights and the environment, Boyd, highlights three procedural elements which are included in the right to a healthy environment. First, access to environmental information; second, public participation in environmental decision-making and third, access to justice and effective remedy.<sup>37</sup>

### 2.3 Plastic pollution and human rights

The UN Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes, Orellana, highlights that the entire plastics cycle, in its different phases, has turned into a worldwide threat to human rights. Plastic production, use, and disposal have significant environmental consequences, including toxic pollution from manufacturing, exposure to potentially harmful additives in plastic consumer products, and waste mismanagement. Orellana states that "we are in the midst of a worldwide plastics crisis [...] jeopardizing everyone's full enjoyment of

<sup>35</sup> David Boyd, 'Right to a Healthy Environment: Good Practices - Report of the Special Rapporteur on the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment' (2019) A/HRC/43/53 <<https://documents-dds-ny.un.org/doc/UNDOC/GEN/G19/355/14/PDF/G1935514.pdf?OpenElement>> accessed 2 March 2023.

<sup>36</sup> WHO (n 21).Thailand", "publisher-place": "Bangkok, Thailand", "title": "Human Rights-based Approach to Health and Environment", "URL": "https://apps.who.int/iris/bitstream/handle/10665/205298/B3222.pdf?sequence=1&isAllowed=y", "author": [{"literal": "WHO"}], "accessed": {"date-parts": [{"2023", 3, 2}]}, "issued": {"date-parts": [{"2007"}]}}, "schema": "https://github.com/citation-style-language/schema/raw/master/csl-citation.json"

<sup>37</sup> Boyd, 'Right to a Healthy Environment: Good Practices - Report of the Special Rapporteur on the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment' (n 35).

human rights.”<sup>38</sup> A wide range of human rights are affected, including the right to life, the highest attainable standard of health, a healthy environment, housing, water and sanitation, adequate food, equality and non-discrimination, and the right to information, participation, and effective remedy, each of which is protected by international law.<sup>39</sup>

Plastic waste can be found in every city and in every ocean of the world, literally everywhere. Plastic debris has even been found in the Mariana Trench, the deepest point in the world’s oceans at 11,000 metres and close to the summit of Mount Everest at 8,440 metres high.<sup>40</sup> Since its commercial development in the 1930s and 1940s, plastic has become increasingly dominant in the consumer market.<sup>41</sup> The amount produced has increased exponentially for decades, further compounded by the Covid-19 pandemic.<sup>42</sup> Every living species throughout every ecosystem on the planet is detrimentally affected by plastic pollution. However, people in vulnerable situations and living in poverty are excessively affected by plastic waste and its implication on their lives and human rights.<sup>43</sup>

Additionally, climate change is seen as the greatest threat that modern humans have ever encountered.<sup>44</sup> Tagholm states that “the plastic pollution crisis rivals the threat of climate change as it pollutes every natural system and an increasing number of

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<sup>38</sup> Marcos Orellana, ‘The Stages of the Plastics Cycle and Their Impacts on Human Rights’ (2021) A/76/207, 21 <[www.ohchr.org/en/documents/thematic-reports/a76207-stages-plastics-cycle-and-their-impacts-human-rights-report](http://www.ohchr.org/en/documents/thematic-reports/a76207-stages-plastics-cycle-and-their-impacts-human-rights-report)> accessed 5 December 2022.

<sup>39</sup> Geneva Environment Network, ‘Plastics and Human Rights | Plastics and the Environment Series’ (2022) <[www.genevaenvironmentnetwork.org/resources/updates/plastics-and-human-rights/](http://www.genevaenvironmentnetwork.org/resources/updates/plastics-and-human-rights/)> accessed 5 December 2022; Human Rights Watch, ‘Plastics and Human Rights: Questions and Answers’ (Human Rights Watch, 23 November 2022) <[www.hrw.org/news/2022/11/23/plastics-and-human-rights-questions-and-answers](http://www.hrw.org/news/2022/11/23/plastics-and-human-rights-questions-and-answers)> accessed 5 December 2022.

<sup>40</sup> Sarah Gibbens, ‘Plastic Bag Found at the Bottom of World’s Deepest Ocean Trench’ (National Geographic Society, 3 July 2019) <<http://www.nationalgeographic.org/article/plastic-bag-found-bottom-worlds-deepest-ocean-trench/>> accessed 20 May 2022; Damian Carrington, ‘Microplastic Pollution Found near Summit of Mount Everest’ The Guardian (20 November 2020) <[www.theguardian.com/environment/2020/nov/20/microplastic-pollution-found-near-summit-of-mount-everest](http://www.theguardian.com/environment/2020/nov/20/microplastic-pollution-found-near-summit-of-mount-everest)> accessed 6 December 2022.

<sup>41</sup> Jenna R Jambeck and others, ‘Plastic Waste Inputs from Land into the Ocean’ (2015) 347 Science 768.

<sup>42</sup> Mehnaz Shams, Iftaykhairul Alam and Md Shahriar Mahbub, ‘Plastic Pollution during COVID-19: Plastic Waste Directives and Its Long-Term Impact on the Environment’ (2021) 5 Environmental Advances 100119.

<sup>43</sup> Orellana (n 38).

<sup>44</sup> UN, ‘Climate Change “Biggest Threat Modern Humans Have Ever Faced”, World-Renowned Naturalist Tells Security Council, Calls for Greater Global Cooperation’ (2021) <[press.un.org/en/2021/sc14445.doc.htm](http://press.un.org/en/2021/sc14445.doc.htm)> accessed 4 March 2023.

organisms on planet Earth.”<sup>45</sup> Furthermore, experts claim that plastic pollution has contributed to an alarming role in climate change that is frequently overlooked. For instance, the ability of marine ecosystems to absorb greenhouse gases from the atmosphere is hampered by plastic particles prevalent in oceans.<sup>46</sup> The UN calls it a triple planetary crisis consisting of climate change, biodiversity loss and pollution, which affects the human rights of people worldwide. From climate change-induced drought leading to hunger and famine across the globe to the pollution of water resources everywhere, the world’s environmental crisis is affecting the most vulnerable groups disproportionately.<sup>47</sup>

According to Okai, the pursuit of environmental justice is an essential concern because of the crucial relationship between human rights and our natural environment. Economic and social progress cannot be maintained in the absence of a clean and healthy environment.<sup>48</sup>

In March 2022, resolution 5/14 (UNEP/EA.5/RES.14), “End plastic pollution: towards an international legally binding instrument” was adopted at the fifth United Nations Environment Assembly (UNEA-5.2) in Nairobi. An intergovernmental negotiating committee will draw up the international agreement, which is expected to become legally binding by the end of 2024 at the latest.<sup>49</sup> Inger Andersen, executive director of the United Nations Environment Programme (UNEP), highlighted that this agreement is “the most important international multilateral environmental deal since Paris. And such a deal could be transformational”.<sup>50</sup> The

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<sup>45</sup> Sandra Laville and Matthew Taylor, ‘A Million Bottles a Minute: World’s Plastic Binge “as Dangerous as Climate Change”’ *The Guardian* (28 June 2017) 2 <[www.theguardian.com/environment/2017/jun/28/a-million-a-minute-worlds-plastic-bottle-binge-as-dangerous-as-climate-change](http://www.theguardian.com/environment/2017/jun/28/a-million-a-minute-worlds-plastic-bottle-binge-as-dangerous-as-climate-change)> accessed 4 March 2023.

<sup>46</sup> OHCHR, ‘UN Experts Warn of “Toxic Tidal Wave” as Plastic Pollutes Environment and Threatens Human Rights’ (OHCHR, 2023) <[www.ohchr.org/en/press-releases/2023/06/un-experts-warn-toxic-tidal-wave-plastic-pollutes-environment-and-threatens](http://www.ohchr.org/en/press-releases/2023/06/un-experts-warn-toxic-tidal-wave-plastic-pollutes-environment-and-threatens)> accessed 19 June 2023.

<sup>47</sup> UNEP, UNDP, and OHCHR (n 27).

<sup>48</sup> Asako Okai, ‘The Critical Connection between Human Rights and Our Natural World’ (UNDP, 2022) <[www.undp.org/blog/critical-connection-between-human-rights-and-our-natural-world](http://www.undp.org/blog/critical-connection-between-human-rights-and-our-natural-world)> accessed 19 June 2023.

<sup>49</sup> UNEP, ‘What You Need to Know about the Plastic Pollution Resolution’ (2 March 2022) <<http://www.unep.org/news-and-stories/story/what-you-need-know-about-plastic-pollution-resolution>> accessed 31 May 2022.

<sup>50</sup> Inger Andersen, ‘A Leap Forward for Environmental Action’ (UNEP, 2 March 2022) 3 <<http://www.unep.org/news-and-stories/speech/leap-forward-environmental-action>> accessed 31 May 2022.

establishment of this mandate recognises the critical importance of addressing the plastic crisis. However, it must also be ensured that the problem is tackled in such a manner that a human rights approach is incorporated.<sup>51</sup>

## 2.4 Human rights-based approach to plastic pollution

According to the UN, “a human rights-based approach is a conceptual framework for the process of human development that is normatively based on international human rights standards and operationally directed to promoting and protecting human rights”.<sup>52</sup> It aims to analyse the disparities at the root of development issues and address discriminatory behaviour and unfair power dynamics that obstruct development progress.

In this regard, a human rights-based approach follows the interests of right-holders (including marginalised and disadvantaged groups) and holds duty-bearers (governments, businesses, and people of power) accountable by adhering to the principles of equality, participation, and inclusion. A rights-based approach enables focused intervention to satisfy the needs of vulnerable or marginalised groups by considering the needs and capacities of social groups and addressing underlying socio-economic inequities. In summary, a human rights-based approach to project or program planning and implementation provides a fair, equitable, and morally sound course of action and produces longer-term results that are more effective, suitable, and sustainable.<sup>53</sup> When considered together, human rights and ecology provide a clearer

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<sup>51</sup> Human Rights Watch (n 39).

<sup>52</sup> UN, ‘What Is a Human Rights-Based Approach? - HRBA Portal’ (21 October 2021) 1 <<https://hrbportal.org/faq/what-is-a-human-rights-based-approach/>> accessed 18 February 2023.

<sup>53</sup> UNEP, ‘A Human Rights-Based Approach to Preventing Plastic Pollution’ (UNEP 2019) <[www.sea-circular.org/wp-content/uploads/2020/03/UNEP-COBSEA-SEA-circular\\_Issue-Brief-01\\_A-human-rights-based-approach-to-preventing-plastic-pollution.pdf](http://www.sea-circular.org/wp-content/uploads/2020/03/UNEP-COBSEA-SEA-circular_Issue-Brief-01_A-human-rights-based-approach-to-preventing-plastic-pollution.pdf)> accessed 18 February 2023.

picture of what development should aim to accomplish: guaranteeing all human rights for the current generation while preserving an ecologically sound amount of space that does not jeopardise the rights of future generations.<sup>54</sup>

In the report by Special Rapporteur Orellana on the “implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes, “the principles of a human rights-based approach were also mentioned”.<sup>55</sup> The following four main points were addressed:

- A – Right to information on the hazards of plastic
- B – Right to participation in decision-making on plastics policy
- C – Accountability and access to effective remedies
- D – Prevention and precautionary approaches to risks and harms from plastics

A human rights-based approach towards the management of plastic pollution identifies and tackles the factors contributing to the disparate effects of pollution and environmental degradation on disadvantaged groups in society, such as rural communities and the urban poor, women, children, members of racial and ethnic minorities, those who are disabled, and other marginalised groups.<sup>56</sup> Addressing differential vulnerability requires addressing specific needs through targeted and differentiated actions. Taking into account the connection between human rights and ecology, individual human rights themselves are indivisible, interdependent and interrelated.<sup>57</sup> In this sense, one right (in this case, the right to a clean and healthy environment) “cannot be bought at the expense of others” (for example, the right to an adequate standard of living).<sup>58</sup> The necessity for economic development is

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<sup>54</sup> Aled Dilwyn Fisher, ‘A Human Rights-Based Approach to the Environment and Climate Change: A GI-ESCR Practitioner’s Guide’ (Global Initiative for Economic, Social and Cultural Rights 2014) <[www.globalinitiative-escr.org/wp-content/uploads/2014/03/GI-ESCR-Practitioners-Guide-Human-Rights-Environment-and-Climate-Change.pdf](http://www.globalinitiative-escr.org/wp-content/uploads/2014/03/GI-ESCR-Practitioners-Guide-Human-Rights-Environment-and-Climate-Change.pdf)> accessed 21 June 2023.

<sup>55</sup> Orellana (n 38) 18–20.

<sup>56</sup> UNEP (n 53).

<sup>57</sup> Fisher (n 54).

<sup>58</sup> Simon Nicholson and Daniel Chong, ‘Jumping on the Human Rights Bandwagon: How Rights-Based Linkages Can Refocus Climate Politics’ (2011) 11 *Global Environmental Politics* 121, 132.

typically juxtaposed against initiatives that address climate change in an “either/or” way. A human rights-based approach rejects that formulation and instead directs policymakers toward measures that meet both people’s needs simultaneously.<sup>59</sup>

According to Boyd, the UN special rapporteur on human rights and environment, “the science is unequivocal about the climate crisis, loss of biodiversity, and pervasive pollution, and so too is the evidence that a human rights-based approach to these environmental challenges is the best way to achieve just, healthy and sustainable solutions for people and planet”.<sup>60</sup>

## 2.5 Environmental justice

A rights-based approach is inextricably linked to the concept of environmental justice.<sup>61</sup> The Environmental Justice Movement emerged in North Carolina, United States of America (USA), in the early 1980s as a result of a local dispute over the disposal of toxic waste near a neighbourhood with an African American population. From the beginning, the movement underlined the point that environmental concerns cannot be addressed without exposing the practices that perpetuate social injustices.<sup>62</sup> Since then, extensive research has brought to light the environmental injustices that low-income and minority communities face elsewhere in the world, not only in America.<sup>63</sup>

The United States Environmental Protection Agency defines Environmental Justice (EJ) as “the fair treatment and meaningful involvement of all people regardless of race, colour, national origin, or income with respect to the development, implementation and enforcement of environmental laws, regulations and

<sup>59</sup> Nicholson and Chong (n 58).

<sup>60</sup> GI-ESCR, ‘Put Human Rights at the Centre of Environmental Policy’ (Global Initiative for Economic, Social and Cultural Rights, 11 October 2021) 1 <<https://gi-escr.org/en/our-work/on-the-ground/put-human-rights-at-the-centre-of-environmental-policy>> accessed 21 June 2023.

<sup>61</sup> UNEP, UNDP, and OHCHR (n 27).

<sup>62</sup> AA Lehtinen, ‘Environmental Justice’ in Rob Kitchin and Nigel Thrift (eds), *International Encyclopedia of Human Geography* (Elsevier 2009) <[www.sciencedirect.com/science/article/pii/B9780080449104007732](http://www.sciencedirect.com/science/article/pii/B9780080449104007732)> accessed 21 June 2023.

<sup>63</sup> UNDP, ‘Environmental Justice: Securing Our Right to a Clean, Healthy and Sustainable Environment’ (2022) <[www.undp.org/sites/g/files/zskgke326/files/2022-06/Environmental-Justice-Technical-Report.pdf](http://www.undp.org/sites/g/files/zskgke326/files/2022-06/Environmental-Justice-Technical-Report.pdf)> accessed 5 March 2023.

policies.”<sup>64</sup> Fair treatment means that no population should be unfairly burdened with the detrimental environmental effects of commercial, municipal, and industrial operations or the implementation of federal, state and local laws, regulations, and policies. Effective access to decision-makers and the capacity for all communities to take informed judgments and constructive action to create environmental justice are necessary for meaningful involvement.<sup>65</sup>

The necessity of strengthening the individuals and groups most harmed by and at risk from environmental degradation, such as Indigenous Peoples, women, children, the elderly, those with disabilities, and those in poverty, is emphasised by environmental justice. It is crucial to guarantee that all communities take part in decision-making processes, have access to information, and receive justice when it comes to environmental issues.<sup>66</sup> The disproportionate impact of plastic pollution on vulnerable communities and those living near plastic production and disposal sites is an environmental injustice.<sup>67</sup>

## 2.6 Nepal

Nepal is a mountainous, landlocked nation sharing borders with China to the north and India to the south, east, and west. In 2022, the population of Nepal amounted to around 30.8 million people.<sup>68</sup> Since 1971, Nepal has been classified as one of the least developed countries (LDC) in the world due to its few exports and poor per capita income. The country might leave the LDC category in 2026, according to a recommendation made by the UN Committee for Development Policy (CDP) in 2021. That would represent

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<sup>64</sup> US EPA, ‘Learn About Environmental Justice’ (13 February 2015) 1 <[www.epa.gov/environmentaljustice/learn-about-environmental-justice](http://www.epa.gov/environmentaljustice/learn-about-environmental-justice)> accessed 21 June 2023.

<sup>65</sup> *ibid.*

<sup>66</sup> UNEP, UNDP, and OHCHR (n 27).

<sup>67</sup> UNDP, ‘Neglected: Environmental Justice Impacts of Marine Litter and Plastic Pollution’ (2021) <[www.unep.org/resources/report/neglected-environmental-justice-impacts-marine-litter-and-plastic-pollution](http://www.unep.org/resources/report/neglected-environmental-justice-impacts-marine-litter-and-plastic-pollution)> accessed 5 March 2023.

<sup>68</sup> ADB, ‘Nepal Macroeconomic Update’ (2022) 10 <[www.adb.org/sites/default/files/institutional-document/828286/nepal-macroeconomic-update-202209.pdf](http://www.adb.org/sites/default/files/institutional-document/828286/nepal-macroeconomic-update-202209.pdf)> accessed 4 March 2023.

a change from the 55-year-old identity of a least developed, poor, and vulnerable nation.<sup>69</sup> However, according to UNICEF, 17.4 per cent of Nepalis were multidimensionally poor in 2019, accounting for just under five million persons.<sup>70</sup>

The natural beauty and biodiversity of Nepal are among the best in the world. Nepal, which hosts 8 of the highest peaks on Earth, is also home to 118 ecosystems, 75 types of plants, and 35 different kinds of forests. The risk to these resources is rising. The Nepalese people, especially the rural poor, are directly dependent on natural resources for subsistence, and climate-sensitive businesses like agriculture, forestry, and eco-tourism account for a sizeable percentage of Nepal's gross domestic product (GDP). Apart from earthquakes, Nepal is one of the most disaster-prone nations in the world, especially due to climate change.<sup>71</sup> According to the Country Climate and Development Report, about 80 per cent of the population is at risk from natural and climate-induced hazards.<sup>72</sup>

## 2.7 Plastic pollution in Kathmandu, Nepal

Nepal's capital, Kathmandu, officially Kathmandu Metropolitan City (KMC) is at the centre of the country's most populated urban area and has played a significant role in the country's administration, politics, and economy for hundreds of years. The city has been dealing with significant socioeconomic issues and rapid population growth, resulting in challenges with insufficient urban management of the city's growth, including poor infrastructure and squatter settlements, which have serious environmental impacts.<sup>73</sup>

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<sup>69</sup> Bhoj Raj Poudel, 'Nepal's Graduation from LDC' (2022) <<https://kathmandupost.com/columns/2022/11/08/nepal-s-graduation-from-ldc>> accessed 4 March 2023.

<sup>70</sup> UNICEF, 'Nepal Multidimensional Poverty Index 2021' (23 September 2021) <[www.unicef.org/nepal/reports/nepal-multidimensional-poverty-index-2021-report](http://www.unicef.org/nepal/reports/nepal-multidimensional-poverty-index-2021-report)> accessed 4 March 2023.

<sup>71</sup> USAID, 'Environment and Global Climate Change | Nepal' (U.S. Agency for International Development, 28 July 2022) <[www.usaid.gov/nepal/environment-and-global-climate-change](http://www.usaid.gov/nepal/environment-and-global-climate-change)> accessed 4 March 2023.

<sup>72</sup> World Bank Group, 'Nepal Country Climate and Development Report' (World Bank 2022) <<https://openknowledge.worldbank.org/handle/10986/38012>> accessed 4 March 2023.

<sup>73</sup> Rajesh Bahadur Thapa, Yuji Murayama and Shailja Ale, 'Kathmandu' (2008) 25 Cities 45.

Environmental pollution has been steadily rising and negatively impacting the land, water, air, and biological systems in Kathmandu caused by traffic, emissions from cement and brick industries, garbage management, and burning biomass. Due to the widespread use of plastic in industries like agriculture, hospitality, healthcare, economics, packaging, and consumer goods, plastic pollution is a serious issue in Kathmandu nowadays.<sup>74</sup> According to a study by the International Centre for Integrated Mountain Development, Kathmandu alone uses approximately 4,700,000 to 4,800,000 plastic bags per day, and plastic accounts for 16% of urban waste in Nepal, amounting to 2.7 tons of plastic garbage produced daily.<sup>75</sup>

However, this has not always been the case. Traditional products of Nepal, such as banana leaves, have been used instead of single-use plastics. Many products in Nepal have traditionally been made from biodegradable materials, but due to easy availability, plastic bags have become integrated into daily life for people in Kathmandu. In the past, a plastic bag was seen as something special and was used many times, but today it is regarded as a disposable product with no value, which people throw away without consciousness.<sup>76</sup>

Nepal has established laws to enhance environmentalism, but implementation is lacking.<sup>77</sup> Four times already, the government has announced a plastic bags ban. The last time was in August 2022, prohibiting all plastic bags thinner than 40 microns (The bag's ability to break down into smaller pieces depends on its thickness. The likelihood that the bag may break down and mix with the soil increases with bag thickness, seriously harming the environment). All previous attempts were unsuccessful because

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<sup>74</sup> Pitambar Gautam and others, 'Environmental Magnetic Approach towards the Quantification of Pollution in Kathmandu Urban Area, Nepal' (2004) 29 *Paleo, Rock and Environmental Magnetism* 973.

<sup>75</sup> ICIMOD, 'A Plastic World' (ICIMOD, 2018) <[www.icimod.org/article/a-plastic-world/](http://www.icimod.org/article/a-plastic-world/)> accessed 6 December 2022.

<sup>76</sup> Nabin Baral, 'In Pictures: Plastic Blights the Beauty of Kathmandu' (*Eco-Business*, 10 April 2018) <[www.eco-business.com/news/in-pictures-plastic-blights-the-beauty-of-kathmandu/](http://www.eco-business.com/news/in-pictures-plastic-blights-the-beauty-of-kathmandu/)> accessed 25 February 2023.

<sup>77</sup> Jivesh Jha, 'Laws versus Realities: Where Is Nepal Failing in Environment Protection?' (*Nepal Live Today*, 5 June 2022) <[www.nepallivetoday.com/2022/06/05/laws-versus-realities-where-is-nepal-failing-in-environment-protection/](http://www.nepallivetoday.com/2022/06/05/laws-versus-realities-where-is-nepal-failing-in-environment-protection/)> accessed 26 January 2023.

there is no effective mechanism to implement the regulation.<sup>78</sup> As a result, the critical problem of increasing plastic pollution in urban areas of Nepal, which adversely affects the environment, is not being addressed adequately.<sup>79</sup>

## 2.8 Waste management in Kathmandu, Nepal

Similar to other nations with a comparable level of development, managing the solid waste produced in Nepal's cities, including collection, transportation, treatment, and safe disposal, is a significant challenge. In Nepal, municipal solid waste management mostly consists of waste collection and transportation. Less than half of the waste produced is estimated to be collected in cities. And no treatment is applied before the disposal.<sup>80</sup> Only six of the 58 municipalities assessed in the Asian Development Bank research have landfill facilities. Others discarded their garbage on open ground or along the banks of rivers. According to the report, even cities with landfills did not always dispose of their waste in a scientific manner. The waste is still being dumped in urban open spaces or waterways, which has a negative impact on human health and the environment by contaminating ground and surface water, obstructing storm drains, and leaving stagnant water where insects can breed and cause floods.<sup>81</sup> Uncontrolled waste burning considerably worsens urban air pollution, and leachate from trash dumps contaminates the area's soil and water resources.<sup>82</sup>

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<sup>78</sup> Anup Ojha, 'Government Reintroduces Ban on Plastic Bags, but Implementation Remains Doubtful' (2021) <<https://kathmandupost.com/national/2021/09/17/government-reintroduces-ban-on-plastic-bags-but-implementation-remains-doubtful>> accessed 26 January 2023; Diwash Ghimire, 'Thinner Poly Bags Ban Comes into Effect, but Concerns Remain' (Nepal Minute, 2022) <[www.nepalminute.com/detail/300/thinner-poly-bags-ban-comes-into-effect-but-concerns-remain-2022-Aug-17-587100/](http://www.nepalminute.com/detail/300/thinner-poly-bags-ban-comes-into-effect-but-concerns-remain-2022-Aug-17-587100/)> accessed 26 January 2023.

<sup>79</sup> Sakhie Pant, 'Thinking Twice about Single-Use Plastics' (The Kathmandu Post, 2022) <<https://kathmandupost.com/columns/2022/05/01/thinking-twice-about-single-use-plastics>> accessed 5 December 2022.

<sup>80</sup> World Bank, 'Strategic Assessment of Solid Waste Management Services and Systems in Nepal : Policy Advisory Note' (World Bank 2020) <<http://hdl.handle.net/10986/34680>> accessed 5 April 2023.

<sup>81</sup> ADB, 'Solid Waste Management in Nepal: Current Status and Policy Recommendations' (ADB 2013) <[www.adb.org/sites/default/files/publication/30366/solid-waste-management-nepal.pdf](http://www.adb.org/sites/default/files/publication/30366/solid-waste-management-nepal.pdf)> accessed 5 April 2023.

<sup>82</sup> World Bank (n 80).

Kathmandu Metropolitan City (KMC) is in charge of handling waste for Kathmandu, and KMC's Environment Management Division oversees waste management. Before the urbanisation of the Kathmandu Valley, most of the solid waste in Kathmandu consisted of organic waste. Households disposed of the waste they generated themselves. Therefore, the majority of waste was composted in individual households or reused and recycled internally within households. In the 1960s, urbanisation and the increase in commerce and consumption caused a greater amount of generated waste. In the absence of a formal waste disposal system, people began to simply dispose of their household waste along the banks of the Bagmati River. In order to reduce the environmental impact of waste dumping on the riversides, the Gokarna landfill site (at a distance of around 13 km from the centre of Kathmandu) was built and put into operation in 1986. Due to protests by local people, it could not operate properly and had to shut down in between until its ultimate closure in 2000. Consequently, garbage was again disposed of along the Bagmati River and Bishnumati River. In 2005, a new landfill opened in Sisdol (at a distance of around 20 km from the centre of Kathmandu). Prior to being transported to the Sisdol dump site, the collected waste is first brought to the Teku transfer station in Kathmandu for sorting and loading onto larger vehicles.<sup>83</sup> In 2022, a new landfill in Bancharedanda (1.9 km west of Sisdol landfill) was opened, after the Sisdol landfill site was filled. However, the landfill model is not sustainable as two landfills are already full, and adding another won't change anything.<sup>84</sup>

Kathmandu doesn't have a systematic recycling system in place yet. At the household level, some waste is sorted, and a few non-governmental organisations are engaged in recycling. The "urban poor" sort a significant amount of the rubbish on the streets or at the Teku transfer station. These informal waste workers (IW-Ws) sift and gather materials, including plastics, paper, glass, and metals, which are then often sold to private companies.<sup>85</sup> Putting

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<sup>83</sup> Saurav Rana, 'Solid Waste Management for Kathmandu Metropolitan City' (Daayitwa Fellow with Kathmandu Metropolitan City 2013) <[www.daayitwa.org/storage/archives/1582196713.pdf](http://www.daayitwa.org/storage/archives/1582196713.pdf)> accessed 18 February 2023.

<sup>84</sup> Shashwat Pant, 'New Kathmandu Mayor Prioritises Waste Management, but People Need to Learn It All Starts at Home - OnlineKhabar English News' (31 May 2022) <<https://english.onlinekhabar.com/waste-management-starts-at-home.html>> accessed 21 June 2023.

<sup>85</sup> Rana (n 83).

more emphasis on the segregation of solid waste at the household level and during collection, on recycling, and increasing awareness across the citizens is the way forward. Furthermore, the KMC must look into more effective, cutting-edge methods of managing both recyclable and organic solid waste Fields.<sup>86</sup>

## 2.9 The right to a clean and healthy environment in Nepal

Nepal is a member of several regional organisations, such as the South Asian Association for Regional Cooperation (SAARC), the South Asian Cooperative Environmental Program (SACEP), and the International Centre for Integrated Mountain Development (ICIMOD). Furthermore, as a member of the UN and expressing complete faith in the UN Charter, Nepal has joined a variety of international environmental instruments as a result of these affiliations, external pressures, and internal activities. Notwithstanding Nepal's weak implementation of the provisions of international treaties in domestic law, there are indications that the country is becoming more conscious of its own environmental issues. As a result, there are several national legal actions that are related to international environmental law, even though many of them are unfruitful due to inadequate drafting, a lack of funding to implement them effectively, or even both. Two of Nepal's first environmental laws were the Forest Act of 1961 and the Aquatic Animals Protection Act of 1961. It shows an early recognition of the significance of wetlands and aquatic species. With the the National Parks and Wildlife Conservation Act of 1973, the Soil and Watershed Conservation Act of 1982, the Solid Waste Act of 1987, the Water Resources Act of 1992, and the new Forest Act of 1993, Nepal strengthened its environmental legislation. The 1990 Constitution of the Kingdom of Nepal gave the government the authority to prioritise environmental conservation and prevent environmental harm from physical development operations for the first time.<sup>87</sup>

<sup>86</sup> Nabin Kafle, 'Solid Waste Management in Kathmandu and the Way Forward' (Nepal Live Today, 27 September 2022) <[www.nepallivetoday.com/2022/09/27/solid-waste-management-in-kathmandu-and-the-way-forward/](http://www.nepallivetoday.com/2022/09/27/solid-waste-management-in-kathmandu-and-the-way-forward/)> accessed 21 June 2023.

<sup>87</sup> Narayan Belbase, 'The Implementation of International Environmental Law in Nepal' (IUCN 1997) <<https://portals.iucn.org/library/sites/library/files/documents/1997-014.pdf>> accessed 5 March 2023.

The role of the judiciary plays a major part in securing the right to a clean and healthy environment in Nepal, as the constitution has granted extraordinary jurisdictional power of the court. In the case of *Surya Prasad Sharma Dhungel v Godavari Marble Industries and Others* (Order Writ No 35 of the year 2049 BS (1992)), the Supreme Court interpreted that a clean, healthy environment is an essential component of human life and therefore, the right to a clean and healthy environment is undoubtedly embedded within the right to life. The writ petition was filed in an effort to stop marble extraction from the Godavari Hills region by Godavari Marble Industries. The entire hill had been being excavated, which had a negative impact on the surrounding environment and caused deforestation, flooding, sludge buildup on arable land, ultimately threatening the lives of the residents of the Godavari area. Since the right to a clean and healthy environment is a key component of environmental protection, the Supreme Court's ruling in this case had a significant impact on the field of environment. Following the Godavari Marble case, it became possible to enforce this right in Nepal as a constitutional right.<sup>88</sup> The Interim Constitution of 2007 (Article 16 (1) states: "Every person shall have the right to live in a clean environment".)<sup>89</sup> guaranteed for the first time a fundamental right to a healthy environment which is still enshrined in the currently valid Constitution of 2015 (Article 30 states: (1) "Each person shall have the right to live in a healthy and clean environment". (2) "The victim of environmental pollution and degradation shall have the right to be compensated by the pollutant as provided for by law").<sup>90</sup> The 2015 Constitution stands out from earlier versions because it incorporates the concept of "sustainable development" throughout its preamble, fundamental rights, and directive principles. By supporting several environmental principles like the precautionary principle, intergenerational equality, and the polluter pays principle (PPP), this Constitution adds additional dimensions.<sup>91</sup>

<sup>88</sup> Bijay Singh Sijapati, 'The Right to a Healthy and Clean Environment as a Human Right: An International Perspective in National Practices' (2013) 7 *NJA Law Journal* 65.

<sup>89</sup> FAOLEX, 'Interim Constitution of Nepal' (2007) <[www.fao.org/faolex/results/details/en/c/LEX-FAOC127536/](http://www.fao.org/faolex/results/details/en/c/LEX-FAOC127536/)> accessed 5 March 2023.

<sup>90</sup> Nepal\_2072\_Eng\_www.moljpa.gov.\_npDate-72\_11\_16.pdf> accessed 25 November 2022.

<sup>91</sup> Rupa Basnet Parasai and Kripa Shrestha, 'Legal and Judicial Aspects of Sustainable Development in Nepal: A Bird's Eye View' (International Sustainable Development Research Society 2021) <<https://oxford-abstracts.s3.amazonaws.com/c6e25c6e-eb50-4a5a-836d-4d2bc5a3e604.pdf>> accessed 5 March 2023.

## 2.10 Legal framework related to environment and plastic pollution in Nepal

Besides the constitutional environmental provision, the Godavari Marble case served as a milestone in the development of the Environment Protection Act 2053 BS (1997).<sup>92</sup> In 2019, the Environment Protection Act 2076 BS (2019) replaced the earlier law. The act was adopted and enacted in Nepal to uphold the constitutional right of citizens to a clean and healthy environment. The state and its residents are both required under this green law to safeguard and enhance the environment. The act contains many favourable features that support the concept of environmentalism. According to the act, a victim of environmental pollution has the right to submit a request for compensation against the individual or group responsible for the pollution to the relevant body (Article 36 (2) of the Environment Protection Act 2076 BS (2019)). This is in accordance with the polluter pays principle (PPP) as stated in Article 30 (2) of the Nepalese Constitution.<sup>93</sup>

This Act defines “pollution” as the degradation of the natural environment’s quality brought on by waste, chemical heat, sound, electronic magenta, or radiations (Article 2 (j) of the Environment Protection Act 2076 BS (2019)). Moreover, the term ‘harmful substances’ is defined as per the Basel Convention of 1989, which also includes harmful wastes that unintentionally cross national borders (Article 2 (f) of the Environment Protection Act 2076 BS (2019)).<sup>94</sup>

Any development work that is not compliant with the Environment Study Report, Environmental Management Plan, Environment Assessment Report, or Supplementary Environment Impact Assessment is prohibited by the Act of 2019 (Chapter 2: Environmental Study, Article 3-14 of the Environment Protection Act 2076 BS (2019)). However, only the Initial Environment

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<sup>92</sup> *ibid.*

<sup>93</sup> Alok Kumar Yadav and Jivesh Jha, ‘Environmental Protection Regime under Nepal’s Constitutional Renaissance: A Revisit to the Salient Features of the Environment Protection Act, 2019’ (2022) 2 *Gehu Law Review* <<https://gehulawreview.com/wp-content/uploads/2022/02/GLR22P2.pdf>> accessed 22 June 2023.

<sup>94</sup> *ibid.*

Examination and the Environment Impact Assessment (EIA) were included in the 1997 environmental law. Thus, in order to achieve a balance between development and the environment, the current act goes above and beyond these bounds and imposes extra restrictions.<sup>95</sup>

The 1997 act did not address the issue of climate change or the regulation of greenhouse gasses and other gases, which is addressed in the new law. Additionally, it includes measures for waste management, mountain and hill conservation, carbon trading, and the preservation of national historic monuments. This broadens the scope of Nepal's legal environmental protection framework.<sup>96</sup>

The second essential law especially concerning plastic waste is the Solid Waste Management Act 2068 BS (2011). In order to maintain a clean and healthy environment, the act seeks to reduce the harmful impacts of solid waste on the environment and public health. It states that infrastructure for the collection, treatment, and ultimate disposal of municipal solid waste must be built, operated, and managed by local entities, such as municipalities (Article 3 of the Solid Waste Management Act 2068 BS (2011)). The act requires local government entities to take the required actions to encourage reduce, reuse, and recycle (3R) (Article 10 of the Solid Waste Management Act 2068 BS (2011)), including the source-level segregation of solid waste (Article 6 of the Solid Waste Management Act 2068 BS (2011)). Furthermore, it allows the punishment of anyone who disposes of solid waste in the street or other public places (Article 38 (g) of the Solid Waste Management Act 2068 BS (2011)). The enactment of the law in 2011 was a significant step toward enhancing solid waste management practices in Nepal; however, it has not been adequately implemented in terms of actions and results on the ground.<sup>97</sup>

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<sup>95</sup> Anup Raj Upreti, 'Environment Protection Act, 2076 (2019)' (Pioneer Law Associates, 2022) <<https://pioneerlaw.com/resource/environment-protection-act-2076-2019/>> accessed 22 June 2023.

<sup>96</sup> *ibid.*

<sup>97</sup> ADB, 'Solid Waste Management in Nepal: Current Status and Policy Recommendations' (n 81).

However, the implementation of the Solid Waste Management Rules 2070 BS (2013), which gives the specifics of how the provisions of the applicable portions of the Solid Waste Management Act will be carried out, has reinforced the Solid Waste Management Act further.<sup>98</sup> In addition, in October 2022, the government issued the Solid Waste Management National Policy 2022 to promote proper waste management.<sup>99</sup>

A study by Dangi, Schoenberger and Boland demonstrates that numerous new laws in Nepal are passed without being effectively enforced, and there are frequently power struggles between local government entities and the central government on the application of the laws and the distribution of funds for solid waste management. According to the study's findings, Kathmandu does not need any new instrument to manage its solid waste issues; rather, it needs to develop local resources, implement local ordinances, and obtain the central government's commitment to allowing unrestricted application of these regulations.<sup>100</sup>

## 2.11 Riverside squatter settlements in Kathmandu

Squatter settlements represent a negative aspect of urbanisation. Many people leave Nepal's rural areas for the cities in search of higher living standards. However, they often receive the opposite of what they migrated for and end up living in informal settlements.<sup>101</sup> According to UN-HABITAT, "informal or spontaneous settlements are settlements whereby persons, or squatters, assert land rights or occupy for exploitation of land which is not registered in their names, or government land, or land legally owned by other individuals".<sup>102</sup>

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<sup>98</sup> World Bank (n 80).

<sup>99</sup> The Himalayan, 'New Policy to Promote Proper Waste Management' (The Himalayan Times, 21 October 2022) <<https://thehimalayantimes.com/environment/new-policy-to-promote-proper-waste-management>> accessed 23 June 2023.

<sup>100</sup> Mohan B Dangi, Erica Schoenberger and John J Boland, 'Assessment of Environmental Policy Implementation in Solid Waste Management in Kathmandu, Nepal' (2017) 35 Waste Management & Research 618.

<sup>101</sup> Bashu Dev Deshar, 'Squatters Problems along Bagmati Riverside in Nepal and Its Impact on Environment and Economy' (2013) 4 International Journal of Environmental Engineering and Management 127.

<sup>102</sup> UN-HABITAT, 'Informal Settlements in the Arab Region - "Towards Arab Cities without Informal Areas" Analysis and Prospects' (United Nations Human Settlements Programme (UN-Habitat) 2020) 9 <[https://unhabitat.org/sites/default/files/2020/02/1-200210\\_regional\\_is\\_report\\_final\\_4.0.pdf](https://unhabitat.org/sites/default/files/2020/02/1-200210_regional_is_report_final_4.0.pdf)> accessed 24 June 2023.

In 1985, only 17 squatter settlements existed in Kathmandu Valley, with a population of 3,000, but in 1994, there were already 33 squatter settlements hosting 15,000 people.<sup>103</sup> Squatter communities have grown as a result of high living costs, unemployment, failure to address land and housing demands, poor governance, and other factors.<sup>104</sup> In 2008, a non-governmental organisation called Lumanti identified 45 informal settlements, 40 of which classified themselves as squatter settlements. The occupants of the other five colonies designated themselves as *swabasi*, which is Nepali for “dwellers staying by themselves,” as they refused to be labelled as squatters. At least 24 of these 40 squatter settlements are situated along the Bagmati, Bishnumati, Hanumante, Tukcha, and Dobikhola rivers, which flow through the valley.<sup>105</sup>

The increased economic activity and demographic expansion have put immense pressure on the rivers. They are currently heavily polluted due to the widespread disposal of solid waste and the discharge of sewage. The quality of life in these settlements is severely limited, and settlement dwellers face unworthy living conditions. The settlements suffer from a serious inadequacy of basic facilities such as adequate shelter, safe drinking water, a clean environment, and electricity, among many other basic amenities.<sup>106</sup> Residents of squatter settlements suffer from a strong sense of social exclusion. They were denied the opportunity to participate in local and national political processes due to their lack of land tenure and inability to get voter registration cards. It is widely believed that squatter communities are the breeding place for insecurity and criminal activity. Most locals view them as strangers and temporary settlers.<sup>107</sup>

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<sup>103</sup> ICIMOD, ‘Kathmandu Valley Environment Outlook’ (International Centre for Integrated Mountain Development 2007) <<https://lib.icimod.org/record/7434>> accessed 4 March 2023.

<sup>104</sup> Bijaya K Shrestha, ‘Squatter Settlements in the Kathmandu Valley: Looking Through the Prism of Land Rights and Tenure Security’ (2013) 24 *Urban Forum* 119.

<sup>105</sup> Anushiya Shrestha, Dilli Poudel and Dil Khatri, ‘Development, Disasters and Squatter Settlements in Urban Nepal: A Review of Characteristics and Challenges’ (Southasia Institute of Advanced Studies (SIAS) 2020) <<https://sias-southasia.org/wp-content/uploads/2022/02/Urban-informality-in-Nepal.pdf>> accessed 4 March 2023.

<sup>106</sup> Anup Khanal, ‘Quality of Life in a Kathmandu Slum’ [2016] *UAS Journal* <<https://uas-journal.fi/kansainvalisys/quality-of-life-in-a-kathmandu-slum/>> accessed 18 February 2023.

<sup>107</sup> Shrestha (n 104).

Besides that, many residents live in fear of forced evictions and home demolitions without plans for adequate alternative housing, due to the implementation of the Bagmati River Basin Improvement Project, financed by the Asian Development Bank (ADB), which aims to improve water management and the river environment. In November 2022, the municipal police tried to destroy shelters of the squatters in the Thapathali informal settlement and encountered stiff resistance from the squatters. Since then, the social and economic difficulties have been compounded by the problem of displacement for the squatters.<sup>108</sup>

This chapter has provided the foundational state of knowledge for the upcoming analysis and answering of the research questions, outlining both the international and national perspectives on the right to a clean and healthy environment. The country context of Nepal and the situation of the riverside squatter settlements are especially crucial for this thesis as they help to understand the responses of the research participants. The next chapter will present the background of these respondents and describe in general terms the principles on which the methodology of this thesis is based.

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<sup>108</sup> Anup Ojha and Prithvi Man Shrestha, 'Thapathali Squatters Thwart Another Eviction' (The Kathmandu Post, 2022) <<http://kathmandupost.com/kathmandu/2022/11/29/thapathali-squatters-thwart-another-eviction>> accessed 24 June 2023; ADB, 'Bagmati River Basin Improvement Project' (Asian Development Bank, 2023) <[www.adb.org/projects/43448-013/main](http://www.adb.org/projects/43448-013/main)> accessed 24 June 2023.

## 3. Methodology

This chapter lays down the methodological approach employed in the course of this thesis. A form of qualitative research to understand the underlying factors of plastic pollution and the right to a clean and healthy environment was used. The study was conducted on the basis of primary and secondary data. According to Creswell, qualitative research should be used when “a problem or issue needs to be explored” and when “a complex, detailed understanding of the issue” is needed.<sup>109</sup> Furthermore, it allows the researcher to understand the context and background of the study’s participants, as this often influences the findings.<sup>110</sup> This applies to this research as it plans to identify the interlinkages between plastic pollution and the right to a clean and healthy environment. Therefore, qualitative research supports collecting different voices and perspectives concerning this issue in Kathmandu, Nepal. The following sections will clarify the scope of the selected research methodology.

### 3.1 Research design

Case study research is used as the approach for this qualitative research. This approach supports gaining a particular understanding of the plastic crisis as a major problem affecting people’s right to a clean and healthy environment by collecting data in Kathmandu. A strength of case study research is that it is “particularly well suited for investigating events that are occurring in

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<sup>109</sup> John W Creswell, *Qualitative Inquiry and Research Design: Choosing among Five Approaches* (3rd ed, SAGE Publications 2013) 47–48.

<sup>110</sup> *ibid.*

a contemporary context”,<sup>111</sup> which applies to this study given that the increasing amount of plastic waste in Kathmandu is having a huge impact on people’s current lives and their human rights. The case of people living in squatter settlements in Kathmandu City is used in this thesis to demonstrate the connection between plastic pollution and the right to a clean and healthy environment. Within the scope of this research, two settlements (cases) were chosen to collect data to answer the two research questions (see chapter 3.2 about the research location).

Of the several data-gathering tools under the case study method, the researcher used semi-structured interviews. An open-ended questionnaire with an interview guideline was prepared, whereby the questions depended on the circumstances of the interviewee as well as the depth of knowledge regarding the issue. This interview approach was chosen in the qualitative study to elicit the participants’ individual perspectives while maintaining consistency and structure in the interview processes. To be able to acquire a more in-depth understanding of the issue at hand, purposive sampling combined with the snow-balling technique<sup>112</sup> was employed, and the sample size was determined through data saturation.<sup>113</sup> Besides interviews, this study also used observations as a research tool in order to study the environment of riverside squatters and the circumstances of their natural habitat influenced by plastic pollution.

### 3.2 Research location

The main study population consists of people living in squatter settlements along the riverside of Kathmandu City, Nepal. In cooperation with the NGO Nepal Mahila Ekata Samaj (NMES), adults from two different settlements in Sinamangal and Thapathali were interviewed to get insights from different locations and to avoid a one-sided view. NMES is the only organisation in Nepal headed by women representing landless and informal settlement

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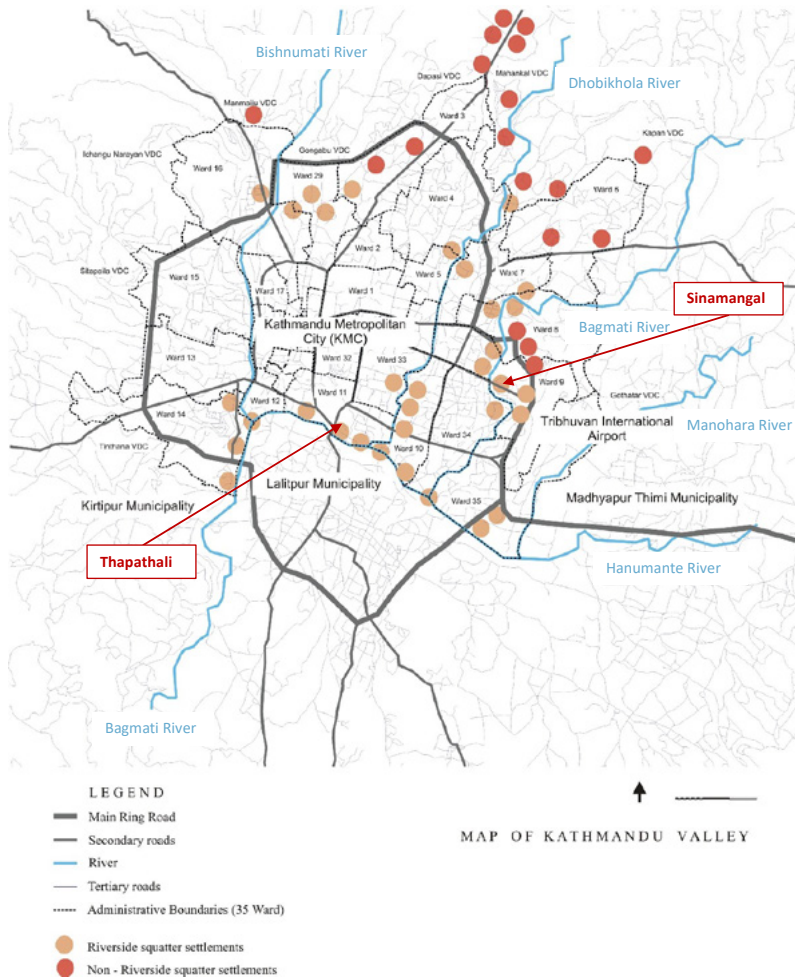
<sup>111</sup> Jillian Farquhar, ‘Case Study Research for Business’ in pages 3-14 (SAGE Publications Ltd 2022) 6 <<https://methods.sagepub.com/book/case-study-research-for-business>> accessed 5 December 2022.

<sup>112</sup> Lawrence Palinkas and others, ‘Purposeful Sampling for Qualitative Data Collection and Analysis in Mixed Method Implementation Research’ (2013) 42 Administration and policy in mental health.

<sup>113</sup> Sandra Faulkner and Stormy Trotter, ‘Data Saturation’ (2017).

communities advocating for women’s secure and safe shelter rights. The Vision of NMES is a just, equity-based, non-discriminatory, peaceful, and inclusive society. The following figure shows the locations of the settlements within Kathmandu.

*Figure 2: Map of the research locations  
(Source: Shrestha, 2022 edited by author)*



### 3.3 Source of data

Primary sources combined with secondary data collected from various sources constitute the data basis for the thesis. The following sections will describe the data sources in detail.

#### 3.3.1 Primary data

In order to answer the research questions of this thesis in an all-encompassing manner, primary data were collected from three different groups of people: people living in squatter settlements along the riverside (1), lawyers and judges (2), and members of NGOs and other relevant stakeholders such as government officials (3). The first group was chosen to collect information from the rights-holders themselves and how plastic pollution impacts their livelihood. The second and third group were also asked about their points of views regarding the situation of the squatter settlements, however the main objectives of these interviews was to gain data on the response of the government of Nepal toward plastic pollution and its efficiency. In particular, the data received from the members of local NGOs as well as from the representatives of the United Nations Development Programme (UNDP) in Nepal and the National Human Rights Commission (NHRC) provided a more independent perspective on the topic as they were not involved directly, either as rights-holders (settlers) or as duty-bearers (government).

The interviewees were all of Nepalese nationality. Every effort has been made to achieve diversity in terms of age and gender, but it was noted that, particularly at the expert level, there are more men working in the field of this study. Consequently, this is also reflected in the sample size of the study.

First, nine adults from the riverside settlements of Sinamangal and Thapathali were interviewed (originally, the researcher planned to interview five people from each settlement, however, only four people were available in Thapathali, for this reason the uneven number emerged (9 = 5 people from Sinamangal settlement and 4 people from Thapathali settlement)). The individuals were purposefully selected by the responsible representative of the NMES for the respective settlement based on their consent. Furthermore, the selection criteria were that they were adults (older than 18 years) and had lived in the settlement for a minimum of five years. Ideally, an equal number of female and male candidates

would have been chosen; however, the researcher relied on the persons who consented to be interviewed. Second, three lawyers and three judges were questioned, who were approached with the support of the Clinical Law Department of the Kathmandu School of Law (KSL). All were selected on the basis that they practice in the field of environmental law. The third group consists of members of NGOs and other relevant stakeholders in the field of environment in Nepal. In total, eight individuals from this group were interviewed. The researcher contacted these experts purposefully, based on their expertise. According to Meuser and Nagel, experts can be described as people who are responsible for designing, implementing, or controlling a solution to a problem or as people who have privileged access to information about groups of people or decision-making processes.<sup>114</sup> In an expert interview, the interviewee is questioned as an “information provider,” ie, personality and biographical data are not initially relevant.<sup>115</sup> The interviewees were selected in this context.

All interviews were conducted in the period from 21 May to 16 June 2023 in a semi-structured manner (only one person submitted the answers via email later, on 30 June 2023). In this type of interview, the interviewer leads the conversation with the interviewee based on previously prepared questions (see Appendix A). Due to the different types of respondents, the questions varied for each of the three groups but always aimed at getting to the bottom of the impact of plastic pollution on the right to a clean and healthy environment and the response of the Nepalese government. The people living in squatter settlements along the riverside were firstly asked about their general situation in order to get an insight into the way of life in such a settlement. Subsequently, the questions were related to their own usage of plastic items, their knowledge about pollution and their related rights. In the last part, they were then asked about their opinions on the government’s actions. The second group, lawyers and judges, were asked about their own experience with environmental cases in Nepal, especially concerning plastic pollution and on the adequacy

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<sup>114</sup> Michael Meuser and Ulrike Nagel, ‘ExpertInneninterview’ in Ruth Becker and Beate Kortendiek (eds), *Handbuch Frauen- und Geschlechterforschung: Theorie, Methoden, Empirie* (VS Verlag für Sozialwissenschaften 2010) <[https://doi.org/10.1007/978-3-531-92041-2\\_44](https://doi.org/10.1007/978-3-531-92041-2_44)>.

<sup>115</sup> Robert Kaiser, ‘Einleitung’ in Robert Kaiser (ed), *Qualitative Experteninterviews: Konzeptionelle Grundlagen und praktische Durchführung* (Springer Fachmedien Wiesbaden 2021) 5 <[https://doi.org/10.1007/978-3-658-30255-9\\_1](https://doi.org/10.1007/978-3-658-30255-9_1)>.

of laws regarding environmental protection and their implementation. The questions for the third group, members of NGOs and other relevant stakeholders, focused on the impact of plastic pollution in Kathmandu and Nepal and on the response and the action of the government.

The questions were purposefully asked in an open-ended manner to enable the interviewees to present their own opinions in the context of their personal or professional roles. Furthermore, this type of interview enabled the researcher to ask for more details based on the participant's responses. This strategy was needed to answer the research questions because the course of each interview was unpredictable. Especially with regard to the interviews with the people from the settlements, the level of knowledge they had on the subject was uncertain. Therefore, the freedom for the researcher to act spontaneously during the interviews was crucial to collect as much data as possible. The interviews lasted an average of 30 minutes and were all conducted by the author personally in Kathmandu. An interpreter who spoke both Nepali and fluent English was employed for the interviews with the people from the squatter settlement. All other interviews were conducted in English only. For the purpose of documentation, they were recorded and subsequently transcribed (in order to secure confidentiality, the recordings and transcripts were destroyed after completing the thesis).

The identity of the squatter settlement residents was anonymised to minimise any risk to them that might result from their statements, while all other respondents agreed that their actual identity could be given. The following two tables show a breakdown of all study participants sorted by the three groups mentioned.

No	Respondent Label	Age Group	Gender	Squatter Settlement
1	Respondent 1	30	Female	Sinamangal
2	Respondent 2	40	Female	Sinamangal
3	Respondent 3	55	Female	Sinamangal
4	Respondent 4	18	Female	Sinamangal

No	Respondent Label	Age Group	Gender	Squatter Settlement
5	Respondent 5	23	Male	Sinamangal
6	Respondent 6	58	Female	Thapathali
7	Respondent 7	27	Female	Thapathali
8	Respondent 8	36	Male	Thapathali
9	Respondent 9	47	Male	Thapathali

*Table 1: Profile of respondents - Group 1*  
(Source: own table by Author)

The above table represents the nine people living at the research locations of this study. Under ethical considerations and to guarantee confidentiality, their names are not disclosed. The age groups are mentioned as the responses depend to some extent on the generation and life experience of the participants. The following table shows the research participants from the two other groups.

No	Group	Name	Occupation
1	Lawyers/judges	Rupa Basnet	Environmental Lawyer
2	Lawyers/judges	Sanjay Adhikari	Environmental Lawyer
3	Lawyers/judges	Raju Prasad Chapagain	Constitutional and Human Rights Lawyer
4	Lawyers/judges	Prof Binod Prasad Sharma	Judge, High Court of Nepal
5	Lawyers/judges	Prof Dr. Ravi Sharma Aryal	Judge, High Court of Nepal
6	Lawyers/judges	Gauri Dhakal	Judge, Supreme Court of Nepal

No	Group	Name	Occupation
7	Members of NGOs/ relevant stakeholders	Dr Surya Prasad Sharma Dhungel	Member of the National Human Right Commission of Nepal (NHRC)
8	Members of NGOs/ relevant stakeholders	Yunish Ghimire	Program Development Officer, Center for Research and Sustainable Development Nepal (CREASION)
9	Members of NGOs/ relevant stakeholders	Rabindra Lamichhane	Executive Director, Clean up Nepal
10	Members of NGOs/ relevant stakeholders	Pankaj Panjiyar	Chief Operations Officer, Doko Recyclers
11	Members of NGOs/ relevant stakeholders	Pragyajan Yalamber Rai	Portfolio Manager (Resilience & Environment), UNDP Nepal
12	Members of NGOs/ relevant stakeholders	Ajaya Dixit	Executive Director, Institute for Social and Environmental Transition Nepal
13	Members of NGOs/ relevant stakeholders	Saroja Adhikari	Information Officer, Department of Environment
14	Members of NGOs/ relevant stakeholders	Tika Regmi	Environment Inspector, Department of Environment

*Table 2: Profile of respondents - groups 2 and 3  
(Source: own table by author)*

### 3.3.2 Secondary data

Secondary data was also used to collect current information on plastic pollution in Nepal. In particular, national and international laws and regulations regarding plastic waste and a clean and healthy environment were analysed for this purpose. Furthermore, data based on academic books, research articles, journals, organisational and government reports, and news articles are included in this study.

### 3.4 Data analysis

The collected data was analysed through thematic analysis. Thematic analysis is a method in which the researcher closely examines the data to identify recurring themes and patterns of meaning.<sup>116</sup> Braun and Clarke provide a framework for conducting this kind of data analysis, which consists of the following six stages: familiarising with data (1), generating initial codes (2), searching for themes (3), reviewing themes (4), defining and naming themes (5) and producing the report (6).<sup>117</sup>

In this framework, the gathered responses from the people living in riverside squatter settlements, the lawyers and judges, and the other stakeholders in the environmental field were sorted into categories to establish the connections between them and to analyse the similarities as well as the differences between the utterances of the three different groups of participants. The themes found represent the basis of the findings and the analysis presented in Chapter four.

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<sup>116</sup> Michelle Butina, 'A Narrative Approach to Qualitative Inquiry' (2015) 28 *American Society for Clinical Laboratory Science* 190.

<sup>117</sup> Virginia Braun and Victoria Clarke, 'Using Thematic Analysis in Psychology' (2006) 3 *Qualitative Research in Psychology* 77, 87.

### 3.5 Limitations of research

The major limitation met by the researcher while conducting this study concerns the language barrier because the researcher cannot speak Nepali. Therefore, a translator was needed to conduct the interviews with the people from the squatter settlements, which could have resulted in biased views and personal issues that affect the research.

Second, the number of squatters interviewed was relatively small compared to the overall number of households in the settlements; thus, the findings cannot be generalised and seen as representative of all riverside squatter settlements in Kathmandu. Nevertheless, the researcher is confident that a comprehensive understanding of the situation of the residents was captured, as they all share similar living circumstances.

Furthermore, in terms of the sample size of the other groups of research participants, it must be pointed out that only two persons representing the government of Nepal were willing to give an interview. The researcher contacted the Ministry of Forest and Environment (MoFE) and was requested to address the Department of Environment (DoEnv) “as plastic management is a technical matter and the Department (Environmental Inspector) looks after it”.<sup>118</sup> The MoFE is a government agency in Nepal responsible for forest conservation and environmental management. The Department of Environment serves under this ministry. All three DoEnv environment inspectors, as named on the website, were contacted. One person agreed to respond to the questions in writing. Another answer was that the person “may not be suitable for this interview”<sup>119</sup> and the third environmental inspector did not respond at all. As a consequence, only the DoEnv information officer and one environmental inspector provided information for this research. The last limitation refers to the time constraint of the study, as the researcher had only three months (May to July 2023) to complete the thesis.

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<sup>118</sup> Author personal e-mail communication (21 May 2023).

<sup>119</sup> Author personal e-mail communication, (7 June 2023).

### 3.6 Ethical consideration

The ethical approval process of the Mahidol University Institutional Review Board (MU-IRB) was undertaken prior to the commencement of data collection for this study. Furthermore, it was ensured that research participants would not be subjected to harm in any way as a result of their participation, and respect for the dignity of research participants would be prioritised. Before conducting the interviews, the research objectives were explained in detail, and it was pointed out that participation is completely voluntary. Moreover, participants had the right to withdraw from the study at any time.

The researcher obtained full consent from the interviewees prior to the study and ensured the protection of the privacy of participants as well as an adequate level of confidentiality of the research data. Therefore, during the field study, ethical issues were maintained throughout, and the data collection took place on the basis of informed consent.

## 4. Findings and Analysis

This chapter presents the key findings from the interviews conducted and compares and contrasts the primary data with secondary sources and the international and national legal framework. Thereby, the two research questions served as a foundation of this study, and the conceptual framework guided the process of data collection as well as analysis. In the following sections, the research questions will be answered by firstly outlining how plastic pollution impacts the right to a clean and healthy environment of the people living in the riverside squatter settlements of Kathmandu and, secondly, by identifying the response of the government of Nepal against plastic pollution. In this context, the chapter is divided into four sections. First, the viewpoints of the research participants on the current status of plastic pollution in Kathmandu are presented. Subsequently, a brief overview of the two squatter settlements from which residents were interviewed is given. This is followed by an explanation of plastic pollution's impacts on the procedural aspects of the right to a clean and healthy environment for squatters. Finally, the government's response to plastic pollution is outlined.

#### 4.1 The current challenges of plastic pollution in Kathmandu

In the interviews conducted, all experts agreed that the magnitude of the current plastic pollution poses serious challenges to both Kathmandu City and Nepal as a whole. The interviewees describe the problem of plastic pollution as “big”<sup>120</sup>, “horrible”<sup>121</sup> and “unregulated.”<sup>122</sup> Due to the growing plastic consumption and lack of management policies, plastic pollution has intensified, especially over the last few years in Kathmandu City.<sup>123</sup> Besides the extensive use of plastic items, the problem also lies in the lack of waste separation. It starts at the household level, as most people collect recyclable and non-recyclable waste together, but even in the next step, collection services do not provide separate waste collections.<sup>124</sup> For Adhikari, Saroja, from the DoEnv, the main problem is the lack of awareness of the local people. She points out that the municipality can only arrange proper management if people themselves separate the waste, but due to the people’s habits, they cannot make any plan.<sup>125</sup>

The waste collection in Kathmandu City is carried out by the private sector. There are 78 private companies involved in waste collection throughout the Kathmandu Valley, but their approach is very traditional. Most of the time, they simply collect the waste and dispose of it in the landfill.<sup>126</sup>

However, if you look slightly outside of Kathmandu, within the local governments, there are municipalities that are very keen on managing their waste in a proper way, as they also see it as a good revenue source. However, it must also be said that the volumes of garbage in these places are much lower than in

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<sup>120</sup> Interview with members of NGOs/ relevant stakeholders, Yunish Ghimire (Zoom, 22 May 2023).

<sup>121</sup> Interview with Lawers/Judges, Rupa Basnet (In person, 23 May 2023).

<sup>122</sup> Interview with Lawers/Judges, Raju Prasad Chapagain (in person, 26 May 2023).

<sup>123</sup> Interview with members of NGOs/ relevant stakeholders, Yunish Ghimire (Zoom, 22 May 2023).

<sup>124</sup> Interview with Lawers/Judges, Prof. Dr. Ravi Sharma Aryal (in person, 7 June 2023).

<sup>125</sup> Interview with members of NGOs/ relevant stakeholders, Saroja Ashikari (in person, 16 June 2023).

<sup>126</sup> Interview with members of NGOs/ relevant stakeholders, Rabindra Lamichhane (in person, 23 May 2023).

Kathmandu City and therefore easier to manage. The issue with larger communities is that there is a significant amount of politics and corruption involved because there are a lot of dynamics that come into play when you are managing a larger amount of waste.<sup>127</sup>

In addition, Panjiyar describes the situation as follows:

All the rivers and the sewage, everything is choked with plastic, and every field, the land, everywhere in every corner, you can see only the plastics. Looking at the context of Nepal, the single-use plastics is one of the biggest headache, also a global headache. And Nepal has another additional headache. That's the burning of plastics which is not practiced in the developed countries. And so air pollution linked with the human health and the direct plastic pollution is linked with the soil, water, and microplastics; everything is linked. So we are in a dire situation of plastic pollution at this moment.<sup>128</sup>

Another significant challenge is the end-of-life management of plastic. There are only some private companies that recycle polyethylene terephthalate (PET), but the government does not provide any support for these kinds of plastic recycling nor does it incentivise companies to start a business in recycling (PET is an extremely versatile plastic. In addition to beverage bottles, other food packaging and containers for medicines or cosmetic products are also produced from PET). Furthermore, there is no technological advancement to manage plastic waste in a proper manner. Therefore, low-grade plastic (plastics that are used to make single-use shopping bags, condiment sachets, confectionery wrappers and thin layers of packaging) has no value in Nepal and is exported to India.<sup>129</sup> Due to the open border between the two countries, this is feasible even though India has banned the import.<sup>130</sup>

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<sup>127</sup> Interview with members of NGOs/ relevant stakeholders, Pragyajan Yalamber Rai (in person, 16 June 2023).

<sup>128</sup> Interview with members of NGOs/ relevant stakeholders, Pankaj Panjiyar (in person, 21 May 2023).

<sup>129</sup> Interview with members of NGOs/ relevant stakeholders, Pankaj Panjiyar (in person, 21 May 2023).

<sup>130</sup> Cockburn, 'India Bans Imports of Waste Plastic to Tackle Environmental Crisis' (The Independent, 7 March 2019) <[www.independent.co.uk/climate-change/news/india-plastic-waste-ban-recycling-uk-china-a8811696.html](http://www.independent.co.uk/climate-change/news/india-plastic-waste-ban-recycling-uk-china-a8811696.html)> accessed 27 June 2023.

The people living in the settlements share the experts' assessment of plastic pollution, although partly based more on the appearance of the surroundings. Respondent 8 expresses: "I do think plastic causes environmental pollution because usually all other types of waste decay in the soil, but plastic does not, it is also ugly and makes the environment look ugly too".<sup>131</sup> Another squatter adds that "I do consider the environment being polluted by plastic. We used to have a routine environmental cleanup on Saturdays in our area, but now after Covid, due to inflation and unemployment, we had to focus on making money rather than on the environment".<sup>132</sup>

In the scope of this thesis, the focus is placed on a specific area in Kathmandu City, namely the riverside squatter settlements, to assess the impact of plastic pollution on the people living in these areas. Therefore, the following section contains general information about the two studied settlements for a better understanding of the living conditions of the people.

## 4.2 The Riverside squatter settlements in Kathmandu

As mentioned in the previous chapter, this research focused on two different squatter settlements along the riverside of Kathmandu City: the settlements of Sinamangal and Thapathali. Both settlements are located along the bank of Bagmati River but in two different parts of the city, about five kilometres apart.

### 4.2.1 Sinamangal settlement

The squatter settlement of Sinamangal is located in Ward 9<sup>133</sup> of Kathmandu City. People started to settle down informally along the bank of Bagmati River in about 2001. In the beginning, there were only about 12-14 houses, but today (2023), there are more than 600 houses, which stretch for about a kilometre along the riverside. The most common jobs of the people are as household workers, in catering services (cooking, serving food, washing

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<sup>131</sup> Interview with squatter settlement Respondent 8, Thapathali (in person, 16 June 2023).

<sup>132</sup> Interview with squatter settlement Respondent 2, Sinamangal (in person, 29 May 2023).

<sup>133</sup> Kathmandu city is divided into 32 administrative wards, numbered from 1 to 32. Previously, there were 35 wards.

dishes), and on construction sites (for both men and women). For a long time, most of the generated waste from the settlement was thrown into Bagmati River as there were no other waste management options, but in the last four to five years, waste pick-up services have also started to include this area. Once a week, the waste is collected by truck. The service is carried out by the private company Jagaran Waste Management and is controlled by KMC. This has resulted in an improvement in the cleanliness of the river and the settlement.<sup>134</sup> Concerning the living conditions in the settlement, the squatters describe: “The shelter we have is delicate, there is a rumour of evacuation, so we are in fear”.<sup>135</sup> Another person adds: “People who had some money made their house strong, but mine is right on the riverbank, and if there is a small flood, it will get destroyed.”<sup>136</sup>

*Figure 3 Squatter settlement in Sinamangal  
(Source: own photo by author)*



<sup>134</sup> Author personal communication with NMES (29 May 2023).

<sup>135</sup> Interview with squatter settlement Respondent 1, Sinamangal (in person, 29 May 2023).

<sup>136</sup> Interview with squatter settlement Respondent 3, Sinamangal (in person, 29 May 2023).

#### 4.2.2 Thapathali settlement

The squatter settlement of Thapathali is located in Ward 11 of Kathmandu City and was started a few years after the one in Sinamangal. In 2006 people started to live informally in this area. Until 2012, the settlement consisted of 258 houses; however, in the same year, there was an eviction by the government, and shelters were destroyed. For this reason, there are currently only 136 houses left. The main employment of the residents consists of daily-wage labour. There is no waste pick-up service from the Thapathali community; therefore, the people burn the plastic waste and try to make compost out of organic items.<sup>137</sup>

All four of the interviewed settlement residents mentioned that flooding during the rainy season is one of the main problems living in this area. Respondent 6 states that “in the rainy season, we usually experience fear all the time”.<sup>138</sup> Another challenge is the insecurity of a possible eviction which scares the people.<sup>139</sup> The people living in Thapathali feel completely neglected by the government. Respondent 9 compares them with another vulnerable community by saying:

You have heard about Bhutanese refugees, right? The government has been taking care of them, but we, as citizens, as voters, are not well taken care of. They have not given us even a packet of Cetamol tablets. We are staying as a citizen of a third country.<sup>140</sup>

The main difference between the two squatter settlements is that in Sinamangal, as opposed to Thapathali, there is an official waste collection system. This contrast naturally affects the impact of plastic pollution on people’s right to a clean and healthy environment and also their perceptions about it.

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<sup>137</sup> Author personal communication with NMES (16 June 2023).

<sup>138</sup> Interview with squatter settlement Respondent 6, Thapathali (in person, 16 June 2023).

<sup>139</sup> Interview with squatter settlement Respondent 7, Thapathali (in person, 16 June 2023).

<sup>140</sup> Interview with squatter settlement Respondent 9, Thapathali (in person, 16 June 2023).

Figure 4: Squatter settlement in Thapathali



(Source: own photo by author)

### 4.3 Impact of plastic pollution on the right to a clean and healthy environment

Article 30(1) of the Nepalese Constitution of 2015 guarantees: “Each person shall have the right to live in a healthy and clean environment”. This legal provision includes all citizens of Nepal and does not differentiate by place of residence or life circumstance. Basnet points out that: “Just because they [the squatters] are settling illegally doesn’t mean they don’t have rights. They do have a legal right. So that legal right needs to be addressed because it’s already addressed in the Constitution”.<sup>141</sup>

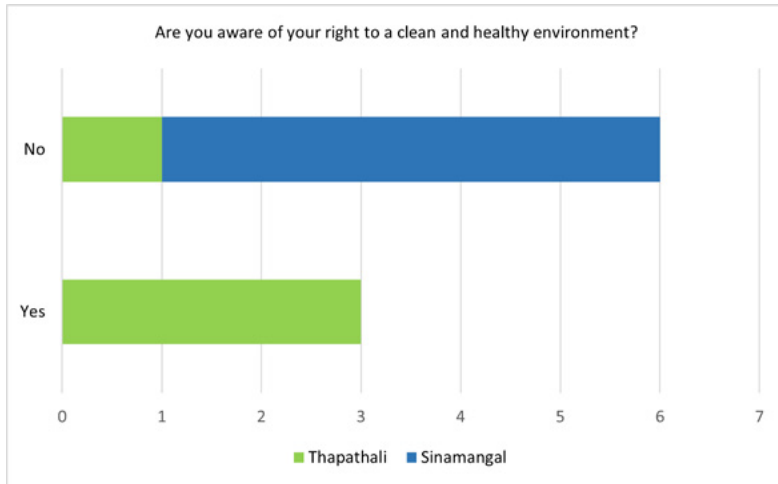
Chapagain refers to “double victimisation”. On the one hand, poverty is forcing the squatters to live along the riverbanks, which is an unsafe place. On the other hand, the government treats them as illegal settlers and does not provide even basic services like drinking water or electricity. Furthermore, he mentions that the people are always facing the fear of eviction. Housing and tenure are not secured, although homelessness is itself a serious human rights violation.<sup>142</sup>

<sup>141</sup> Interview with Lawyers/Judges, Rupa Basnet (In person, 23 May 2023).

<sup>142</sup> Interview with Lawyers/Judges, Raju Prasad Chapagain (In person, 26 May 2023).

During the interviews, the squatter settlers were asked whether they are aware of their right to a clean and healthy environment. The response turned out to be very different across the two settlements, which is illustrated in the graphic below.

*Figure 5: Display of knowledge about the right to a clean and healthy environment*



*(Source: own figure by author)*

In Sinamangal, none of the respondents had ever heard about the right. They all answered in a similar way: “No, I do not know about this right”.<sup>143</sup> In Thapathali, however, everyone except one person knows about the right or has heard about it before. Respondent 6 was the only one from Thapathali who answered in the negative.<sup>144</sup> Respondent 7 says: “Yes, I knew about my right

<sup>143</sup> Interview with squatter settlement Respondent 1-5, Sinamangal (In person, 29 May 2023).

<sup>144</sup> Interview with squatter settlement Respondent 6, Thapathali (in person, 16 June 2023).

through the news. I do not know in detail”,<sup>145</sup> and Respondent 9 states that: “I knew there are fundamental rights that could not be curtailed, and it is one of the fundamental rights”.<sup>146</sup> The fourth person interviewed from Thapathali elaborates in more detail:

Yes, I do know about the fundamental right to a clean and healthy environment. The environment is not private, it is equal to everyone. If it is clean, it will benefit us. But even though we know this, it is limited only to knowledge, and we cannot bring it to reality because it is hard. It is difficult to make people understand, and even if we try, the information that we provide has no validity. But if an organization comes and does a program here, it can be effective since everyone knows. Because my single effort cannot work here in most scenarios. Thus, through the news, I got to know that environmental protection is my responsibility too.<sup>147</sup>

The reason for this discrepancy is not obvious; it may simply be due to the relatively small sample size of respondents. Another possibility would be that the residents of Thapathali are currently more concerned with the issue because, unlike Sinamangal, they do not benefit from a waste collection system. On this topic, Respondent 9 says: “We do not have a government waste management system here to date. We have asked them so many times, even though we have told them to pay the same amount as others. So, we use our own rational and dispose of them”.<sup>148</sup> This challenge is reflected in the following statement: “I know different types of waste. We burn the plastics, and others decay, even if we just throw them in our kitchen garden. It acts like compost. Plastic is a danger. If we burn it, it affects us. We know that, but if we don’t burn it, where do we throw it?”<sup>149</sup> For this reason, it can be concluded that the residents of Thapathali face a greater environmental challenge as they alone are responsible for their own waste disposal.

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<sup>145</sup> Interview with squatter settlement Respondent 7, Thapathali (in person, 16 June 2023).

<sup>146</sup> Interview with squatter settlement Respondent 9, Thapathali (in person, 16 June 2023).

<sup>147</sup> Interview with squatter settlement Respondent 8, Thapathali (In person, 16 June 2023).

<sup>148</sup> Interview with squatter settlement Respondent 9, Thapathali (in person, 16 June 2023).

<sup>149</sup> Interview with squatter settlement Respondent 6, Thapathali (in person, 16 June 2023).

Lamichhane also discusses in the interview that the government usually does not recognise the squatters because they are informal settlements. Hence, the waste collection companies do not want to pick up waste there, which is one of the big challenges.<sup>150</sup>

The squatters from Sinamangal mention that before the waste collection system, their area was more polluted because they “used to dispose of all kinds of waste in the river”.<sup>151</sup> Therefore, in the context of the right to a clean environment, the squatters in Sinamangal are slightly less affected since they are at least supported in waste management.

A common challenge that people from both settlements struggle with is how they are perceived by others, especially in terms of cleanliness and the cause of river pollution. A squatter from Thapathali says:

People throw waste in the river, and that somehow makes the area so dirty, but they blame us for making the area dirty. People have negative notions towards us; no matter how much we are educated, their notion never changes. The area used to be so dirty, but we are trying our level best to keep it clean [...]. People do not realize how much we have been cleaning the area with handwork and patience. Neither government recognized us. In these 17 years that we have lived here, though, we have made a lot of efforts.<sup>152</sup>

The same perspective is also shared by a person from Sinamangal:

Actually, the waste collection system that we have in our area was only enforced after the collective efforts of the people from our area. We are usually called dirty by people and are slammed that we cause pollution near the river, but the truth is that well-established people dispose of the waste to the river and call us dirty instead.<sup>153</sup>

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<sup>150</sup> Interview with members of NGOs/ relevant stakeholders, Rabindra Lamichhane (In person, 23 May 2023).

<sup>151</sup> Interview with squatter settlement Respondent 2, Sinamangal (in person, 29 May 2023).

<sup>152</sup> Interview with squatter settlement Respondent 6, Thapathali (in person, 16 June 2023).

<sup>153</sup> Interview with squatter settlement Respondent 2, Sinamangal (in person, 29 May 2023).

However, these statements are also opposed by the contrary views of the experts interviewed, who are of the opinion that the settlers also dispose of plastic waste in the river and thus also contribute to the pollution of their own living environment.<sup>154</sup>

Naturally, it can be assumed that the environment is negatively affected by the inhabitation of the river banks, but the question arises as to what other possibilities there are for all the squatter settlements in Kathmandu City. Respondent 3 states that: “The government is always talking about evicting the settlements. If they could evacuate us safely, it would have been great since we have nowhere to go by ourselves.”<sup>155</sup> The interviewed environmental inspector represents the perspective that the squatter settlement needs to be resettled to another site. She says: “This not only ensures the right to a clean and healthy environment of people but also provides the space for river too”.<sup>156</sup>

What is certain, though, is that in order to fully guarantee the right to a clean environment for the people, the government definitely needs to improve its work. Even employees of the government itself are of this opinion and say: “The right to a clean and healthy environment has been included in the constitution to ensure a safe environment for people to live in. However, the implementation mechanism is weak to make it achievable”.<sup>157</sup>

In order to discuss the realisation of the right to a clean and healthy environment in more depth, the procedural aspects of this right, which form the framework of this thesis, are discussed in more detail in the next section.

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<sup>154</sup> Interview with members of NGOs/ relevant stakeholders, Dr. Surya Prasad Sharma Dhungel (in person, 30 May 2023); Interview with members of NGOs/ relevant stakeholders, Rabindra Lamichhane (in person, 23 May 2023).

<sup>155</sup> Interview with squatter settlement Respondent 3, Sinamangal (in person, 29 May 2023).

<sup>156</sup> Interview with members of NGOs/ relevant stakeholders, Tika Regmi (email, 30 June 2023).

<sup>157</sup> *ibid.*

### 4.3.1 Procedural environmental rights

According to the UN Special Rapporteur on human rights and the environment Boyd, the right to a healthy environment includes three procedural elements. First, access to environmental information; second, participation in environmental decision-making and third, access to justice and effective remedy.<sup>158</sup>

#### The right to environmental information

The right to information under international law has its roots in Article 19 of the UDHR and in Article 19 (2) of the ICCPR. It gives the general public and civil society access to information maintained by public agencies and gives them the power to hold their leaders accountable.<sup>159</sup> In Nepal, the Constitution of 2015 also guarantees this right under Article 27, indicating that “Every citizen shall have the right to seek information on any matters of concern to her/him or the public”. Furthermore, in 2007 the government enacted the Right to Information Act, 2064 BS (2007) to provide citizens with simple and easy access to information of public importance held in public institutions. Through the interviews in the settlements, it was found that people have a basic knowledge of the environment. The majority confirmed that they know the different types of waste and how to separate them. However, they do not have the means to do so.<sup>160</sup> The three youngest respondents explain that they learned about plastic pollution in school.<sup>161</sup> Others indicate that they know about it from “collective discussion in the area”<sup>162</sup> and from “the people around and read about it at some point”.<sup>163</sup> Respondent 9 says: “Yes, I knew plastic causes pollution. It is knowledge that we gain as we grow

<sup>158</sup> David Boyd, ‘Right to a Healthy Environment: Good Practices - Report of the Special Rapporteur on the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment’ (2019) A/HRC/43/53 <<https://documents-dds-ny.un.org/doc/UNDOC/GEN/G19/355/14/PDF/G1935514.pdf?OpenElement>> accessed 2 March 2023.

<sup>159</sup> UN, ‘Freedom of Information’ (United Nations and the Rule of Law, 2019) <[www.un.org/ruleoflaw/thematic-areas/governance/freedom-of-information/](http://www.un.org/ruleoflaw/thematic-areas/governance/freedom-of-information/)> accessed 29 June 2023.

<sup>160</sup> Interview with squatter settlement Respondent 6, Thapathali (in person, 16 June 2023).

<sup>161</sup> Interview with squatter settlement Respondent 4/5, Sinamangal (in person, 29 May 2023); Interview with squatter settlement Respondent 7, Thapathali (in person, 16 June 2023).

<sup>162</sup> Interview with squatter settlement Respondent 2, Sinamangal (in person, 29 May 2023).

<sup>163</sup> Interview with squatter settlement Respondent 1, Sinamangal (in person, 29 May 2023).

up”.<sup>164</sup> This shows that the people gained all their environmental information either while growing up or due to exchange with other people. The knowledge is picked up incidentally. Furthermore, people learn about it due to their own experiences. Respondent 6 mentions: “When we burned the plastic items, a lot of people got sick thus, we got to know that plastic affects us. Cough, cold, and throat ache were common things we experienced. I do not know other ways it affects us”.<sup>165</sup> However, the right to information mainly stands for enabling the public to access information held by government bodies. Although Nepal has a Right to Information Act, implementation is lacking, as in many places around the world. As a result, the potential of these laws for inclusive development and good governance remains underutilised. This is partly due to a knowledge gap between authorities and the public: On the one hand, the main obstacles to the implementation of the Right to Information laws are a lack of infrastructure and political will, complicated by the long-standing customs of secrecy within public institutions. On the other hand, the public and other stakeholders are often unaware of the relevance of the law. In addition, there is a lack of understanding of the existing procedures for requesting data from government agencies.<sup>166</sup>

This fact can also be observed in the settlements. Therefore, awareness must be raised on both sides, rights-holders, and duty-bearers, so that the right to information leads to actions for positive change in dealing with the environment.

The right to participation in environmental decision-making processes

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<sup>164</sup> Interview with squatter settlement Respondent 9, Thapathali (in person, 16 June 2023).

<sup>165</sup> Interview with squatter settlement Respondent 6, Thapathali (in person, 16 June 2023).

<sup>166</sup> Gerwin De Roy, ‘Right to Information Laws: Where Do We Stand?’ (DW Akademie, 2019) <[www.dw.com/en/right-to-information-laws-where-do-we-stand/a-48812029](http://www.dw.com/en/right-to-information-laws-where-do-we-stand/a-48812029)> accessed 1 July 2023.

Meaningful public participation in decision-making is a human right that must be defended and strengthened, especially in times of crisis.<sup>167</sup> It includes that the general public should be given a genuine opportunity to learn about environmental issues and express their opinions and that their suggestions should be considered when making decisions.<sup>168</sup>

In terms of whether the people living in the squatter settlements can participate in decision-making processes regarding the environment, the majority feel that they do have the power to make decisions, but only in relation to their own actions with no ability to influence government policy. This is evident in the settlers' statements because they always relate the answer of whether they feel they have a right to participate in decisions to their own actions. Respondent 1 replies, "For our own cleanliness and hygiene, I think I can take decisions"<sup>169</sup> and Respondent 8 says: "Yes, I think I can make a decision relating to environmental protection. I think we all need to work on environmental protection, but if I start from me, others will learn by seeing and start to think and do."<sup>170</sup> However, the fact that the people have no input into the government's actions on environmental issues is also reflected in the following statement: "For the big decisions, I think I cannot because I am not educated, but for the small things I think I can take decisions".<sup>171</sup>

From the NGO perspective, it was mentioned that the people are living illegally along river corridors, as it is mainly government land, and therefore, they cannot protest. Ghimire expresses: "I mean, they can, but since they are already living there illegally, they cannot raise their concern about pollution and all those things".<sup>172</sup> Furthermore, he also explains that often environmental issues become secondary because the primary concern is getting

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<sup>167</sup> OHCHR, 'Right to Participation Matters More than Ever: UN Secretary-General' (OHCHR, 2020) <[www.ohchr.org/en/stories/2020/09/right-participation-matters-more-ever-un-secretary-general](http://www.ohchr.org/en/stories/2020/09/right-participation-matters-more-ever-un-secretary-general)> accessed 29 June 2023.

<sup>168</sup> UNEP, 'What Are Environmental Rights?' (UNEP - UN Environment Programme, 2 March 2018) <<http://www.unep.org/explore-topics/environmental-rights-and-governance/what-we-do/advancing-environmental-rights/what>> accessed 2 March 2023.

<sup>169</sup> Interview with squatter settlement Respondent 1, Sinamangal (in person, 29 May 2023).

<sup>170</sup> Interview with squatter settlement Respondent 8, Thapathali (in person, 16 June 2023).

<sup>171</sup> Interview with squatter settlement Respondent 2, Sinamangal (in person, 29 May 2023).

<sup>172</sup> Interview with members of NGOs/ relevant stakeholders, Yunish Ghimire (Zoom, 22 May 2023).

food on the table. Therefore, it is necessary to make the squatters realise that a safe and healthy environment is also a fundamental right that has been given through the Constitution. Therefore, they can gain the knowledge that they also have the right to raise their voice and demand for fairer treatment and equal consideration. But at the moment, mainly because of their illegal settlements and lack of socioeconomic power, Ghimire thinks that “they are suffering from pollution much more than other people, and they do not have a platform to speak about these issues”.<sup>173</sup>

It is a positive finding in the context of human rights that the people living in the settlements consider their own responsibility towards keeping the environment clean and believe that this allows them to participate. However, their influence must also be strengthened at the policy level, and consultations should be held with the most affected parties to ensure the equitable inclusion of all citizens of Nepal in environmental decision-making processes.

#### The right to effective legal remedies and access to justice

Access to justice and the right to effective remedy through law are related to the management and enforcement of rights. Several general human rights conventions include the right to effective legal remedies, such as Article 2 (3) of the ICCPR. In the country context of Nepal, this right is also enshrined in Article 30 (2) of the Constitution of 2015, stating: “The victim of environmental pollution and degradation shall have the right to be compensated by the pollutant as provided for by law”. This provision refers to the polluter pays principle (PPP), meaning that polluters are responsible for paying for both the societal costs associated with pollution as well as steps to avoid, control, and remediate it.<sup>174</sup>

Dhungel points out that, although this principle is firmly established in Nepalese legislation, there is no implementation mechanism. As a result, people are not compensated for the damage caused due to the polluted environment on their health, on their adequate housing, or on their livelihood. He gives an example concerning the people living in squatter settlements by saying that whole squatters living along this Bishnumati River could go

<sup>173</sup> Interview with members of NGOs/ relevant stakeholders, Yunish Ghimire (Zoom, 22 May 2023).

<sup>174</sup> Abhishek Gaur, Suresh Kumar Gurjar and Sangeeta Chaudhary, ‘22 - Circular System of Resource Recovery and Reverse Logistics Approach: Key to Zero Waste and Zero Landfill’ in Chaudhery Hussain and Subrata Hait (eds), *Advanced Organic Waste Management* (Elsevier 2022) <[www.sciencedirect.com/science/article/pii/B9780323857925000083](http://www.sciencedirect.com/science/article/pii/B9780323857925000083)>.

to court as a group to claim their collective rights against the municipality or the MoFE. They could file a lawsuit as the government does not consider their right to a clean environment, which is a part of human rights and the fundamental right to life, their right to health, and their right to adequate housing in a sufficient manner. However, as there is no mechanism in place, there is “hardly any case that has allowed or enabled citizens to get compensation from a state agency or polluter.”<sup>175</sup> Therefore, to understand and assess the nature of the damage, an institutional mechanism such as an environmental resource centre is needed to ensure the right to an effective remedy, according to Dhungel.<sup>176</sup>

Ghimire, also shares a similar point of view and explains that even though the constitution specifies that the pollutant should compensate the victim of environmental pollution and degradation, there are a lot of grey spaces around this area, for example, who are the pollutants? How are you going to identify the pollutants? And how do you determine an amount to be compensated to the victims? So, there are a lot of questions, and the Constitution has not been very clear regarding this matter. However, he believes that it is a good start, but there haven’t been any clear guidelines to follow these as of now.<sup>177</sup>

All interviewed people from Thapathali as well as Sinamangal have the same opinion and feel that the government is not improving their situation. Respondent 8 describes the action of the government as follows:

I do not think the government is doing anything. Yes, it has made a lot of organisations and committees, but it is only a medium to appoint staff because in environment-related things, you must go into the field and work. It cannot be resolved by sitting in the office and talking about theories and approaches [...]. These efforts that have been made are just a show and a place for nepotism. With collective efforts and good management, I think it is not hard. If the government really wants, it is not a long process, it can be solved within a month.<sup>178</sup>

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<sup>175</sup> Interview with members of NGOs/ relevant stakeholders, Dr. Surya Prasad Sharma Dhungel (in person, 30 May 2023).

<sup>176</sup> *ibid.*

<sup>177</sup> Interview with members of NGOs/ relevant stakeholders, Yunish Ghimire (Zoom, 22 May 2023).

<sup>178</sup> Interview with squatter settlement Respondent 8, Thapathali (in person, 16 June 2023).

In terms of the realisation of the right to effective legal remedies and access to justice, the study found that this procedural environmental right is not fulfilled for the people living in riverside settlements. Especially also considering the squatters from Thapathali, as they are not included in the waste collection scheme of Kathmandu City, which clearly hinders their access to justice in comparison with other citizens.

The extent to which justice prevails with regard to environmental pollution in Kathmandu will be discussed in more detail in the next chapter.

#### 4.3.2 Environmental justice

UNEP Executive Director, Inger Andersen, also builds the connection between EJ, the three procedural rights included in the right to a clean and healthy environment, and plastic pollution by stating that “environmental justice means educating those on the frontlines of plastic pollution about its risks, including them in decisions about its production, use, and disposal, and ensuring their access to a credible judicial system”.<sup>179</sup>

Basnet stated that in Nepal: “We don’t have environmental justice. It’s a concept that is brought from the USA.” She further elaborated that from a Nepalese perspective, EJ is the dependency on the livelihood that needs to be ensured because 80% of the country’s population are rural people who live in the villages and are dependent on the environment.<sup>180</sup> Adhikari, Sanjay shares this point of view and explains that most people in Nepal understand EJ as the justice that should be given to the environment, like justice for “Mother Earth” and protection of her sacredness, but not as the equal treatment of all people in terms of environmental impacts.<sup>181</sup> However, according to Ghimire, environmental justice is a fairly new concept in Nepal. Therefore, he thinks that the country has not been able to pursue the concept of EJ in a more

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<sup>179</sup> UNEP, ‘Plastic Pollution Is an Environmental Injustice to Vulnerable Communities – New Report’ (UN Environment, 30 March 2021) 1 <<http://www.unep.org/news-and-stories/press-release/plastic-pollution-environmental-injustice-vulnerable-communities-new>> accessed 5 March 2023.

<sup>180</sup> Interview with Lawyers/Judges, Rupa Basnet (in person, 23 May 2023).

<sup>181</sup> Interview with Lawyers/Judges, Sanjay Adhikari (in person, 6 June 2023).

full-fledged way as it is just in a very early and nascent stage. Nevertheless, he pointed out that in the future, it can be used as a tool to help vulnerable and marginalised communities against some of the environmental injustices.<sup>182</sup>

In the expert interviews, the question was raised whether plastic pollution affects all people living in Kathmandu City equally. Depending on the respondent's approach to the question, the answers differed. According to Chapagain, pollution always has a disproportionate effect on certain groups, such as children, senior citizens, women, and other communities like informal settlers. They are affected very much by pollution, which is a social justice issue.<sup>183</sup> Ghimire agrees with that point by stating that in some socioeconomically better parts of Kathmandu City, there is not even a single plastic item lying around on the streets, but in some of the poorer parts of the city, plastic pollution is really prevalent.<sup>184</sup> Panjiyar differentiates between a direct and indirect recipient of the impact. For example, the people living on the bank of rivers are directly affected due to the plastic waste floating in the rivers and ending up around their houses. To get rid of these plastics, they begin to burn them. This contributes to air pollution, which then, in turn, affects everyone, including the upper class of the population. Therefore, they are also impacted by plastic pollution as indirect receivers.<sup>185</sup> In that sense, considering the burning of plastic and the resulting air pollution, all people in Kathmandu, rich and poor, breathe the same atmospheric oxygen.<sup>186</sup> Especially the people living in Thapathali settlement are also aware of these consequences. One of the interviewed squatters says that "plastic is cursing environmental pollution because there is very poor management. I am just not talking about our area; plastic is burned in the big areas too. It's not that if we burn, it's only us who will get affects its vice versa".<sup>187</sup>

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<sup>182</sup> Interview with members of NGOs/ relevant stakeholders, Yunish Ghimire (Zoom, 22 May 2023).

<sup>183</sup> Interview with Lawyers/Judges, Raju Prasad Chapagain (in person, 26 May 2023).

<sup>184</sup> Interview with members of NGOs/ relevant stakeholders, Yunish Ghimire (Zoom, 22 May 2023).

<sup>185</sup> Interview with members of NGOs/ relevant stakeholders, Pankaj Panjiyar (in person, 21 May 2023).

<sup>186</sup> Interview with Lawyers/Judges, Prof. Dr. Ravi Sharma Aryal (in person, 7 June 2023).

<sup>187</sup> Interview with squatter settlement Respondent 9, Thapathali (in person, 16 June 2023).

Ghimire mentioned another example concerning the unequal impact of pollution is the waste disposal from Kathmandu Valley. Most of the waste is dumped at the Sisdol landfill site in Nuwakot district (since 2022, Banchare Danda landfill site has also been in operation, however the location is next to Sisdol area and the same environmental issues occur). Kathmandu City had an agreement to use the landfill site for ten years, after which it was to look for other landfill sites. However, it has been around 20 years of waste dumping up to now, and the people living around that area are mostly farmers. Since it's a rural area and people do not have a platform to raise their voices. Even though their agricultural lands have been diminished, people are suffering from different health issues. Nevertheless, the waste from Kathmandu Valley, which is a more affluent part of Nepal, is dumping its waste on more vulnerable people.<sup>188</sup> This is a prime example of how pollution does not affect everyone equally. In addition, high- and middle-income people contribute more to pollution than low-income and marginalised people, as most plastic pollution comes from the packaging industry. Panjiyar describes it as follows: They [the upper-class people] say not in my backyard. I throw the plastic, it goes into the river. The people living around me suffer. I don't care. It's kind of that attitude".<sup>189</sup>

According to Adhikari, Sanjay:

Environmental justice can only be achieved after there is a behavioural change. Sometimes it can be moral. Sometimes it should be legal. And that does not mean only when you commit the duty. It also means when you omit the duty. If a plastic producer gives you the plastic, you, as a consumer, should be aware that you should not be taking it. So if you omit your duty and if you take it, you are the ommitter, and you can't say I did not do anything. The shopkeeper will say, what can I do? The consumer came and asked for it, so I should fulfil the demand. [The] criminal code [of Nepal] says that commission and omission of duty both are criminal offenses. So this should also be applied in relation to plastic.<sup>190</sup>

<sup>188</sup> Interview with members of NGOs/ relevant stakeholders, Yunish Ghimire (Zoom, 22 May 2023).

<sup>189</sup> Interview with members of NGOs/ relevant stakeholders, Pankaj Panjiyar (in person, 21 May 2023).

<sup>190</sup> Interview with Lawyers/Judges, Sanjay Adhikari (in person, 6 June 2023).

Therefore, understanding the concept of EJ in the context of Nepal means, on the one hand, raising awareness among the population that no one should be disproportionately affected by pollution and environmental degradation and, on the other hand, strengthening everyone's actions to ensure a clean and healthy environment for all citizens.

#### 4.4 The response of the government of Nepal against plastic pollution

Since the local government is responsible for plastic waste management in Nepal, the plastic waste management scenario is very fragmented, according to Ghimire.<sup>191</sup> Lamichhane adds that policies vary across local authorities because although there is the Solid Waste Management Act 2068 BS (2011) that applies throughout Nepal, local governments develop their own policies based on this law and apply it flexibly, which can lead to negative consequences for the environment depending on the value that local stakeholders place on environmental protection.<sup>192</sup> According to Chapagain:

Environmental protection is a collective responsibility. Local government, provincial government and federal government, also because they have the power to regulate. But there is no such activism from the side of authorities. There is a compliance crisis, and it's a very low-priority issue. That's why people don't consider [pollution] like a crime, environmental crime, or crime against nature. It's very much generalized.<sup>193</sup>

All study participants, even the two government officials themselves, agree that the government's measures to tackle plastic pollution are not sufficient. This can be derived from the statements below. Ghimire explains the response of the government in the following way:

<sup>191</sup> Interview with members of NGOs/ relevant stakeholders, Yunish Ghimire (Zoom, 22 May 2023).

<sup>192</sup> Interview with members of NGOs/ relevant stakeholders, Rabindra Lamichhane (in person, 23 May 2023).

<sup>193</sup> Interview with Lawyers/Judges, Raju Prasad Chapagain (in person, 26 May 2023).

We don't even have a single mention of plastic in our policies. So how can we expect a robust mechanism to manage plastic pollution? And especially I have had a conversation with a few of the government officials regarding plastic waste, and they do not even understand what are the types of plastics or the concept of recycling. They do not have any knowledge regarding this. So, for now, we can say that the response of the government has been really non-existent regarding plastic pollution.<sup>194</sup>

The same perception was also shared by Sharma: “Many times, the executor or the public servants, and especially the administrative staff, are not eager to honour the [environmental] rights”<sup>195</sup> and Panjiyar contributes: “We are very frustrated with these bureaucrats”.<sup>196</sup>

As already mentioned in the previous chapter, all people living in the riverside squatter settlements share the same opinion that the government is not doing anything to preserve their environment. Respondent 7 opines: “For the environment, the government is only separating budgets but hasn't been really working. It is destroying our heritage instead”.<sup>197</sup>

In that context, Rai mentions that the MoEF and the DoEnv, which oversee these issues, take measures, but they never comply with them. One reason is that they do not have as much authority as other ministries, and another is that they do not have enough human resources.<sup>198</sup>

The representative of the DoEnv, Adhikari, Saroja, agrees and explains:

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<sup>194</sup> Interview with members of NGOs/ relevant stakeholders, Yunish Ghimire (Zoom, 22 May 2023).

<sup>195</sup> Interview with Lawyers/Judges, Prof. Binod Prasad Sharma (in person, 5 June 2023).

<sup>196</sup> Interview with members of NGOs/ relevant stakeholders, Pankaj Panjiyar (in person, 21 May 2023).

<sup>197</sup> Interview with squatter settlement Respondent 7, Thapathali (in person, 16 June 2023).

<sup>198</sup> Interview with members of NGOs/ relevant stakeholders, Pragyajan Yalamber Rai (in person, 16 June 2023).

In our department, we don't have sufficient manpower. Most of [the employees] are not technical staff. They are administrative, they are helpers, drivers, everything. And with our director general all together, we are 53, and this number is not sufficient to control all of Nepal with all the environmental issues.<sup>199</sup>

Besides the lack of workforce, the government budget allocated to environmental protection is also insufficient because the existing infrastructure, for example, for waste management, has to be expanded, and that requires a lot of funding.<sup>200</sup> According to Regmi, for this year 2023/24, NPRs 15.56 billion has been allocated for MoFE, a slightly higher amount than in the previous year. For 2022/23, it was divided into two sections, NPRs 2.17 billion for the President Chure Conservation Program and NPRs 13 billion for the MoFE (the program's objective is to protect the natural resources of the Chure region, which makes up 12.78% of Nepal, through ecological service promotion and sustainable resource management).<sup>201</sup> In contrast, the Ministry of Physical Infrastructure and Transport received NPRs 131.59 billion and the Ministry of Urban Development NPRs 66.17 billion.<sup>202</sup> This shows that the government's focus is on development policy and not on addressing environmental concerns, although sustainable development and preservation of the planet for humanity can only be achieved in harmony with both.<sup>203</sup>

An important role in considering the government's response also includes the country's legislation and the extent to which environmental issues are taken into account. For this reason, the next section discusses the applicability and effectiveness of environmental laws in Nepal.

<sup>199</sup> Interview with members of NGOs/ relevant stakeholders, Saroja Ashikari (in person, 16 June 2023).

<sup>200</sup> *ibid.*

<sup>201</sup> Interview with members of NGOs/ relevant stakeholders, Tika Regmi (E-mail, 30 June 2023).

<sup>202</sup> Sangay Sherpa, 'Budget of 1.751 Trillion Unveiled for 2023-24' (The Himalayan Times, 30 May 2023) <<https://thehimalayantimes.com/nepal/budget-of-1751-trillion-unveiled-for-2023-24>> accessed 1 July 2023.

<sup>203</sup> AP Thirlwall, 'Development and the Environment' in AP Thirlwall (ed), *Growth and Development: With Special Reference to Developing Economies* (Macmillan Education UK 1994) <[https://doi.org/10.1007/978-1-349-23195-9\\_9](https://doi.org/10.1007/978-1-349-23195-9_9)>.

#### 4.4.1 Implementation of the environmental laws

According to Chapagain, plastic-related pollution in Nepal is not because there is a lack of a treaty. There are “good constitutional provisions and good laws”, but internalising them and enforcing them in a genuine way is a problem. He further elaborates that: “At least we have a textual guarantee. But a long way to go to translate that into reality. We need to review our legislation in light of the right to a clean environment and other obligations in relation to the environment”.<sup>204</sup> Basnet shares this standpoint and states: “There are laws, there are very wonderful laws, but we lack in the implementation aspect”.<sup>205</sup>

Dhungel considers the lack of awareness among political actors responsible for dealing with policy issues, as well as the absence of proper leadership, civil society involvement, institutional commitment, and enforcement, to be the key issues preventing some of the core constitutional and legal provisions from being effectively implemented.<sup>206</sup>

Enforcement of environmental protection measures can be compared to compliance with traffic regulations and their monitoring by traffic police. Nepal introduced strict rules regarding compulsory helmets for motorbike drivers, zero tolerance for alcohol consumption while driving, and a prohibition of using horns inside the city. In the event of non-compliance, fines are issued immediately, and control by police officers is guaranteed throughout Kathmandu. Due to these strict regulations, behavioural changes of the citizens could be noticed, and it shows that implementation of new policies is possible if the concrete intention is there. Therefore, the same types of surveillance mechanism from the government regarding how to forcefully convince people not to litter or burn waste is necessary.<sup>207</sup>

Panjiyar has already suggested to the environment ministry to create jobs as so-called environmental warriors when asked how to create more jobs for marginalised people. In each locality, he explained, 100 people can be employed on a basic salary, as they don’t have to do much but simply issue a fine receipt to

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<sup>204</sup> Interview with Lawyers/Judges, Raju Prasad Chapagain (in person, 26 May 2023).

<sup>205</sup> Interview with Lawyers/Judges, Rupa Basnet (in person, 23 May 2023).

<sup>206</sup> Interview with members of NGOs/ relevant stakeholders, Dr. Surya Prasad Sharma Dhungel (in person, 30 May 2023).

<sup>207</sup> Interview with members of NGOs/ relevant stakeholders, Rabindra Lamichhane (in person, 23 May 2023); Interview with members of NGOs/ relevant stakeholders, Pan-kaj Panjiyar (in person, 21 May 2023).

whoever throws their garbage on the street or in the river. This fine, in turn, would provide the revenue to run this fraternity itself. This would create hundreds of jobs, provide a clean environment and generate revenue as a self-sustaining system. However, the government has not yet implemented this supposedly simple idea.<sup>208</sup> It shows that although there are proposals and possibilities for improvement, the government's commitment to environmental protection is clearly lacking. Based on the interviews conducted, it is evident that the government prioritises economic development, which often does not take into account the impact on the environment.<sup>209</sup>

All of the interviewed lawyers agree that in order to take the impact on the environment under consideration, it is necessary to perform an Environmental Impact Assessment (EIA) before conducting any development projects.<sup>210</sup> This requirement is already mandatory by law in Nepal. According to Article 2 (v) of the Environment Protection Act 2076 BS (2019):

“Environmental Impact Assessment” means detailed a study and evaluation to be made to ascertain as to whether, in implementing a proposal, the proposal does have significant adverse impacts on the environment or not, and as to the measures to be adopted for avoiding or mitigating such impacts.<sup>211</sup>

Chapagain states that the EIA is a globally recognised tool to enforce the right to a clean and healthy environment, but the enforcement is very weak in Nepal. It is only considered as a procedural step that projects need to comply with, but not as a reasonable necessity as the environment needs to be protected. He further added that there is “no genuine compliance, just mechanical compliance to generate evidence that shows that [the project] complied with [EIA]”.<sup>212</sup>

<sup>208</sup> Interview with members of NGOs/ relevant stakeholders, Pankaj Panjiyar (in person, 21 May 2023).

<sup>209</sup> Interview with Lawyers/Judges, Rupa Basnet (in person, 23 May 2023); Interview with Lawyers/Judges, Prof. Binod Prasad Sharma (in person, 5 June 2023).

<sup>210</sup> Interview with Lawyers/Judges, Rupa Basnet (in person, 23 May 2023); Interview with Lawyers/Judges, Sanjay Adhikari (in person, 6 June 2023); Interview with Lawyers/Judges, Raju Prasad Chapagain (in person, 26 May 2023).

<sup>211</sup> Anup Raj Upreti, ‘Environment Protection Act, 2076 (2019)’ (Pioneer Law Associates, 2022) <<https://pioneerlaw.com/resource/environment-protection-act-2076-2019/>> accessed 22 June 2023.

<sup>212</sup> Interview with Lawyers/Judges, Raju Prasad Chapagain (in person, 26 May 2023).

An example of this low enforcement practice by the government is the EIA of the proposed international airport in Nijgadh, located 175 km south of Kathmandu. In May 2018, the MoFE approved the construction, even though building the airport will necessitate the removal of 2.4 million trees from one of Nepal's last remaining subtropical forests.<sup>213</sup> According to Basnet, the EIA was faulty and “copy/pasted from hydropower projects to airport construction”. She further adds that the government even described the airport construction as “Nepal’s pride project [...] but still lacks such kind of strictness, then what do you expect from other projects? That was gross negligence on the government’s part”.<sup>214</sup> In May 2022, the Supreme Court nullified all government decisions to build the airport and ordered an alternative site to Nijgadh be found, due to environmental concerns.<sup>215</sup> This case shows the importance of a serious implementation of the EIA, but also that the Supreme Court in Nepal, albeit after a lengthy period of time, decides in favour of nature.

Adhikari, Sanjay shared another positive story regarding the implementation of environmental law.<sup>216</sup> Over the last few years, Bharatpur City (a city in southern central Nepal, which was declared a metropolitan city in March 2017 and is the third most populous city of Nepal) has dumped tonnes of waste a day into the Narayani River.<sup>217</sup> However, after environmental advocates filed a petition with the Supreme Court, all of the waste was taken out in June 2023. Adhikari, Sanjay, points out:

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<sup>213</sup> Ramesh Bhushal, “‘A Waste of Time and Money’: Why Are Environmental Assessments so Ineffective in Nepal?” (Eco-Business, 25 November 2022) <[www.eco-business.com/news/a-waste-of-time-and-money-why-are-environmental-assessments-so-ineffective-in-nepal/](http://www.eco-business.com/news/a-waste-of-time-and-money-why-are-environmental-assessments-so-ineffective-in-nepal/)> accessed 28 June 2023.

<sup>214</sup> Interview with Lawyers/Judges, Rupa Basnet (in person, 23 May 2023).

<sup>215</sup> Sangam Prasain and Tika Pradhan, ‘Supreme Court Says No to Nijgadh Airport over Environmental Concerns’ (The Kathmandu Post, 2022) <<http://kathmandupost.com/money/2022/05/27/supreme-court-says-no-to-nijgadh-airport-over-environmental-concerns>> accessed 28 June 2023.

<sup>216</sup> Interview with Lawyers/Judges, Sanjay Adhikari (in person, 6 June 2023).

<sup>217</sup> Ananta Prakash Subedi, ‘Waste Management and Landfill Sites: Bharatpur’s Case’ (2022) <<https://english.onlinekhabar.com/soild-waste-management-bharatpur.html>> accessed 28 June 2023.

This is the success story. The first thing I would share to you, because every time you go to the people, they will share you all the sad story. Nothing is happening. It's not working out. There are laws, but it's not implemented. That is the nature of law. Laws are never implemented. You should implement it. That is why the Article 46 of the Constitution has the right to constitutional remedy. It will be implemented once you act for it, once you act for the remedy.<sup>218</sup>

In order to improve the implementation of laws and court orders Adhikari, Sanjay further adds:

Because human civilization come from the success story, we get demotivated if we see failures. We always want success, and you need to motivate the judges that if Indian court can do, it like actually ban the single use plastic, then Nepal court can do it as well.<sup>219</sup>

However, as long as the government does not strengthen compliance with existing laws and Supreme Court rulings already issued, any improvement will be hindered. In particular, the enforcement of penalties as a tool to increase compliance and bringing polluters to account are also critical in this regard.

Nevertheless, there are also already ongoing efforts by the MoEF and the DoEnv, aimed at getting plastic pollution under control.

#### 4.4.2 Current measures to address plastic pollution

With regard not just for Kathmandu City but for the whole country, the government took the first initiative in April 2015 to ban plastic bags smaller than 20x35 inches and thinner than 40 microns. This effort was, however, put on hold following the devastating earthquake of April 25, 2015, as the government's main

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<sup>218</sup> Interview with Lawyers/Judges, Sanjay Adhikari (In person, 6 June 2023).

<sup>219</sup> *ibid.*

priority shifted to recovery.<sup>220</sup> Furthermore, the initiation could not be accomplished because no alternatives were given, and plastic industries continued the production of lightweight plastic bags.<sup>221</sup>

Prior to the Covid pandemic, the government initiated the promotion of alternative bags all over the country involving universities, colleges, schools, and municipalities. This campaign was halted because of the Covid Pandemic.<sup>222</sup> Nevertheless, in September 2021, the MoEF imposed a complete ban on plastic bags below 40 microns by publishing a notice in the Nepal Gazette.<sup>223</sup> According to Regmi, the DoEnV is strictly monitoring the status of the ban on the production, import, sale, distribution, and use of such plastic bags,<sup>224</sup> but implementation remains doubtful as people continue to manufacture and use plastic bags.<sup>225</sup> Both Basnet and Aryal opine that the government is not taking these bans seriously and that companies are manipulating the government into not implementing these standards.<sup>226</sup>

Adhikari, Saroja admits that the control of plastic bag producers is difficult. She states:

We don't know the aggregate data because they don't want to register. It is very difficult because they run the business in their own house, in a single room. We have done some interaction programs, but they don't give us the exact amount [of plastic bags] they have already produced. So that is a problem because if we do not put these plastic bags on the market, people will not use them. But the manufacturers are producing them.<sup>227</sup>

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<sup>220</sup> Anustha Shrestha, 'Reducing Plastic Waste' (The Kathmandu Post, 2023) <<http://kathmandupost.com/columns/2023/06/10/reducing-plastic-waste>> accessed 1 July 2023.

<sup>221</sup> Interview with members of NGOs/ relevant stakeholders, Tika Regmi (email, 30 June 2023).

<sup>222</sup> *ibid.*

<sup>223</sup> Himalayan News Service, 'Govt to Strictly Monitor Ban on Plastic Bags' (The Himalayan Times, 27 July 2022) <<https://thehimalayantimes.com/nepal/govt-to-strictly-monitor-ban-on-plastic-bags>> accessed 1 July 2023.

<sup>224</sup> Interview with members of NGOs/ relevant stakeholders, Tika Regmi (email, 30 June 2023).

<sup>225</sup> Anup Ojha, 'Government Reintroduces Ban on Plastic Bags, but Implementation Remains Doubtful' (2021) <<https://kathmandupost.com/national/2021/09/17/government-reintroduces-ban-on-plastic-bags-but-implementation-remains-doubtful>> accessed 26 January 2023.

<sup>226</sup> Interview with Lawers/Judges, Rupa Basnet (in person, 23 May 2023); Interview with Lawers/Judges, Prof. Dr. Ravi Sharma Aryal (in person, 7 June 2023).

<sup>227</sup> Interview with members of NGOs/ relevant stakeholders, Saroja Ashikari (in person, 16 June 2023).

After the failure of these previous initiations, in May 2022, the government announced the Action Plan for Ban on Plastic Bags.<sup>228</sup> According to Regmi, the action plans has four major strategies:<sup>229</sup>

01 —Preventing the import of plastic products thinner than 40 microns

02 —Outlawing the import of single-use plastic bags thinner than 40 microns

03 —Offering grants to businesses for purchasing new machinery for producing plastic bags thicker than 40 microns and eco-friendly alternative bags

04 —Promotion of eco-friendly substitute bags to the general public

Furthermore, in July 2022, the government also banned the production, import, sale or distribution, and storage of plastic flowers.<sup>230</sup> This decision is in line with Section 15 of the Environment Protection Act 2076 BS (2019), stating that the government may determine necessary standards for the mitigation of pollution. Overall, when asked about the government's current measures, Regmi replies that the DoEnv also issues notices from time to time to discourage the use of plastic bags and plastic flowers. In Kathmandu, department stores, shopping malls, and commercial establishments are requested to use cotton, jute, or paper bags instead of plastic bags.<sup>231</sup>

Yet even if a certain amount of action is taken on the side of the government, the other side of the NGOs or the judiciary believes that this is by no means sufficient. The frustration with the implementation of the government's plastic bag ban is also evident in Panjiyar's statement:

<sup>228</sup> Himalayan News Service, 'Action Plan to Implement Ban on Plastic Bags below 40 Microns' (The Himalayan Times, 21 May 2022) <<https://thehimalayantimes.com/nepal/action-plan-to-implement-ban-on-plastic-bags-below-40-microns>> accessed 4 July 2023.

<sup>229</sup> Interview with members of NGOs/ relevant stakeholders, Tika Regmi (email, 30 June 2023).

<sup>230</sup> Himalayan News Service, 'Government Imposes Ban on Plastic Bouquets, Flowers, Garlands' (The Himalayan Times, 31 July 2022) <<https://thehimalayantimes.com/kathmandu/government-imposes-ban-on-plastic-bouquets-flowers-garlands>> accessed 4 July 2023.

<sup>231</sup> Interview with members of NGOs/ relevant stakeholders, Tika Regmi (email, 30 June 2023).

To ban one single-use plastic of below 40 microns it is taking you almost five years from writing it into action, but still, it has not been banned. But there are 1000 types of waste. If you discuss individually about one waste in five years of time, 1000 will take you 5000 years of time, and you still cannot do it because every time, the nature of waste changes.<sup>232</sup>

In order to improve the effective implementation of measures to address plastic pollution and, therefore, guarantee everyone's right to a clean and healthy environment, the next section lays out some recommendations for the government.

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<sup>232</sup> Interview with members of NGOs/ relevant stakeholders, Pankaj Panjiyar (in person, 21 May 2023).

## 5. Recommendations

The three most frequently mentioned issues during the interviews, which need to be improved to tackle the plastic problem, were: waste segregation, recycling, and awareness raising. As mentioned in section 4.1, there is almost no waste segregation at the household level or during the collection service, which also makes recycling much more difficult in the next step. Therefore, it is the responsibility of the government, in consultation with the waste collection companies, to encourage waste separation and to impose penalties for non-compliance, as this is frequently the most effective way to bring about a change in people's behavior.<sup>233</sup> In addition, incentives for companies to open recycling facilities, such as tax breaks and the introduction of recycling technologies already developed elsewhere, should be introduced in Nepal. To that point, Regmi adds that “easy access to recycling centers for all people for recycling purposes” must be ensured.<sup>234</sup>

More educational programs are needed to raise awareness about the harmful effects of plastic on the environment and also about the behavior of simply throwing garbage out of the bus or dumping it next to the road and on the riverbank. As can be seen from the current situation in Kathmandu, the current efforts are not yet sufficient.

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<sup>233</sup> Linda Steg and Charles Vlek, 'Encouraging Pro-Environmental Behavior: An Integrative Review and Research Agenda' (2009) 20 *Journal of Environmental Psychology* 309.

<sup>234</sup> Interview with members of NGOs/ relevant stakeholders, Tika Regmi (email, 30 June 2023).

Adhikari, Saroja mentions that the DoEnv “do[es] some workshops and campaigns to create awareness. And we have some short clips on the radio and television to make people aware of this. But it doesn’t work properly”.<sup>235</sup> This statement illustrates once again that efforts on the part of the government are, in fact, present, but that its own employees are not convinced of their success and sufficiency. In addition, the government employees themselves are often not sufficiently informed and have too little knowledge about environmental protection. According to Sharma the government “must understand about the clean and healthy environment. They must honour the right of the people to the environment”.<sup>236</sup> Dixit shares this point of view by stating: “We know the problems. And we also have ideas for solutions. So something has to be done. For one thing, the government must be held more accountable.”<sup>237</sup>

Besides the need for the government to improve its efforts, Panjiyar and Ghimire also mentioned the role of producers.<sup>238</sup> Nepal should adopt an Extended Producer Responsibility (EPR) strategy. EPR is an approach to environmental policy that extends a producer’s responsibility to the post-consumer stage of a product’s life cycle. Therefore, EPR regulations typically shift some or all of the physical collection or waste management costs from local governments to producers.<sup>239</sup> India already introduced the EPR scheme for plastic waste in 2016 under its Plastic Waste Management Rules. The EPR framework mandates producers to set up waste collection systems and make sure the garbage is handled in an ecologically friendly way. In India, the strategy is specifically intended to encourage a circular economy and minimise

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<sup>235</sup> Interview with members of NGOs/ relevant stakeholders, Saroja Ashikari (in person, 16 June 2023).

<sup>236</sup> Interview with Lawers/Judges, Prof. Binod Prasad Sharma (in person, 5 June 2023).

<sup>237</sup> Interview with members of NGOs/ relevant stakeholders, Ajaya Dixit (in person, 12 June 2023).

<sup>238</sup> Interview with members of NGOs/ relevant stakeholders, Yunish Ghimire (Zoom, 22 May 2023); Interview with members of NGOs/ relevant stakeholders, Pankaj Panjiyar (in person, 21 May 2023).

<sup>239</sup> OECD, ‘Extended Producer Responsibility’ (2021) <[www.oecd.org/environment/extended-producer-responsibility.htm](http://www.oecd.org/environment/extended-producer-responsibility.htm)> accessed 4 July 2023.

the negative environmental effects of product waste.<sup>240</sup> Ghimire thinks that Nepal can learn from India on this issue and hold the manufacturer accountable as well, which could facilitate and complement government action.<sup>241</sup>

According to Adhikari, Sanjay “when you talk about the solid waste and plastic pollution, it’s not a day’s work. You can’t stop it at the moment, but it’s a part of progressive realization”.<sup>242</sup> In this sense, the government must immediately begin to expand its measures to stop the plastic crisis in Kathmandu, to guarantee the well-being of the people and the environment, and to protect the rights of all.

Although this thesis focuses mainly on the government response other stakeholders such as the judiciary and the civil society also play a crucial role. Lawyers should prepare environmental cases with concrete demands to facilitate immediate implementation and visible changes. Furthermore, the role of the judges should be to impose a time bound progressive implementation as stated in Article 47 of the Constitution (Article 47 of the Constitution of Nepal of 2015 states: “For the enforcement of the rights conferred in this Part, the State shall make legal provisions, as required, within three years of the commencement of this constitution”).<sup>243</sup> As already mentioned, the civilian population’s handling of plastic and the resulting waste and their lack of knowledge about the impact is mainly due to insufficient education and awareness. Nevertheless, the researcher himself has experienced in Kathmandu how recklessly, for example, plastic bottles are thrown out of a moving bus without people reflecting on their own behaviour. Therefore, a change in behaviour must also come from the population itself and every single person must contribute to environmental protection and conservation. Only through a reform including all stakeholders, the government, the judiciary, and the civil society, can a sustainable improvement in plastic pollution and waste management be achieved.

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<sup>240</sup> Arshiya Bhutani, ‘Extended Producer Responsibility (EPR) for Plastic Waste in India’ (12 April 2023) <<https://neufin.co/blog/extended-producer-responsibility-epr-plastic-india/>> accessed 4 July 2023.

<sup>241</sup> Interview with members of NGOs/ relevant stakeholders, Yunish Ghimire (Zoom, 22 May 2023).

<sup>242</sup> Interview with Lawyers/Judges, Sanjay Adhikari (in person, 6 June 2023).

<sup>243</sup> ‘Constitution of Nepal’ (2015) <[https://ag.gov.np/files/Constitution-of-Nepal\\_2072\\_Eng\\_www.moljpa.gov.\\_npDate-72\\_11\\_16.pdf](https://ag.gov.np/files/Constitution-of-Nepal_2072_Eng_www.moljpa.gov._npDate-72_11_16.pdf)> accessed 25 November 2022.

## 6. Conclusion

The aim of this thesis was first to examine the impacts of plastic pollution on the right to a clean and healthy environment of the people living in the riverside squatter settlements of Kathmandu and second to identify policy and practical measures of the government of Nepal and their applicability and efficiency against plastic pollution.

All three interviewed groups, the people living in squatter settlements along the riverside (1), the lawyers and judges (2), and the members of NGOs and other relevant stakeholders such as government officials (3), despite their different backgrounds and perspectives, agree that the right to a clean environment is not adequately guaranteed in Kathmandu City or rather in Nepal nationwide. Plastic pollution affects all inhabitants of Kathmandu, especially through air pollution resulting from the burning of plastic waste. However, people who are already affected by their disadvantaged living conditions, for instance, their housing situation in squatter settlements, are disproportionately affected because the government does not consider them as full citizens of the city and accordingly fails to guarantee them all their constitutional rights. The research found that the two settlements studied are experiencing different levels of impact, as the squatter settlement Sinamangal, at least, has a waste collection service, which supports the people in keeping their environment clean. However, the community living in Thapathli is not provided with such a waste management system, although they are willing to pay for it as well. This places them as second-class people, as they are not provided the same administrative services by the city as other citizens. Due to

their status as informal squatters along the riverbanks, the people are often not able to make demands upon the government and stand up for their needs. However, as citizens of Nepal, the Constitution guarantees the same rights to them as everyone else.

Only three of the nine interviewed people from the squatter settlements were aware of their fundamental right to a clean and healthy environment. It is, therefore, of great importance to provide more rights-based education in order to empower the people to stand up for them themselves. According to the UN Special Rapporteur on human rights and the environment, Boyd, this is the reason why the right to a clean and healthy environment is so critically important. He says: “Governments have made promises to clean up the environment and address the climate emergency for decades but having a right to a healthy environment changes people’s perspective from begging governments to act to demanding governments to act”.<sup>244</sup> In this sense, the Nepalese government has the obligation to provide a clean and healthy environment to its people, as stated in Article 30 of the Constitution, which includes doing everything possible to mitigate the impacts of plastic pollution.

However, it is not only the Constitution that serves as a basis to tackle the plastic crises in Nepal. In order to answer the second research question of this study, the applicability and efficiency of all policy and practical measures of the government of Nepal were examined. The Environment Protection Act 2076 BS (2019), as well as the Solid Waste Management Act 2068 BS (2011), are equally important in addressing environmental degradation due to plastic pollution in Nepal. But although these laws exist and are comprehensive in written form, the interviewed representatives of the NGOs, in particular, but also the lawyers and judges, strongly criticise the government’s enforcement measures. In addition, while the two government officials emphasise that the government is taking certain actions, such as the ban on plastic bags below 40 microns, they also agree that the measurements are not efficient enough. The extent to which the plastic crisis will progress depends on the government’s willingness, the importance it will place on environmental protection in the future, and whether

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<sup>244</sup> David Boyd, ‘Why the UN General Assembly Must Back the Right to a Healthy Environment’ (UN News, 22 July 2022) 6 <<https://news.un.org/en/story/2022/07/1123142>> accessed 4 July 2023.

it is prepared to focus not only on economic development but also on the environment at the same time. An allocation of more budget to the MoFE and an increase in human resources are also crucial for a fundamental change of direction.

Viewed through a human rights-based approach, the fundamental goals of environmental policy are obvious as any action must, first and foremost, ensure that the most vulnerable individuals have the means to a sufficient standard of living and protection from the worst consequences of environmental degradation.<sup>245</sup> In that sense, Adhikari, Sanjay states for the country context of Nepal: “We can say that human rights or other concepts [such as EJ] are western, but plastic pollution or protection of the environment is not something you do for the rest, right? You do it for yourself, actually, or for your own country”.<sup>246</sup>

While with the recognition by the UNGA of the right to a clean, healthy and sustainable environment for everyone on the planet as a human right and the current drafting process of an international legally binding instrument towards ending plastic pollution are decisive steps in the right direction to preserve further environmental damage, a lot of further research on the disproportional impacts of plastic pollution on the rights of the people is needed.

This thesis attempted to make a small contribution to the enormous task of politicians, environmental activists, NGOs, companies, and all of humanity to protect and save the environment from being completely polluted by plastic and to guarantee the full enjoyment of human rights to all communities around the world.

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<sup>245</sup> Simon Nicholson and Daniel Chong, ‘Jumping on the Human Rights Bandwagon: How Rights-Based Linkages Can Refocus Climate Politics’ (2011) 11 *Global Environmental Politics* 121, 132.

<sup>246</sup> Interview with Lawyers/Judges, Sanjay Adhikari (in person, 6 June 2023).

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## Interviews

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Interview with squatter settlement Respondent 2, Sinamangal (in person, 29 May 2023)

Interview with squatter settlement Respondent 3, Sinamangal (in person, 29 May 2023)

Interview with squatter settlement Respondent 4, Sinamangal (in person, 29 May 2023)

Interview with squatter settlement Respondent 5, Sinamangal (in person, 29 May 2023)

Interview with squatter settlement Respondent 6, Thapathali (in person, 16 June 2023)

Interview with squatter settlement Respondent 7, Thapathali (in person, 16 June 2023)

Interview with squatter settlement Respondent 8, Thapathali (in person, 16 June 2023)

Interview with squatter settlement Respondent 9, Thapathali (in person, 16 June 2023)

Interview with lawyers/judges, Rupa Basnet (in person, 23 May 2023)

Interview with lawyers/judges, Sanjay Adhikari (in person, 6 June 2023)

Interview with lawyers/judges, Raju Prasad Chapagain (in person, 26 May 2023)

Interview with lawyers/judges, Prof. Binod Prasad Sharma (in person, 5 June 2023)

Interview with lawyers/judges, Prof. Dr. Ravi Sharma Aryal (in person, 7 June 2023)

Interview with members of NGOs/ relevant stakeholders, Dr. Surya Prasad Sharma Dhungel (in person, 30 May 2023)

Interview with members of NGOs/ relevant stakeholders, Yunish Ghimire (Zoom, 22 May 2023)

Interview with members of NGOs/ relevant stakeholders, Rabindra Lamichhane (in person, 23 May 2023)

Interview with members of NGOs/ relevant stakeholders, Pankaj Panjiyar (in person, 21 May 2023)

Interview with members of NGOs/ relevant stakeholders, Pragyajan Yalamber Rai (in person, 16 June 2023)

Interview with members of NGOs/ relevant stakeholders, Ajaya Dixit (in person, 12 June 2023)

Interview with members of NGOs/ relevant stakeholders, Saroja Ashikari (in person, 16 June 2023)

Interview with members of NGOs/ relevant stakeholders, Tika Regmi (E-mail, 30 June 2023)

# Appendix A: Interview Guidelines

## Interview questions: People living in riverside settlements

### General Data:

- 01 – How long have you lived in this settlement?
- 02 – How many family members live with you?
- 03 – What kind of housing/shelter do you have?
- 04 – Are you currently working?
- 05 – Do you have access to tap water?
- 06 – Do your children go to school? If yes, private or government?
- 07 – Do you read any news, watch television or use other means of communication? If yes, what do you listen/watch generally?

### Data regarding Q1:

- 08 – Do you use plastic items? If yes, what kind of items do you use frequently?
- 09 – How and where do you dispose of these items after use?
- 10 – How convenient do you feel using plastic items?
- 11 – Do you bring your own bag when you buy things?
- 12 – Do you know the different types of waste and how to separate them? For example, recycle and non-recyclable?
- 13 – Is there any waste management system in place in your settlement? Do you have a waste container? If yes, do you have different ones for different types of waste?
- 14 – Have you ever heard that plastic causes pollution? If yes, from which source?

- 15 — Do you have information about the risks and dangers connected to plastic pollution?
- 16 — Do you consider your environment polluted by plastic? (Yes/No and why, any reason?)
- 17 — Did you notice any changes within the last few years regarding pollution, especially in the river?
- 18 — Are you aware of your right to a clean and healthy environment?
- 19 — Do you think you can take part in decisions regarding your environment and your livelihood?

Data regarding Q2:

- 20 — Where are there any awareness programs regarding plastic pollution in your community? (maybe your children learn about it in school)
- 21 — Have you seen NGOs or any other group which cleans the river or the environment? If yes, did you join it?
- 22 — Does the government collect or manage waste in your settlement?
- 23 — Do you think the government is doing enough to keep your environment clean?
- 24 — What are you expecting from the government to improve your situation?

### **Interview questions: Lawyers & judges**

General Data:

- 25 — What cases did you work on in the field of environmental law? Any regarding (plastic) pollution?
- 26 — When you decide about cases regarding the environment, what sources do you rely on the most? International or national, or both?
- 27 — Any jurisprudence or practices regarding the environment, especially plastic pollution, have been applied?

Data regarding Q1:

28 — In general, what do you think about plastic pollution and the environment in Nepal, especially in Kathmandu City?

29 — The Constitution of Nepal guarantees the right to a clean and healthy environment. In your opinion, how can we interpret this right, and what elements does it include?

30 — Do you think plastic pollution affects everyone living in Kathmandu City equally?

31 — What is your opinion about the right to a clean and healthy environment for the people living in squatter settlements along the riverside of Kathmandu City?

32 — How widespread is the concept of Environmental Justice (EJ) in Nepal?

Data regarding Q2:

33 — What are the most important laws in place concerning the environment in Nepal?

34 — Do you think the laws and policies are adequate enough to address plastic pollution?

35 — If not, what are the suggestions to the government?

36 — Would an internationally recognised Human Right to a clean and healthy environment improve the situation?

### **Interview questions: members of NGOs & other stakeholders in the research field:**

Data regarding Q1:

37 — In general, what do you think about plastic pollution and the environment in Nepal, especially in Kathmandu City?

38 — The Constitution of Nepal guarantees the right to a clean and healthy environment in your opinion, how can we interpret this right, and what elements does it include?

39 — Do you think plastic pollution affects everyone living in Kathmandu City equally?

40 — How would you evaluate the situation for the people living in squatter settlements along the riverside of Kathmandu City?

41 — How widespread is the concept of Environmental Justice (EJ) in Nepal?

Data regarding Q2:

42 — What do you think about the response of the government of Nepal regarding plastic pollution?

43 — Do you think a human right to a clean and healthy environment would improve the situation?

44 — What should the government do to support people most affected by plastic pollution, especially vulnerable groups?

45 — If you could implement one guideline to tackle plastic pollution, what would it be?





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The present thesis - ***Plastic Pollution and the Right to a Clean and Healthy Environment: A Case Study of People Living in Squatter Settlements Along the Riversides of Kathmandu City, Nepal*** written by **Alexandra Patricia Engel** and supervised by Mike Hayes, Mahidol University, Thailand and Geeta Pathak Sangroula, Kathamandu School of Law, Nepal - was submitted in partial fulfilment of the requirements for the Master's Programme in Human Rights and Democratisation in Asia Pacific (APMA), coordinated by Mahidol University (Thailand).

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