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Theoretical
Impulses + Case
Studies

Interdisciplinary Perspectives on the Interplay between Human Rights and Sustainability

Prof. Dr. Milena Valeva,
Prof. Dr. Kathrin Nitschmann (Ed.)

InDi 

Institut für Internationale &
Digitale Kommunikation

Trier University
of Applied Sciences

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Preface

The following collection of manuscripts emerged from an interdisciplinary virtual exchange held during the Winter semester of 2023/2024 at the Environmental Campus Birkenfeld, organized by Prof. Dr. Milena Valeva and Prof. Dr. Kathrin Nitschmann. Additionally, Prof. Dr. Héctor Bombiella Medina, a lecturer of anthropology in the Department of World Languages and Cultures at Iowa State University, contributed to the virtual exchange and supervised case studies 3 and 4, bringing his extensive experience in this field and facilitating the international exchange. Within the elective module on Human Rights, students from the Bachelor's programs "Nonprofit and NGO Management" and "Environmental and Business Law," as well as the Master's program "Energy and Corporate Law," explored the interconnections between human rights and sustainability.

In an era marked by unprecedented environmental challenges and profound social transformations, the intersection of human rights and the rights of nature has emerged as a critical area of inquiry and debate. Today, as we face the dual crises of climate change and biodiversity loss, the traditional boundaries between human and environmental rights are increasingly blurred. This confluence demands a fresh, interdisciplinary approach to understanding and addressing the complex and interrelated issues at hand.

Human rights, fundamental to the dignity and freedom of individuals, are deeply impacted by environmental degradation. Communities worldwide are experiencing firsthand the devastating effects of polluted air, contaminated water, and deforested landscapes, all of which undermine basic human rights to health, livelihood, and well-being. Conversely, recognizing the rights of nature – the intrinsic value of ecosystems and species – challenges us to reconsider our legal, ethical, and philosophical frameworks. It calls for a paradigm shift from an anthropocentric world-

view to one that embraces the interconnectedness of all life forms.

Engaging in robust discussions and research on these topics is essential in today's context. By exploring interdisciplinary perspectives, we can forge innovative solutions that honor both the rights of individuals and the integrity of nature. This special issue aims to contribute to this vital discourse, providing insights and fostering dialogue on how we can collectively navigate the complex landscape of human rights and environmental sustainability.

The first chapter „Human rights and SDGs in the context of democracy“ examines the significance of international human rights in today's context and links them to new value systems like sustainability.

The second chapter, the case study „Rights of Nature“ explores the concept of granting legal rights to nature itself by comparing laws from various countries to show how it combats environmental exploitation.

The third chapter, the case study „Traditional coca leaf consumption and drug trafficking in Colombia“ delves into the complex issues surrounding coca cultivation in Colombia, highlighting its economic, social, and political impacts.

The fourth chapter, the case study „The artisanal fishing community of Chorrillos, Peru“ aims to provide theoretical insights and recommendations for improving the livelihoods of artisanal fishing communities in Peru, considering legal, ethical, and environmental perspectives as well as how economic liberalization, privatization, and deregulation affect the community's socio-economic conditions.

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Acronyms and abbreviations

ADR	Alternative Dispute Resolution
AUC	Autodefensas Unidas de Colombia
BLFRG	Basic Law for the Federal Republic of German
BVerfG	Bundesverfassungsgericht (Federal Constitutional Court)
CEPA	Committee of Experts on Public Administration
CEPLAN	Peruvian National Center for Strategic Planning
CRE	The Constitution de la República del Ecuador
ECJ	European Court of Justice
EFSA	The European Food Safety Authority
ELN	Ejército de Liberación Nacional
ENSO	El Niña Southern Oscillation
FARC	Fuerzas Armadas Revolucionarias de Colombia
FTA	Free Trade Agreement
GDP	Gross Domestic Product
GNI	Gross National Income
HLME	Humboldt Current Large Ecosystem
HRI	Human Rights Index
IFOP	The Fisheries Development Institute
IK	Indigenous Knowledge
IPPC	Integrated Pollution Prevention and Control
IMARPE	The Institute of the Sea of Peru
IUU	Unreported, and unregulated
JFS-	Jumbo Flying Squid-
LEK	Local Ecological Knowledge
NGO	Non-Governmental Organization
NPO	Nonprofit Organization
ONCP	Office of National Drug Control Policy
Para	Paragraph
PEN	Peruvian nuevo sol
SAP	Strategic Action Program
SDG	Sustainable Development Goals
SDR	Sustainable Development Report
SLA	Sustainable Livelihoods Approach
SST	Sea Surface Temperature
TDA	Transboundary Diagnostic Analysis
TEK	Traditional Ecological Knowledge
UN	United Nations
USD	US dollar
WHO	World Health Organization
WS	Western science



Conceptual Human rights and SDGs in the context of democracy

From Human Dignity and Human Rights to Sustainability within the context of Democracy

Author: Prof. Dr. Milena Valeva

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1 Introduction

The goal of this contribution is to provide an overview of the conceptual connections between the constructs of human rights, sustainability, and democracy, emphasizing the historically significant role of human dignity. This overview serves as an overarching introduction to the students' articles in Chapter One, which explore selected relationships between these concepts.

The first student's article, authored by Yannick Wagner, focuses on a specific case concerning the role of Catholic health institutions in fostering human rights and sustainability in the USA. The following three contributions are conceptual in nature. Christine Wetter's article explores the links between human rights and sustainability, while Jacob Mayer's article examines the potential of liberal democracies to promote values and human rights. Lastly, Pauline Nicolay's contribution takes a legal perspective and discusses the potential of alternative dispute resolution for handling human rights issues in various contexts.

One main assumption of this overview is that the concept of human dignity is central to the in-

stitution of human rights, and human rights are instrumental in ensuring human dignity. Another key assumption relates to democracy, which is viewed as the framework for shaping human dignity, human rights, and sustainability. This article first focuses on the relationship between sustainability and democracy. It then analyzes the links between human dignity and human rights, followed by a discussion on the connections between human dignity and sustainability, and between human rights and sustainability. Finally, it concludes with an examination of the triangle formed by human dignity, human rights, and sustainability within the context of democracy, emphasizing the crucial roles of human agency and the rights of nature. Clarifying these links is essential for future empirical research to develop specific practical recommendations for sustainability transformation, including human rights, within a democratic context.

2 The paradigm of sustainability within the framework of democracy

The call for sustainability is globally recognized and widely interpreted through the UN Sustaina-

One of the primary limitations of liberal democracy in promoting sustainability lies in its focus on individualism and personal freedom. These principles, while crucial for human rights, can lead to a prioritization of personal and corporate interests over collective environmental needs.

ble Development Goals (SDGs). These universal prescriptions follow a goal-oriented framework, where actions (as means) must be undertaken to achieve the established sustainable development goals (as ends). While it may initially seem that democracy is neutral towards sustainability, a more in-depth analysis is necessary.

This analysis contains two theses on the relation between democracy and sustainability:

- Liberal democracy has limited capacity to support sustainability.
- Republican democracy has the potential to fully support the sustainability transformation.

On the one hand, liberal democracy characterized by its emphasis on individual rights, market freedom, and pluralistic governance, has been the dominant political system in much of the world. While it has provided a robust framework for protecting civil liberties and fostering economic development, its effectiveness in addressing sustainability challenges is increasingly questioned. The inherent focus on short-term gains, individual autonomy, and economic growth often conflicts with the long-term, collective actions necessary for achieving sustainability (Heidenreich, 2023).

One of the primary limitations of liberal democracy in promoting sustainability lies in its focus on individualism and personal freedom. These principles, while crucial for human rights, can lead

to a prioritization of personal and corporate interests over collective environmental needs. The rights of individuals to consume resources freely, for example, often take precedence over the imperative to conserve resources for future generations or to protect ecosystems. This tension is evident in the difficulty liberal democracies face in enacting stringent environmental regulations that might limit personal or economic freedoms. According to Dryzek (2021), the emphasis on market mechanisms and individual choice within liberal democracies can undermine the collective actions needed to address environmental issues like climate change.

Moreover, liberal democracies often struggle with the concept of collective responsibility, which is essential for addressing global environmental challenges. The liberal emphasis on individual rights can make it difficult to build the social solidarity and shared commitment needed for sustainability. For example, policies aimed at reducing carbon emissions often face resistance from groups or individuals who perceive them as infringing on personal freedoms or economic opportunities. This resistance can lead to policy gridlock, where necessary sustainability measures are delayed or diluted, compromising their effectiveness (Eckersley, 2004).

Republican democracy, on the other hand, with its emphasis on the common good, civic virtue, and collective decision-making, presents a promising framework for addressing the complex challenges of sustainability. One of the key strengths of republican democracy is its emphasis on civic responsibility and the common good. In this political framework, citizens are encouraged to engage in public life and consider the welfare of the community, including future generations, when making decisions. This contrasts with the more individualistic approach of liberal democracy, where personal interests often dominate. According to Pettit (1997), republican democracy fosters a sense of collective responsibility, which is crucial for addressing environmental challenges that require coordinated action and shared sacrifice. This collective orientation aligns well with the principles of sustainability, which demand long-term thinking and the prioritization of ecological and social well-being over short-term economic gains.

By fostering a culture of civic responsibility, republican democracy can help shift societal values towards greater environmental consciousness and action. Furthermore, the emphasis on the common good can support global sustainability efforts by encouraging cooperation between nations to address sustainability issues like climate change and biodiversity loss (Dobson, 2003).

As a preliminary conclusion, we can infer that as environmental challenges become urgent, the principles of republican democracy may offer a viable path towards a more sustainable future.

3 Human Dignity and Human Rights – necessary foundations for democracy

The philosophical roots of human dignity can be traced back to the works of Immanuel Kant in the 18th century, who emphasized that human beings should be treated as ends in themselves, not merely as means to an end. This principle has been pivotal in shaping modern human rights frameworks, reinforcing the idea that every individual possesses inherent worth that must be respected and protected.

Human dignity is ascriptive, meaning it is assigned to the social group of *Homo sapiens sapiens* and not to individuals. It is an expression of value judgment, whereby the condition for ascription is the fact of belonging to the human species. The ascription of human dignity equals a non-negotiable and unerasable positive valuation of human beings to prevent any dehumanizing devaluation (Valdés, 2009). Human dignity is universally given, meaning that dignity is equally distributed to all human beings. Equal humanity presupposes dignity.

The operationalization of human dignity is achieved through human rights. Through them, the concrete formulation, implementation, and prevention of violations of human dignity are achieved. In practice, human dignity functions as human rights; therefore, a violation of human rights equals a violation of human dignity, ergo human rights are non-negotiable.

Human dignity is unconditional and thus an expression of the human condition. This expression needs human rights. At the same time, human dignity requires democracy as an appropriate political system. Democracy incorporates human rights, translating the positive moral value (human dignity)

into a set of rights and duties that shape the potential for making claims (human rights). The transfer between individually assigned human rights and the socially performed practice of democracy is mediated by the concept of human rights (Valdés, 2009). A preliminary conclusion can be derived: the abstract concept of human dignity needs, in practice, both democracy as a social coordination practice and human rights as a functional expression in terms of claim-making by human beings. In turn, human dignity and human rights are foundational for democracy.

4 Relations between Human Dignity and Sustainability

The call for sustainability is omnipresent but also controversial. The ambiguity of the term "sustainability" induces practical problems in implementing policies for sustainability transitions. Sustainability encompasses three dimensions: social, environmental, and economic. However, a historical reconstruction reveals that the emergence of these dimensions lacks solid theoretical foundations. The existing theoretical fragments from different schools of thought lead to an insufficient operationalization of the term (Purvis, Mao, Robinson, 2019). According to the widely recognized definition from the 1987 UN Brundtland Commission, sustainability means "meeting the needs of the present without compromising the ability of future generations to meet their own needs" (UN, 2024). This definition has been critiqued for its implicit anthropocentrism, which suggests that humans are the most influential and important entities (Fox & Alfred, 2021).

Sustainability is both a value (as part of a value system, such as that of the EU) and a goal (interpreted as SDGs) (Herlin-Karnell, 2023). Despite the lack of clarity surrounding the term sustainability, the relationship between sustainability and human dignity needs more attention. It is evident that an intact environment is vital for human dignity, as a sustainable environment protects human dignity from violations. Conversely, sustainability incorporates respect for human dignity but extends beyond it by calling for social action to preserve the environment for future generations. This claim assumes human power and the possibility for influence. In the epoch of Anthropocene, the

power of humans is omnipresent. Given this power surplus in comparison to natural entities it is just rational to use it for intended collective goals. The paradigm of sustainability offers the common denominator among humans for collectively designed influence, which is defined as human agency.

5 Relations between Human Rights and Sustainability

In this section, the relationship between human rights and sustainability is the focus. From a content perspective, there is significant overlap between these two concepts. The 2030 Agenda for Sustainable Development and its 17 SDGs, introduced by the United Nations General Assembly in 2015, embody the regulative idea of sustainability. Human rights, on the other hand, are legally anchored in the institutional system of the UN and can be legally enforced – the United Nations Office of the High Commissioner for Human Rights (OHCHR) is the main entity responsible for human rights policy within the UN. In contrast, achieving the SDGs is a national responsibility, to be accomplished through partnerships with actors from the public, business, and non-profit sectors at local, regional, national, and global levels. There are no compulsory means or international monitoring systems for fulfilling the SDGs, which enhances the possibility of free interpretation at the national level (Kamau, Chasek, & O'Connor, 2018).

The differences between human rights and SDGs can be classified into three dimensions (Bexell, Hickmann, & Schapper, 2023):

- Normative Dimension: SDGs are conceptualized as goals and address a variety of entities, whereas human rights are directed towards individuals and are primarily based on the concept of human dignity.
- Institutional Dimension: Human rights and SDGs are organized differently, including their legal rules and enforcement powers at both national and international levels.
- Substantive Dimension: The interplay between SDGs and human rights can be characterized by both synergies (thematic overlap) and tensions or conflicts (such as the shortfall in preserving human rights while generating private profit maximization).

While human dignity is crucial for respecting all individuals and preventing unjustifiable actions that have negative consequences, human agency shifts the perspective to view humans as powerful actors capable of intentionally triggering both positive and negative outcomes.

The integration of SDGs into global policy frameworks has raised questions about the uniqueness of human rights, particularly when juxtaposed with the emerging discourse on the rights of nature. Traditionally, human rights have been centered on human dignity and the protection of individual and collective human interests. However, the SDGs expand this focus to include environmental sustainability, implicitly endorsing the notion that nature itself may possess rights. This shift challenges the anthropocentric foundations of human rights by suggesting that natural entities might hold intrinsic rights deserving of protection and respect (Stone, 1972; Cullinan, 2011).

6 A Triangle of Human Dignity, Human Rights, and Sustainability within the arena of democracy. The crucial role of Human Agency and Rights of Nature

Democracy, when interpreted in a republican sense that emphasizes the common goals of societies, provides the necessary foundation for the flourishing of sustainability. As previously mentioned, sustainability is a goal-based concept, and thus, it aligns well with the goal-oriented nature of republican democracy. Historically and substantively, human dignity has preconditioned the concept of human rights. Human rights, in turn, are vital for democracy, which ultimately enables the realization of human dignity. In summary, human dignity and human rights are fundamental to a democratic understanding of social practice.

However, for sustainability transformation to occur, the concept of human dignity must evolve to include human agency. While human dignity is crucial for respecting all individuals and preventing unjustifiable actions that have negative consequences (where humans are seen as passive recipients of such consequences), human agency shifts the perspective to view humans as powerful actors capable of intentionally triggering both positive and negative outcomes. This proposed evolution from human dignity to human agency anticipates human influence on the world without diminishing respect for human subjects. Additionally, human rights must be further enriched by incorporating the concept of the rights of nature. The move towards republican democracy facilitates the path to sustainability, including the introduction of nature's rights alongside human rights. While human rights are paramount for maintaining democratic order and are integral to sustainability, they are insufficient for addressing

the environmental dimensions of sustainability. The recognition of the rights of nature, as demonstrated by legal advancements in countries like Ecuador and Bolivia, where constitutions acknowledge nature's rights, prompts a reconsideration of the exclusivity of human rights. It challenges the human rights community to determine whether human rights can remain distinct or need to evolve to encompass broader ecological considerations (Knauß, 2018). This development underscores the necessity for a more integrated approach that harmonizes human rights with the rights of nature, reflecting an interdependent relationship essential for achieving sustainable development. Therefore, a more inclusive understanding of sustainability rights is needed, one that encompasses and clarifies both human rights and the rights of nature.

While these integrations alone cannot guarantee a turn towards sustainability (as they represent insufficient conditions), they are essential

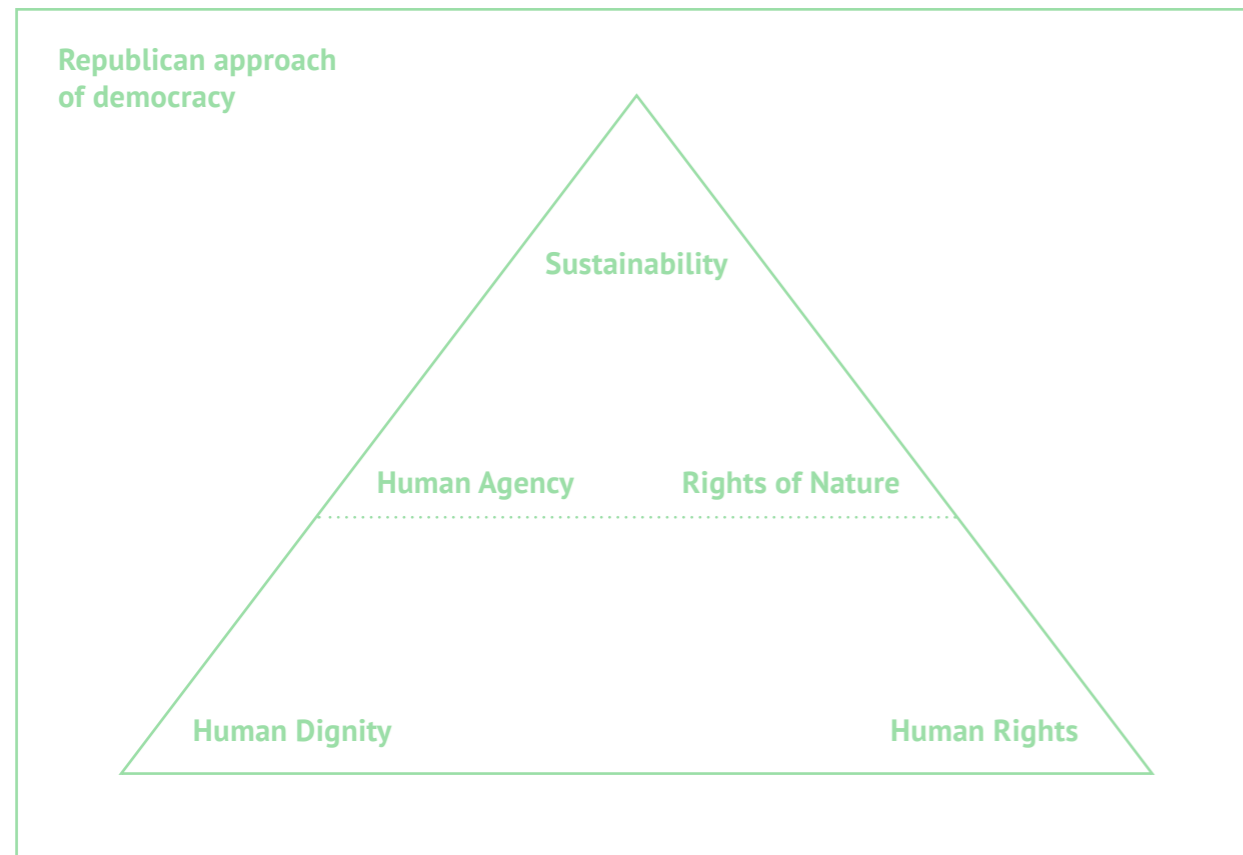


Figure 1: Relationships between the concepts of Human Dignity, Human Rights, and Sustainability within the arena of democracy (author's own figure).

steps on the path towards sustainability within the framework of republican democracy (as necessary conditions). The relationships discussed are visually summarized below (Figure 1).



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Introduction

In this chapter, the four authors consider the significance of international human rights in a current context. Using various focal points and examples, human rights are linked to newer value systems such as the Sustainable Development Goals (SDGs) and are challenged using practical contexts. Taking into account other topics, such as democracy or socio-religious issues, the four articles in this section cover a broad spectrum of questions and challenges in the context of human rights.

The first article in this section, "The relationship between the SDGs, human rights, and Catholicism in the United States, on health-related issues", written by Yannick Wagner, presents the intersection of the SDGs, human rights, and the Catholic Church in America as a complex and multifaceted landscape. As a global framework for addressing pressing societal and environmental challenges, the SDGs provide a roadmap for achieving a more just and sustainable world by 2030. Concurrently, human rights principles underscore the inherent dignity and equality of all individuals, serving as a moral compass for social justice advocacy. Within this context, the Catholic Church, with its vast network of institutions and adherents, occupies a unique position of influence and responsibility in promoting these values. Exploring the relationship between the SDGs, human rights, and the Catholic Church in America unveils a dynamic interplay of ethics, policy, and action that shapes contemporary social and environmental discourse. This article delves into the ways in which the Catholic Church in America engages with the SDGs and human rights principles, examining both the challenges and opportunities inherent in this intersection, in relation to healthcare.

Following this, the second article in this section "Comparison Human Rights and Sustainable Development Goals" by Christine Wetter, sets the foundations for the question of the actuality of human rights. This article provides an overview of

the evolution of human rights and the SDGs, examining their alignment and potential conflicts. It categorizes the SDGs into thematic clusters to illustrate their compatibility or divergence from human rights principles. The analysis highlights areas of convergence and disparities, aiming to enhance understanding of their interconnectedness and tensions. By exploring the interplay between human rights and the SDGs, the article contributes to understanding the implications for global development and social justice. Overall, it offers a detailed exploration of their interrelationships, aiming to foster appreciation for aligning diverse global goals with principles of human dignity and equality.

Following this, the third article in this section "The challenges and opportunities of liberal democracies in promoting international value systems" by Jacob Mayer, deals with questions about what needs to be done to put value systems such as human rights and the SDGs into practice and ensure their long-term resilience. By looking at various databases and statistics on the current situation of democracy, human rights and the SDGs worldwide, these three factors are linked and common challenges are identified. Subsequently the research question is pursued, in order to analyze the role of liberal democracies in solving these challenges in a national and international context.

Lastly in the fourth chapter, Pauline Nicolai discusses "Effective conflict resolution through ADRs: opportunities, challenges and applications in different contexts". Tackling environmental conflicts is essential for maintaining environmental sustainability and is vital for ensuring equitable access to justice. The increasing environmental pressures resulting from the continuous expansion of the global population and the inadequate global utilization of renewable energy sources have had profound effects on the environment, resulting in a notable increase in environmental conflicts.

Considering the substantial variations in judicial systems across nations and the frequently ineffective nature of these systems, there is an urgent need to reevaluate and enhance alternative dispute resolution mechanisms. This is particularly important in the context of environmental conflicts, where traditional legal processes may fall short in providing timely and satisfactory resolutions.

The relationship between the SDGs, human rights, and Catholicism in the United States, on health-related issues

Author: Yannick Sebastian Wagner

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1 Abstract

The following article is intended to provide an initial overview about the relationship between the United Nations Sustainable Development Goals of 2015, as well as their Universal Human Rights of 1948, and catholic healthcare in the United States of America. The aim is to show why Catholicism in the US, despite its constitutional secularity, still has a major influence on ensuring adequate health care for all citizens and where religious influence conflicts with the basic principles of the SDGs and the UN's Universal Human Rights. This is done using the example of catholic hospitals and the role of Catholicism in the field of public health.

2 Introduction – The role of the catholic church in American health care

The importance of the catholic Church for the American healthcare system can be easily assessed

by its percentage share of healthcare related services. In 2020, the share of catholic facilities for acute care hospitals amounted to 15.6 %. There was a clear upward trend, an increase by 28.5% compared to 2001 (Solomon, et al., 2020). In 5 states, the proportion of such facilities is over 40% and 30% respectively (ibid.). Particularly relevant are 52 regions, in which catholic hospitals offer the only option for inpatient treatment in their respective communities (ibid.) and therefore have a special responsibility in regional healthcare provision.

Another area in which religion, and therefore the catholic Church, is significantly involved in health related services (Ko, 2014) is the public health sector. In contrast to healthcare facilities, the influence of the catholic Church cannot be quantified here in exact figures. Public health includes all activities that have a direct or indirect

impact on human health, such as caring for the homeless, mobile care services for the elderly or preaching in church, which could potentially influence the health behavior of the faithful.

Since charity usually has a positive impact on the health of those who benefit from it both physically and mentally the catholic Church's influence on this can best be measured by the number of people who benefit from it. 13 million Americans benefited from services provided by Catholic Charities in 2020 (Catholic Charities USA, 2021). Around 40% of all Americans attend religious services every week (VanderWeele and Koenig, 2017). If you put this in relation to the number of people who belong to the catholic Church one fifth of all Americans (Masci and Smith, 2018) statistically more than 27 million Americans attend catholic services every week.

In the following, these two aspects of catholic healthcare in the US will be examined in more detail and critical reference will be made to possible areas of conflict and potential synergies with the SDGs and general human rights of the UN.

3 Catholic hospitals and the ERDs

In the US, the ERDs, the Ethical and Religious Directives of the Catholic Bishops' Conference, have formed the framework for medical practice in catholic healthcare facilities since 1948. They have been adapted several times over the years. The currently valid version is the sixth edition from 2018 (United States Conference of Catholic Bishops, 2018). This comprises 77 directives, divided into six thematic areas (ibid.). The latter will be analyzed individually below and compared with the related SDGs and general human rights of the UN. Unless otherwise indicated, the sources are always the sixth edition of the ERDs (ibid.), the UN Declaration of Universal Human Rights (United Nations, 1948) or the SDGs (United Nations, 2016) defined by the same.

3.1 The social responsibility of catholic health care services

The first part of the ERDs emphasizes Christ's mandate to protect the core elements of the Christian faith. This includes respect for human dignity, the caring for the poor, protecting the common good, ensuring adequate medical care and respecting a

pluralistic society. At first glance, these formulations do not appear to contradict the UN's SDGs or general human rights. They seem to be in line with SDGs 3, 5 and 10, as well as with UN's human rights articles 1 to 3. However, these formulations are repeatedly subject to certain restrictions in line with Christian moral concepts. This restriction can be found explicitly in directives 1 and 4 and thus subjects aid for the needy, as well as medical research and teaching, to the imperative of Christian morality. The idea of pluralism, which can be found in the introduction, is also severely restricted by this and the refusal of treatment is justified by Christian morality. All employees of catholic healthcare facilities are obliged to adhere to church morals. The resulting contradictions with the SDGs and general human rights are not specified in this part but will become more evident, analyzing the following parts of the ERDs. As explained in more detail in Part 6, the sixth edition of the ERDs extends this mandatory consideration of Christian morality even further and now also applies it to non-church healthcare facilities that cooperate with the catholic church and presupposes strict compliance with the ERDs as the basis for maintaining cooperation (Penan and Chen, 2019).

3.2 The pastoral and spiritual responsibility of catholic health care

This section describes in detail the forms of spiritual care that must be provided in a catholic hospital. It emphasizes that, in addition to medical care, spiritual support is a basic prerequisite for holistic recovery - both physical and psychological. From a scientific perspective, a connection between spirituality and an improvement in general health can be observed not only in the field of public health - as explained in more detail in the corresponding chapter - but also in a clinical context. Studies have shown that religious practice has a stress-reducing effect (Whitehead and Bergeman, 2020) and can even alleviate depressive symptoms, resulting of stressful life events (Lorenz, et al., 2019). There is also a link between delayed wound healing and stress, which increases the risk of wound infection or other complications (Guin and Kiecolt-Glaser, 2011). In addition, positive effects of religious practice in dealing with pain, as the most common non-drug coping strategy and

a greater perceived meaning of life in patients in palliative care were shown (Puchalski, 2001).

Thus, spiritual care can also be considered a relevant recovery factor in inpatient treatment from a scientific perspective. As an actual recovery factor, one could therefore argue that every patient has the same right to spiritual care during their treatment, derived from the UN Declaration on the Right to Health of 2008, which states: *"The right to a system of health protection providing equality of opportunity for everyone to enjoy the highest attainable level of health"* (United Nations, 2008). Since spiritual care can have a measurably positive impact on health, as previously proven, it should be available to every patient, regardless of their faith, in accordance with the principle of equality from Article 1 of the Universal Declaration of Human Rights and SDG 10. The ERDs do not meet this requirement. They only contain guidelines for catholic care and the treatment of Christians of other denominations, should they ask for spiritual assistance on their own initiative. This is possible according to canon law (c.844 §3,4), but only through a catholic clergyman. A clergyman of another Christian denomination is explicitly not permitted. Other religions are not mentioned. This is particularly critical in regions where there are only catholic hospitals, which means that believers of other religions are denied spiritual assistance. One could argue that they could also pray independently, but studies, as discussed in more detail later, show that people particularly benefit health-wise from organized religious activities, such as masses or prayers with their clergymen (VanderWeele and Koenig, 2017).

Directive 15 should also be critically scrutinized. It states that patients who are not conscious may also receive the holy sacraments if there is reason to believe that they would have consented to this if they were conscious and of sound mind. Particularly in the case of patients without relatives, this gives those responsible a high degree of discretion over the patient.

3.3 The professional-patient relationship

Part 3 elaborates on the principles set out in Part 1 and how these are to be implemented in the relationship between medical staff and patients. In addition to the equal treatment of all people, this

Catholic hospitals inform their patients of their legal rights but override them if they are contrary to catholic morality. This restriction also applies to informing patients about treatments and treatment alternatives, whereby patients are only informed about church-compliant treatment methods, despite the treating physicians' knowledge of other treatment options.

section places particular emphasis on providing patients with comprehensive information about all treatment options, their legal rights, and the requirement that treatment should only be carried out with the explicitly expressed consent of the patient or, in the case of incapacity, by the patient's representative. These directives are also limited by the imperatives of the catholic faith. Catholic hospitals inform their patients of their legal rights but override them if they are contrary to catholic morality, as stated in directive 24. This restriction also applies to informing patients about treatments and treatment alternatives, whereby patients are only informed about church-compliant treatment methods, despite the treating physicians' knowledge of other treatment options. This restriction by directive 27 contradicts the claim of the ERDs mentioned in the introduction to this part, according to which there should be a free exchange of information, free from manipulation. In this respect, the ERDs partially violate the UN's right to medical information as part of the right to health (United Nations, 2008) and SDGs 3 and 10, as the ecclesiastical restrictions may prevent more helpful treatment and leave the patient in the dark about its possibility. The latter also contradicts the goal of fewer inequalities, leaving the patients depending on their own level of medical education. Once again, this particularly affects

people who live in regions with exclusively catholic healthcare facilities.

Regarding organ donation, both living and after death, there is no potential for conflict between catholic and secular healthcare institutions. In the "Evangelium Vitae" No. 86, Pope John Paul II describes the act of organ donation as an act of Christian charity (John Paul II, 1995). This also corresponds to directive 30, which also permits living donation under the premise of non-violence towards the donor.

A foretaste of the greatest area of conflict between catholic healthcare and secular human rights, concerning part 4 is, is provided by directive 36, which sets out how to deal with victims of sexual violence. Victims should receive physical and psychological care and institutions should cooperate with law enforcement agencies. After being raped, women are granted the right to receive medication to prevent an unwanted pregnancy, but only if no pregnancy could previously be detected by testing. This restriction contradicts SDG 5, particularly subsection 5.6, which states that women have the right to reproductive health care and self-determination. Even though this right is not explicitly mentioned in the UN's general human rights, it has become increasingly important in the past. Even if this right is not explicitly mentioned in the UN's general human rights, the UN clearly positioned themselves in favor of women's right to abortion, including mentioning their concern about the recent tightening of abortion law in the US (United Nation, 2022). In doing so, they refer to the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) adopted by the UN General Assembly in 1979, particularly Article 12, which guarantees free access to medical care related to family planning and pregnancy (United Nations, 1979). In addition, the trauma of pregnancy resulting of rape also causes psychological suffering, which means that the ERDs here are also incompatible with SDG 3.

3.4 Issues in care for the beginning of life

The catholic church, and therefore also its hospitals, takes the clear position that life is sacred from on conception. Abortions are therefore prohibited under all circumstances, even if the pregnancy results from rape, as mentioned in the pre-

vious example. Married couples who wish to have children should be supported medically, but only to the extent that the chance of natural fertilization is increased. Fertilization itself must take place through sexual intercourse between the spouses. Couples should also be informed about alternatives such as adoption and taking in a foster child. Interventions that threaten the life of the fetus during pregnancy are permitted if there is a significant risk to the mother and it is impossible to delay the intervention. In some cases, this meant that women who were carrying a fetus that was not viable, only received help when they suffered from sometimes life-threatening bleeding or other complications. They had previously been refused help and were sent home, because although the fetus was not viable, it still had a heartbeat (Shepherd, et al., 2018). Although the women suffered severely from their condition, the ERDs prohibited them from receiving medical assistance that would jeopardize their pregnancy because the fetus, even though it would be unable to live after birth, still had a heartbeat, and the women were not in acute danger to their lives. The regulations of the ERDs subsequently placed these women in life-threatening situations that they wouldn't have gotten into in non-Catholic institutions.

Contraceptive methods are rejected, and patients are not informed about their options. Instead, married couples are to be introduced to the church doctrine of responsible parenthood and advised on natural family planning. Prenatal diagnostics are only permitted if they serve to prepare the parents-to-be to deal responsibly with a disabled child.

This part of the ERDs is particularly in conflict with the SDGs and the general human rights of the UN. Here too, this relates to SDG 5.6, and Article 12 of the CEDAW. However, further contradictions to UN law can be derived from this part of the ERDs. Studies show that women of color disproportionately often give birth in catholic hospitals (ibid.). In the state of New Jersey, for example, 4% of all deliveries by white women took place in catholic hospitals during the observation period. This compares to 17% of all deliveries by Hispanic women (ibid.). In Maine, this ratio between white and black women was 11 to 32% (ibid.). This is particularly problematic as the risk of miscarriage before the

20th week of pregnancy is significantly higher for black women than for white women (Mukherjee, et al., 2013). The main factors here are assumed to be pre-existing socio-economic disadvantages of the black population in America. The black women in Mukherjee's study became pregnant younger on average, had a lower level of education, a significantly lower income, were more likely to be overweight and were less well insured (ibid.). Thus, although black women have an increased need for reproductive care due to more frequent pregnancy complications, they are disproportionately bound to treatments according to the ERDs, which increases the inequalities between the white and black population in the US. Thus, there is also a conflict between the ERDs and SDGs 3 and 10, as well as Articles 1 - 3 of the UN Human Rights and Article 12 of the CEDAW. The latter particularly emphasizes the responsibility of the state to guarantee women's rights. The US has not yet fulfilled this responsibility.

3.5 Issues in care for the seriously ill and dying

This section offers little potential for conflict between the ERDs and UN law. This is mainly since the UN avoids taking a clear stance on euthanasia. When it does take a position, it is not explicitly for or against euthanasia, but merely against its expansion, for example against the current international trend of accepting disabilities as a legitimate reason for euthanasia (de la Hougue, 2021). The ERDs reject any form of euthanasia based on Christian teaching. They place their emphasis on palliative care on facilitating the most dignified life possible until death. This is to be ensured through the administration of pain-relieving medication, even if this potentially brings about death more quickly, and spiritual support. Patients have the right to refuse life-sustaining measures if their illness cannot be considered curable and leads to death soon and if, in their own feelings, such measures would only prolong their suffering. The fact that the illness must be incurable and soon fatal is not explicitly stated, but can be derived indirectly from directive 59, which emphasizes that the refusal of life-sustaining measures is to be accepted unless this is contrary to Christian morality. As this rejects suicide, any form of support for a person who is willing to die, who could

overcome their illness with medical help or live with it permanently, is not permissible from the Church's point of view.

Furthermore, the ERDs are also in favor of organ donation as soon as the death of the donor has been clearly established. The use of aborted fetuses for therapeutic or research purposes is not permitted. There are no clear contradictions to the SDGs or general human rights on this topic.

3.6 Collaborative arrangements with other health care organizations and providers

No direct contradiction to UN law is evident in the last part of the ERDs either. Indirectly, however, it can be considered relevant for all previously identified areas of conflict. The most significant changes in the sixth edition of the ERDs compared to its predecessor can be found in this part and serve to increase the influence of the catholic church and its teachings on the American healthcare system (Penan and Chen, 2019). Directives 70 - 74 clearly state that in the event of cooperation between a non-church healthcare institution and catholic actors - whether in acquisition, governance, or management - these institutions must also comply with the ERDs. According to directive 75, only the bishop of the relevant diocese may judge whether all catholic standards have been met or whether there is a risk of "scandal" and, if necessary, take measures or have measures taken to comply with the ERDs.

This expansion of ERDs can have a major impact on the regional provision of medical services that are not compatible with the ERDs. For example, in 2018, the Catholic Health Initiative system took over 22% ownership of Premier Health, the largest non-church health care provider in Southwest Ohio (Solomon, et al. 2020). Under the new ERDs, all Premier Health facilities must now abide by them, even though they are non-church and remain majority owned by them. Catholic healthcare institutions are also trying to expand their influence on the education system. In 2019, it became known that the University of California has numerous links to catholic healthcare facilities and often places students in these facilities after graduation, where they must submit to the ERDs from on their first employment as health care professionals (ibid.). Cooperation with catholic he-

althcare providers should therefore be considered carefully in advance. The moral implications of the latest ERDs must therefore be scrutinized by non-church institutions, and the government should carefully monitor future developments in the national healthcare system against this background and, if necessary, take regulatory measures to curb the ever-growing influence of ERDs on American hospitals and educational institutions.

4 Catholicism and public health

Public health is still a relatively new field of research. This is particularly true in a country characterized by individualism and liberalism such as the US, where healthcare and medicine are primarily associated with the detection and proper treatment of diseases (Rozier, 2014).

The easiest way to measure the importance of the catholic church to public health is to look at the reach of its aid programs. The umbrella organization of catholic charities in the US is Catholic Charities USA (CCUSA), which was founded in 1910. According to its own data (Catholic Charities USA, 2021), CCUSA helped 13 million people in 2020, as already mentioned. Aid was provided in the fields of affordable housing, immigration and refugee, disaster service, food and nutrition, integrated health, and social enterprise. The association spent \$4.7 billion, of which 88% were spent on their projects, and raised \$4.9 billion in the same period. The three main sources of income were government grants (41%), own income (34%) and donations (18%). In addition to their own ethical

guidelines, the ERDs are also considered seriously in the work of the CCUSA (Smith and McGrath, 2021). This means that the areas of conflict between the ERDs, UN law and SDGs described for catholic hospitals can also be expected to be apparent in the field of integrated health services, provided by CCUSA.

In addition to the organized form of catholic care, it is also of interest to observe the influence of Catholicism, in a more implicit way, on the health of Americans. One factor that has both direct and indirect influence on individual health is the psyche. For example, as previously mentioned, stress can slow down wound healing. Mental illnesses such as depression influence a person's health behavior in many ways. Poor hygiene, too little or too much sleep, unhealthy eating habits, giving up hobbies, social withdrawal, poorer education, drug or game addictions, self-harm, suicide, physical or psychological violence towards others, neglecting social duties or an increased susceptibility to errors in exercise of responsible activities, with negative consequences for others, are just some of the possible consequences of depressive illnesses. In this respect, studies that investigate the connection between mental health and religiosity are of great interest. Longitudinal studies have shown that people who attend religious services weekly or more often are 30% less likely to suffer from depression (VanderWeele and Koenig, 2017). In relation to American Catholics who attend religious services at least once a week, this statistically results in the following positive influence of catholic practice compared to non-religious Americans: With a prevalence of 9.2% (Goodwin, et al., 2022), 2,484 million out of 27 million non-religious Americans statistically develop a major depression within one year. With a 30% reduction in prevalence, statistically 1,739 million of the 27 million American Catholics who attend religious services at least once a week develop a major depression during the same period. This corresponds to a difference of 745000. A major depression usually has a noticeable impact on various areas of life and therefore restricts the subjective as well as the measurable quality of life and thus impairs personal health. Over 80% of those affected by a major depression report noticeable restrictions in coping with work or so-

Studies that investigate the connection between mental health and religiosity are of great interest. Longitudinal studies have shown that people who attend religious services weekly or more often are 30% less likely to suffer from depression.

cial life, resulting of their mental condition (Brody, et al., 2018). This would potentially equate to 596000 catholic Americans being able to better manage their daily lives through their religiosity and even 745000 Americans at all, being happier and enjoying healthier lives because of their belief. One possible explanation as to why religious practice has a positive effect on mental health is, in line with Victor Frankl's logotherapy, the assumption that a stronger sense of meaning in life also promotes mental resilience and thus prevents depression. Studies have even been able to prove this connection on a neuroscientific level (Schaefer, et al., 2013). A connection between perceived meaning in life and physical health has also been found (Roepke, et al., 2013). As lastly an increased sense of meaning through religiosity has also been identified (Krok, 2014), this could provide an explanation for the lower prevalence among regularly practicing Catholics.

A further potential for the Catholic Church to contribute to public health lies in preventive healthcare. A study that examined the relationship between religious affiliation and attitudes towards climate change found that a not insignificant proportion of American Catholics believe in a certain level of competence of religious authorities, including scientific issues (Alper, 2022). 45% of Catholics attributed at least some competence in this area to religious authorities. They believed them to be more competent than elected officials, to whom only 41% attributed this competence (ibid.). Another study showed that religious Americans had a high level of trust in their church's stance on vaccination against Covid-19. After their personal doctor, the church's advice was the most trustworthy source of information to them (Nortey and Lipka, 2021). Thus, religious authorities could, for some extend, have played a crucial role during the nationwide vaccination campaign. Among the Catholics surveyed, 52% stated that the topic had not been discussed to a relevant extent in their church. 42% stated that they had been encouraged to be vaccinated by their religious authorities. Only 3% of Catholics reported a negative attitude towards Covid vaccination from clergy (ibid.). The influence of the Vatican, especially Pope Francis, on the attitude of Catholics towards vaccinations will probably only become

more clearly during the next epidemic or pandemic crisis. Until 2022, the Pope avoided a clear statement for or against the Covid-19 vaccination, although in 2021 he already described it positively as an "Act of love" (Watkins, 2021).

Since 2022, he has clearly described vaccination as a "moral obligation" to Christians and warns against ideologically motivated misinformation (Pullella, 2022).

Making a clear statement about similarities and contradictions between public health related topics, comparing church and UN activities and positions generally, proves to be difficult and possibly also not expedient, as their assessment is heavily dependent on the respective definition of the relatively new term public health. A topic-related approach seems to be more promising here. The catholic church's clear stance on reproductive medicine issues and the resulting conflicts with UN law and the SDGs can also be applied to catholic counseling centers, which, as already mentioned, also take the ERDs seriously into account. The fact that religiosity can contribute to improving the mental health of a society, which also has a positive effect on physical health and the opportunity to participate in society, should be particularly emphasized at this point. This is because access to religious events is not highly dependent on income or origin. The catholic church can therefore contribute to achieving the goals of SDGs 3 and 10 and support SDGs 1 and 2 through its aid organizations. Through its global role, it will also play an important role in achieving the goals of SDG 17 in the future. The attitudes of the catholic church that undermine SDG 5 and Article 12 of the CEDAW and lastly also conflict partially with Articles 1 - 3 of the UN's Universal Declaration of Human Rights, must be viewed with concern.

5 Conclusion

As can be clearly seen from the examples given in this article, religion must also be considered when assessing a society in terms of its condition and its development potential in terms of the SDGs and UN's general human rights. In this regard, the Catholic Church in America paints a mixed picture. In the area of inpatient healthcare, the catholic church is extending its influence on majority non-Catholic hospitals by tightening the ERDs and is

also attempting to do so in the education sector. As a result, progress already achieved through scientific research, particularly in reproductive medicine, is at risk. By expanding their sphere of influence, more and more women, especially women of color, are denied access to modern, CE-DAW-compliant reproductive medicine.

In the field of public health, on the other hand, the positive aspects of Catholicism in America are becoming increasingly apparent, even if it should be emphasized that many aspects, such as religious-political interdependencies for example, have not been considered in this study. The low-threshold access to religious activities, which has the potential to mitigate negative socio-economic effects on the mental and physical health of disadvantaged sections of the population, should be particularly emphasized and therefore being supported, but also being critically assessed regularly, by all included decision makers in the future.

Hopefully, this overview of an extremely complex, and especially in the field of public health, under-researched topic presented here, will provide an incentive for further research in the future.



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Comparison of Human Rights and Sustainable Development Goals

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1 Abstract

This article aims to provide a concise yet comprehensive overview of the evolution of human rights and the Sustainable Development Goals (SDGs), tracing their historical development to the ongoing monitoring initiatives today. As we delve into the core of the discussion, a critical examination will be conducted to assess the alignment between the SDGs and human rights. The focal point will be a nuanced exploration of whether these two frameworks are in sync or if there are discernible deviations and potential conflicts of goals between them.

To facilitate a more in-depth analysis, the SDGs will be systematically categorized into distinct clusters, enabling a clearer illustration of their compatibility or divergence from human rights principles. By breaking down the SDGs into specific thematic areas, we aim to shed light on both the areas where alignment is evident and

those where disparities with human rights may exist. This comparative approach seeks to enhance our understanding of the interconnectedness and potential tensions between the SDGs and human rights.

Moreover, the exploration will not only highlight the points of convergence but also delve into the complexities of ensuring a harmonious coexistence between these two vital frameworks. By examining the interplay of human rights principles with the diverse goals encapsulated within the SDGs, this article endeavors to contribute to a nuanced understanding of the broader implications for global development and social justice.

In summary, this expanded article aspires to offer readers a more detailed exploration of the interrelationships between human rights and the Sustainable Development Goals, navigating through the clusters of SDGs to unveil areas of agreement and potential divergence. Through this

analysis, we seek to foster a deeper appreciation for the complexities of aligning diverse global goals with fundamental principles of human dignity and equality.

2 Human Rights

2.1 History of Human Rights

The Universal Declaration of Human Rights, signed in 1948, was influenced by the history of various member states of the UN, which was founded in 1945. In the course of history, the idea that people must be protected from the arbitrary power of the ruler has developed again and again. Here are some examples.

In the Middle Ages, the law was also known as "Magna Charta Libertatum" (1215 England) for the protection of the nobles and clergy, but also in the approach of the peasants against exorbitant taxes of the royal family. This was later enshrined in the English Constitution.

In the United States of America, on July 4, 1776, Congress adopted the Declaration of Independence drafted by Thomas Jefferson. "*We hold the following truths to be self-evident: that all men are created equal; that they are endowed by their Creator with certain inalienable rights; that this includes life, liberty, and the pursuit of happiness,*" reads the 15-article declaration that became the basis of the U.S. Constitution.

In France, during the Revolution of 1789, the National Assembly promulgated the Declaration of the Rights of Man and of the Citizen. There it was stated in Article 1: "*Man is born free and equal in rights and remains so.*" Article 2 reads: "*The aim of all plodding societies is the preservation of the natural and inalienable rights of man. These rights are liberty, property, security, and the right to resist arbitrary oppression.*" the fundamental rights set out in 17 articles were incorporated into the new constitution of 1791. The French "Declaration of the Rights of Man and of the Citizen" had an impact on the whole of Europe and brought about a new beginning of platitude in thinking.

There was a revolution in Germany in 1848. It was in this context that the National Assembly gathered in Frankfurt's Paulskirche and proclaimed the fundamental rights of the German people on 17 December 1848. It included the following

points: "*equality before the law, protection against arbitrariness by the authorities, freedom of the press, freedom of religion, freedom of assembly, the right to form associations, independence of the courts, public trials, freedom of property*". Unfortunately, these were not supported by all states and King Frederick William IV of Prussia also refused to be elected emperor. (Lohmann, 2004)

After World War II the United Nations (UN) was founded in New York in 1945 with the aim of "saving the world from the scourge of war", it took 2 years until the "Universal Declaration of Human Rights" was promulgated on December 10, 1948. The declaration, comprised of 30 articles, articulates a comprehensive framework of rights and freedoms inherent to all individuals, regardless of nationality, ethnicity, or any other distinction. These rights include civil and political rights, economic, social, and cultural rights, as well as the right to equality and non-discrimination. The UN had at this time 56 member states, of which 48 voted yes and eight abstained from voting.

The Declaration has become a touchstone for advocates of human rights, providing a universal reference point for holding nations accountable for their treatment of individuals. As the world continues to grapple with evolving challenges, the Declaration of Human Rights remains a foundational document, reminding humanity of its shared commitment to the dignity and worth of every person.

2.2 Monitoring compliance with Human Rights

Human rights are not merely abstract ideals but rather concrete principles, legally binding through international treaties and conventions. States that ratify these agreements commit to upholding and protecting the rights outlined within them. In the course of time, these rights become ingrained in the collective consciousness of societies, as they are continually talked about discussed and debated, again and again.

As a body attached to the UN General Assembly, the Human Rights Council has assumed the supervisory function. Members serve for staggered three-year terms and can be re-elected. The geographical distribution ensures a degree of diversity in the council's membership, allowing for broader perspectives.

What the Human Rights Council does:

- Serves as an international forum for dialogue on human rights issues with UN officials and mandated experts, states, civil society, and other participants;
- Adopts resolutions or decisions during regular sessions that express the will of the international community on given human rights issues or situations. Adopting a resolution sends a strong political signal which can prompt governments to take action to remedy those situations;
- Holds crisis meetings known as special sessions to respond to urgent human rights situations, 36 of which have been held to date;
- Reviews the human rights records of all United Nations Member States via the Universal Periodic Review;
- Appoints the Special Procedures, independent human rights experts who serve as the eyes and ears of the Council by monitoring situations in specific countries or by looking at specific themes; and
- Authorizes commissions of inquiry and fact-finding missions, which produce hard-hitting evidence on war crimes and crimes against humanity.

(United Nations Human Rights Council, 2024)

3 Sustainable Development Goals

3.1 History of the Sustainable Development Goals

The genesis of the Sustainability Development Goals can be traced to a series of international conferences and summits held in the late 20th and early 21st centuries.

The concept of sustainable development gained prominence at the United Nations Conference on Environment and Development, also known as the Earth Summit, held in Rio de Janeiro in 1992. The "Agenda 21" has been a comprehensive action plan in which 178 governments have set themselves the task of taking sustainable action in all areas where humans have an impact on the environment.

At the New York Millennium Summit in September 2000, 189 countries came together and adopted the Millennium Declaration at the Summit Conference. This gave rise to the 8 Millennium Development Goals, which had the following objectives by 2015:

- of halving hunger and poverty among the world's population,
- providing primary education for all,
- strengthening gender equality and women's rights,
- improving communicable diseases and maternal health,
- protecting the environment,
- building global development partnerships. (UN, 1992)

Since not all goals were achieved, the international community adopted the "2030 Agenda" in 2015, as well in New York. All 193 states of the United Nations have agreed on the plan, more precisely on the document "Transforming our world: the 2030 Agenda for Sustainable Development". These are 17 goals, also known as the Sustainable Development Goals, with 169 targets, covering a broad spectrum of issues including poverty, hunger, health, education, gender equality, clean water, climate action, and more. The adoption marked a historic moment as countries committed to a universal and transformative agenda that applies to all nations, recognizing the interconnectedness of global challenges. The ecological, social and economic goals are interconnected, recognizing that



Figure 2: Overview SDGs

addressing one goal often involves addressing multiple others. (UN, Department of Economic and Social Affairs, Sustainable Development, 2015)

The interconnection of the Sustainable Development Goals (SDGs) is a fundamental aspect of the 2030 Agenda, recognizing that progress in one goal often influences and is influenced by progress in others. Let's consider an example:

Clean Water and Sanitation (SDG 6) and Good Health and Well-being (SDG 3) Improving access to clean water and sanitation (SDG 6) contributes directly to promoting good health (SDG 3). Access to safe drinking water and proper sanitation reduces the risk of waterborne diseases, which, in turn, enhances overall public health.

3.2 Monitoring compliance with Sustainable Development Goals

There is no single monitoring body or system. The "2030 Agenda" stipulates that each member

state should conduct regular and review of progress at national and subnational level. To this end, a set of indicators has been developed by the "Interagency and Expert Group on Sustainable Development Goals Indicators" at UN level. This is constantly being developed and adapted to the given circumstances. In addition to the set of Sustainable Development Goals monitoring indicators developed by the Interagency and Expert Group, each country can create its own indicators for national monitoring and measure themselves against them. The fact that each country sets its own indicators results in a variety of monitoring approaches, which are not comparable with each other. The member states meet annually to inform and exchange information on their progress. The problem, however, is that all member states act independently and prepare their own reports. Also, the Sustainability Development Goals are not binding and have no legal basis, so that there are

no direct consequences or any sanctions for the failing state. Due to this lack of commitment, the goals are repeatedly neglected, in order to gain other advantages for one's own country. Often, it is economic or political benefits, whether they are industrial coun-tries or developing nations.

4 Comparison Sustainable Development Goals and the Human Rights

In figure 3, three distinct clusters are divided. The circle itself presents the human rights. As seen, some goals are transferred out of the human rights, some goals are based on the human rights and the last part is not in context with the human rights. In this part I will compare the Sustainable Development Goals with the single articles of the Declara-tion of Human Rights.

4.1 Transfer of the Human Rights into the Sustainable Development Goals

The first cluster would be the exact corresponden- ce between the SDGs and parts of human rights. Often one SDG includes several different Articles of the Declaration of Human Rights.

Goal 1 "No Poverty: End poverty in all its forms everywhere." This can be found, for example, in Article 23 (2) "Everyone, without any discrimination, has the right to equal pay for equal work", or as well in Article 25 (1) "Everyone has the right to a stand- ard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social ser- vices, and the right to security in the event of un- employment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control."

Even if it is not taken literally, it can be assum- ed that equal pay as well as a standard of living that ensures the family's health and well-being is a measure against poverty.

Goal 2 "Zero Hunger: End hunger, achieve food security and improved nutrition, and promote sus- tainable agriculture." is also found in Article 25 (1) of the Declaration of Human Rights, which states that health and well-being include food.

Goal 3 "Good Health and Well-Being: Ensure healthy lives and promote well-being for all at all ages." is reflected in some articles of the Decla-

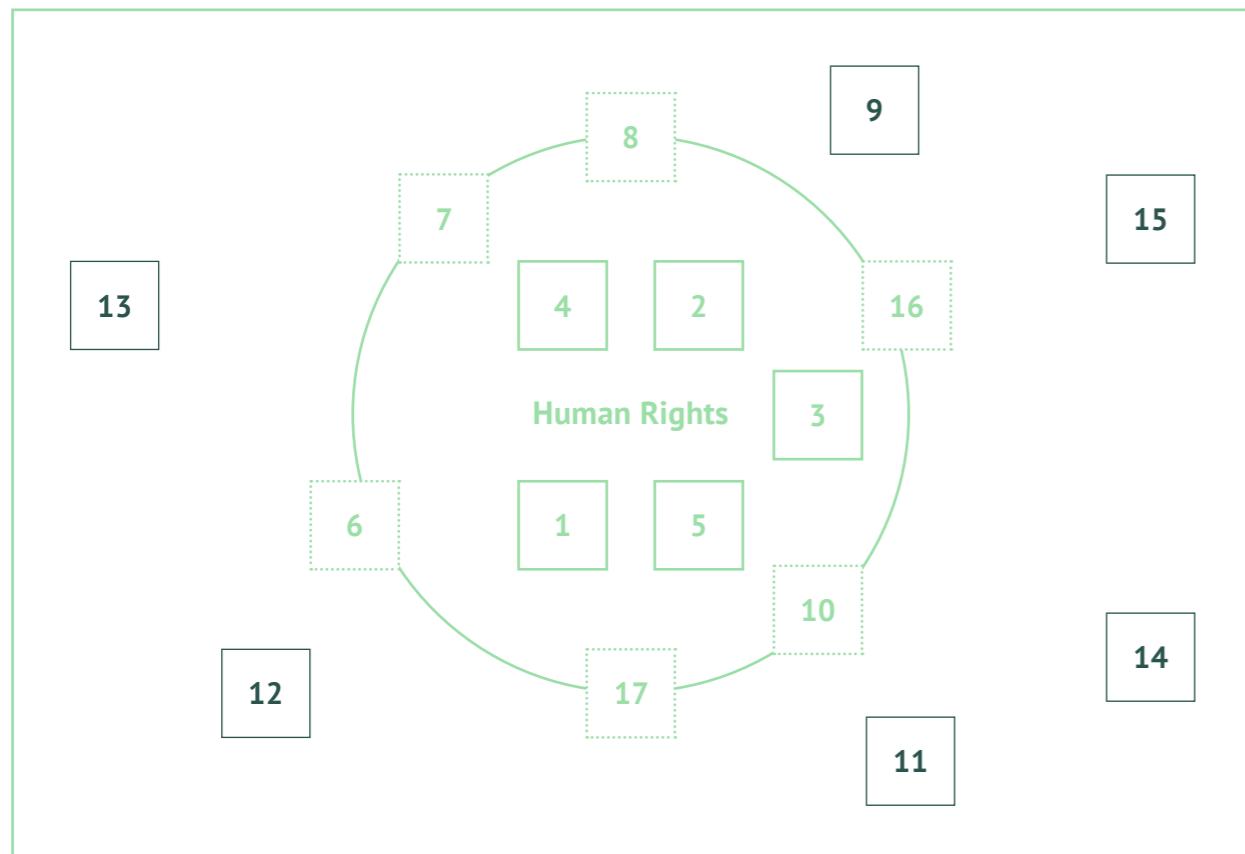


Figure 3: Overview Comparison SDGs a Human Rights

ration of Human Rights. Article 5 "No one shall be subjected to torture or to cruel, inhuman or degrading treatment or punishment". Although it refers more to torture and slavery, it can also be interpreted to mean that if there is no torture and slavery, people are well off, and their well-being is taken care of Article 24 states that "everyone has the right to rest and leisure, including reasonable limitation of working hours and periodic holidays with pay, from which well-being and health can also be derived." This is because overwork and no free time has a negative effect on them. Article 25 also refers to health. This is even mentioned verbatim in the article.

Goal 4 "Equal Education: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all" is explicitly stated in Article 26. Here it says:

"1. Everyone has the right to education. Education shall be free, at least in the elementary and fun- damental stages. Elementary education shall be compulsory. Technical and professional education shall be made generally available and higher edu- cation shall be equally accessible to all on the basis of merit.

2. Education shall be directed to the full develop- ment of the human personality and to the strengthen- ing of respect for human rights and fundamental freedoms. It shall promote understanding, tolerance and friendship among all nations, racial or religious groups, and shall further the activities of the United Nations for the maintenance of peace.

3. Parents have a prior right to choose the kind of education that shall be given to their children." Education is also derived from Articles 23 and 24, since without them there is no possibility of quali- fied work.

Goal 5 is "Gender Equity: Achieve gender equal ity and empower all women and girls". Equality is an important topic in human rights and all arti- cles are accompanied by the reference that human rights apply to everyone. Articles 1 and 2 deserve special mention here. Article 1: "All human beings are born free and equal in dignity and rights. They are endowed with reason and conscience and should act towards one another in a spirit of brother- hood." And Article 2 is more actual, then thought, when it was formulated 1949: "Everyone is entitled to all the rights and freedoms set forth in this Decla-

ration, without distinction of any kind, such as race, colour, sex, language, religion, political or other opin- ion, national or social origin, property, birth or other status. Furthermore, no distinction shall be made on the basis of the political, jurisdictional or inter- national status of the country or territory to which a person belongs, whether it be independent, trust, non-self-governing or under any other limitation of sovereignty". The Sustainable Development Goal also points to equality. For the 1949 version of hu- man rights, equality between men and women, but also of different origins, was already a step for- ward, which from today's perspective does not go far enough, as people still feel disadvantaged in this regard.

4.2 Partly match

The next aspect to consider is the set of Sustain- able Development Goals (SDGs), which are found- ed on human rights but cannot be directly derived from them. To identify specific Sustainable Devel- opment Goals within the realm of human rights, certain assumptions need to be made.

Goal 8 "Decent work and economic growth: Promote sustained, inclusive, and sustainable eco- nomic growth, full and productive employment, and decent work for all" can be derived from all human rights articles that relate to work. For example, article in Article 23 (3) which states, "Everyone who works has the right to just and fa- vourable remuneration ensuring for himself and his family an existence worthy of human dignity, and supplemented, if necessary, by other means of social protection." Article 4 and 24 also deal with the work of the individual, but not with companies. This can therefore only be freely deduced by saying that if everyone has a decent job, is fairly paid and the social system behind it is also right, there is the possibility of economic growth, because through the appropriate remuneration people have the opportunity to use the goods and services they produce because they can afford it. Through sales, development and research can continue and the economy has an opportunity to grow and create new opportunities, jobs and fair conditions.

What is easier to interpret is the Goal 10 "Re- duce inequalities: Reduce inequality within and among countries". It is about inequalities between individual countries but also within one's own so-

ciety. On the one hand, the fact that rights apply to everyone already makes it clear that there must be no inequalities between people. Human rights also mention globality and freedom to travel beyond the borders of one's own country, which also points to a certain extent to equality. Article 13 (2) of Human Rights states: *"Everyone has the right to leave any country, including his own, and to return to his country."* On the other hand, human rights also specify that everyone must be and be treated equally before the law. This is set out in Article 6. *"Everyone has the right to recognition everywhere as a person before the law."*

Goal 16 "Peace, Justice and Strong Institutions: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all, and build effective, accountable, and inclusive institutions at all levels" could be interpreted into any article of human rights or seen as the quintessence of all human rights. This is also summed up well in Article 30 of the Human Rights Act: *"Nothing in this Declaration may be interpreted as implying for any State, group or person any right to engage in any activity or to perform any act aimed at the destruction of any of the rights and freedoms set forth herein"*. Because without peace, justice and strong institutions that implement the rights and control their monitoring and advocate for their enforcement, it makes no sense. As far as the Sustainable Development Goals are concerned, the same principle applies here as well. Everyone needs to work together and pursue the goals together so that the line can be reached.

This is followed by Goal 17 "Partnerships for the goals: Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development", because human rights and the Sustainable Development Goals can only be implemented in the community.

Goals 6 "Clean water and sanitation: Ensure availability and sustainable management of water and sanitation for all." and 7 "Affordable and clean energy: Ensure access to affordable, reliable, sustainable, and modern energy for all" are more difficult. This could be seen as a basic requirement for Article 25, because without water and energy, health cannot be guaranteed. This is one of the basic needs that should be self-evident and that does not need to be pointed out first.

4.3 No match

The third group refers to the Sustainable Development Goals that deal with nature and the climate, these are Goal 9 "Industry, Innovation and infrastructure: Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation", Goal 11 "Sustainable cities and communities: Make cities and human settlements inclusive, safe, resilient, and sustainable", Goal 12 "Responsible consumption and production patterns", Goal 13 "Climate Action: Take urgent action to combat climate change and its impacts", Goal 14 "Life Below Water: Conserve and sustainably use the oceans, seas, and marine resources for sustainable development" and Goal 15 "Life on land: Protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss". In 1949, the subject and research were not yet so advanced, and so was the background problem from which human rights were born in 1949, clearly focused on people and not on nature. But there is no doubt that nature also needs a voice in order for life on earth to continue and will be discussed in more detail in a later chapter of this book.

5 Conclusion

In conclusion, it can be asserted that the 17 Sustainable Development Goals represent, to some extent, a refinement of human rights principles. However, the absence of legally binding obligations diminishes their efficacy, especially considering that violations have existential implications for all life on the planet. Surprisingly, no country or government seems willing to acknowledge full responsibility for these transgressions. Instances like wars exert a severe toll on both the environment and the well-being of the population.

Various injustices persist, undermining the spirit of the Declaration of Human Rights and contravening the ideals of the Sustainable Development Goals. Examples include corporations depleting groundwater in impoverished regions, leaving the local population without access to essential water resources. Additionally, the exploitation of children in mines for the extraction of rare earths, depriving them of education, merely to secure a

meager income for their families, constitutes a clear violation of human rights and the objectives set by the SDGs.

These injustices underscore the urgent need for a shift in societal attitudes and behaviors. The prevalent lack of awareness or delayed recognition of the imperative nature of these issues by governments necessitates a comprehensive reassessment by the entire population. Initiating a boycott against companies engaged in harmful practices becomes crucial to stimulate corporate reconsideration.

Moreover, political leaders should play a more assertive role, enforcing stringent measures that compel major industries to align their practices with the principles outlined in the Sustainable Development Goals. By taking a proactive stance, politicians can not only raise awareness but also hold corporations accountable for their impact on human rights and sustainable development. It is imperative that a collective effort has to be undertaken to prompt a reevaluation of priorities, fostering a global commitment to the ideals encapsulated in both the Declaration of Human Rights and the Sustainable Development Goals.



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The challenges and opportunities of liberal democracies in promoting international value systems

Author: Jacob Mayer

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1 Introduction

1.1 Addressed issue

In 1948, the United Nations proclaimed the Universal Declaration of Human Rights as a guideline for the protection of human rights. Not legally binding, the declaration represents an ideal that must be promoted by those who are committed to it. Among other amendments adopted since 1948, in 1998 the General Assembly passed a declaration seeking to strengthen the responsibility and right to protect human rights. „Stressing that all members of the international community shall fulfill, jointly and separately, their solemn obligation to promote and encourage respect for human rights and fundamental freedoms for all“ (UN General

Assembly, 1998,) this declaration is one of the central starting points of this paper.

The Universal human rights formed the basis for many subsequent international treaties and agreements, one of the most recent being the 2030 Agenda with the SDGs. The legal situation of these agreements differs greatly in terms of their binding nature and enforceability. These issues will be examined in more detail in the following parts of this publication series. However, it should be noted here that successful implementation of the written goals requires voluntary debate and implementation. In today's multicultural, international context, some countries have significantly higher financial as well as social capital to fulfill these responsibilities.

Based on the assumption that many of the existing liberal democracies fulfill these criteria of higher capacities, which will be discussed again in the course of the data analysis, this paper attempts to answer the question of what special responsibilities but also what opportunities are offered in this particular position.

1.2 Structure of this paper

To begin with, the current data situation will be examined in more detail. The focus here is on the international comparison of various reference values that are relevant to the issue at hand. First, we will take a brief look at the Human Rights Index (HRI), as processed by Our World in Data, what characteristics it has in international comparison and what questions and challenges can be derived from it. We will then take a look at the 2023 Sustainable Development Report (SDR). Here, again, we will try to recognize certain patterns in the international comparison. In a second step, we will link the progress of the individual countries with the respective income level, as already shown in the SDR. In addition, we include the Democracy Index, published by The Economist, in our data analysis. In the final step, we use all the data to build an overall picture that allows us to see the progress of global development in our area of interest and the associated challenges.

In the following step, the results of this data analysis will be combined with further research findings and the question of the responsibility of liberal democracies in an international context. The challenges but also opportunities and possible benefits of promoting human rights and SDGs will be examined in more detail. Before concluding, we will try to generalize our findings to paint a picture of the inherent resilience of human rights and SDGs.

2 Comparison of data

In the following sections of the data analysis, the respective indices are first briefly described. Subsequently, the respective observations that are relevant to the research question are highlighted. The observations are summarized in section 2.5.

2.1 Human Rights Index (2022)

It is important to note that different organizations may develop their own human rights index using

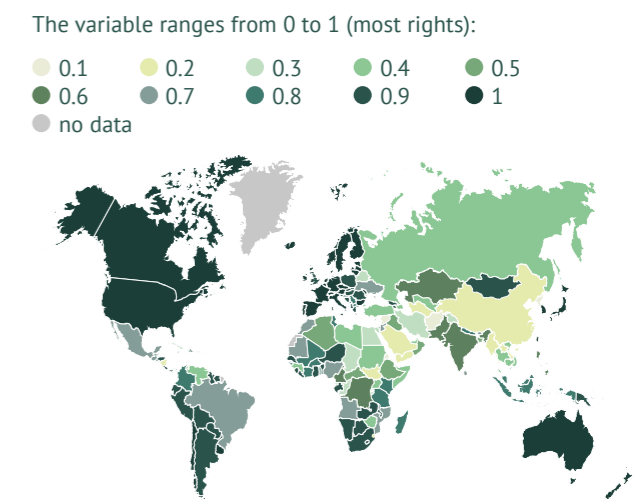


Figure 4: Human Rights Index (V-Dem, 2023)

different methodologies and indicators. Today we look at the HRI, which is published by Our World in Data and is based on research by the Varieties of Democracy (V-Dem) project.

The index tool uses a simple scale from 0 to 1, with 1 indicating the best level of human rights development. The data shows the development over time with initial assessments since 1789 as well as the current situation in international comparison shown in Figure 4.

The first thing to note is the considerable differences between human rights developments. In 2022, North Korea is at the lowest end of the scale with a score of 0.01, followed by 5 other countries with a score below 0.1. Sweden, New Zealand and Denmark are at the highest end of the scale with a score of 0.95 (V-Dem, 2023).

2.2 Sustainable Development Report (2023)

The Sustainable Development Report provides a comprehensive analysis of how countries are performing in terms of meeting the various targets set out in the 2030 Agenda for Sustainable Development. As one of the most important instruments for the global development of the United Nations, the annual report enables the improvement of activities to achieve the goals and highlights the remaining challenges.

The world map in Figure 5 shows the development status of the SDGs on a scale from 0 to 100, where 100 is equivalent to achieving all 17 goals. As with HRI, there are major differences in

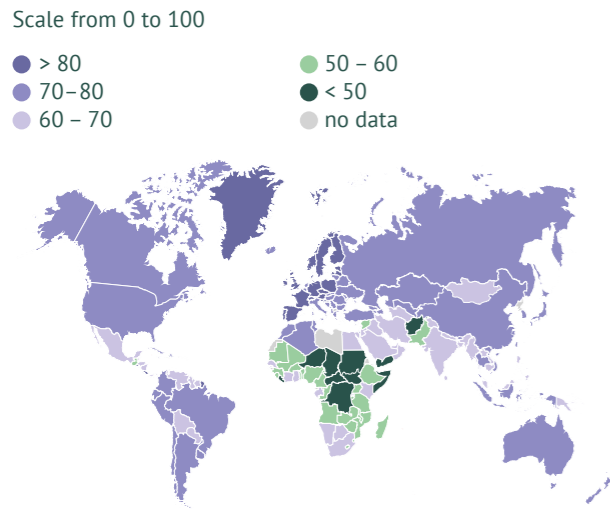


Figure 5: SDG overall score 2023 (Sachs, et. al., 2023)

the international comparison. A special factor that was taken into account when calculating the SDG Index is so-called spillovers. Negative and positive effects, for example along international supply chains, are included in this calculation. Examining these effects more closely and including them in the discussion on global sustainable development is one of the most important points in the question of responsibility. In the 2023 report, the researchers point out that high-income countries (HICs) have a significantly higher negative impact than low-income countries (Sachs et. al., 2023)

2.3 SDGs and country income level

The classification by income level is published by the World Bank every year on July 1. As can be seen in Figure 3, a distinction is essentially made between four income classes, the decisive factor being the value of the gross national income (GNI) per capita.

The SDG Index and country income levels are intricately connected, reflecting the interplay between economic development and progress towards achieving the SDGs. Lower-income countries may face challenges in allocating resources to address multiple SDGs simultaneously. They may prioritize basic needs such as poverty reduction, access to clean water, and healthcare before tackling more complex sustainability issues. It is therefore not unexpected that there is a certain similarity between Figures 6 and 7, which will be discussed in more detail in Section 2.5.

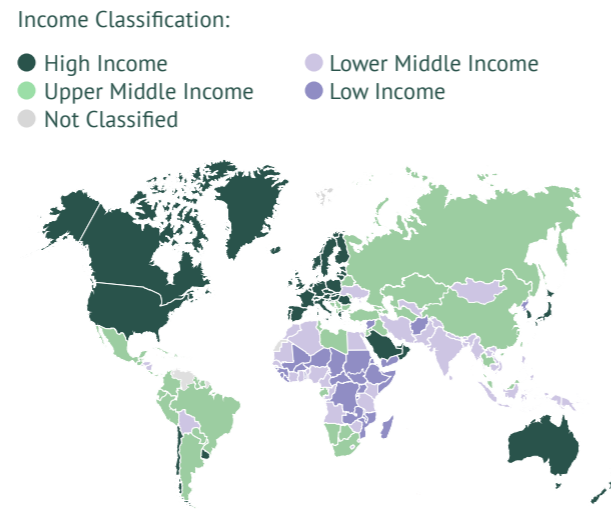


Figure 6: Country Income Level (Hamadeh, et. al., 2022)

2.4 Democracy Index (2022)

The Democracy Index is a comprehensive tool designed to evaluate and measure the state of democracy in countries around the world. On a scale of 0 to 10, all countries worldwide are compared in terms of the implementation of fundamental democratic rights. Produced by The Economist, the index provides a systematic assessment of political freedoms, electoral processes, government functionality, and civil liberties. By assigning scores to nations based on a set of criteria, the Democracy Index offers insights into the quality and health of democratic governance globally.

Figure four again shows major international differences. When looking at this indicator, it becomes particularly clear that regional and historical characteristics also play a major role in the evaluation of the results.

2.5 Observations and interrelations

The HRI, the SDG Report, the country income level, and the Democracy Index represent distinct but interconnected tools for assessing and understanding various aspects of a country's development and governance. Each index contributes a unique perspective to the broader narrative of global progress, and they often converge in highlighting the intricate relationship between human rights, sustainable development, income, and the quality of democratic governance. To emphasize the global differences, the respective results for Afghanistan and Sweden are shown side by side in Table 1.

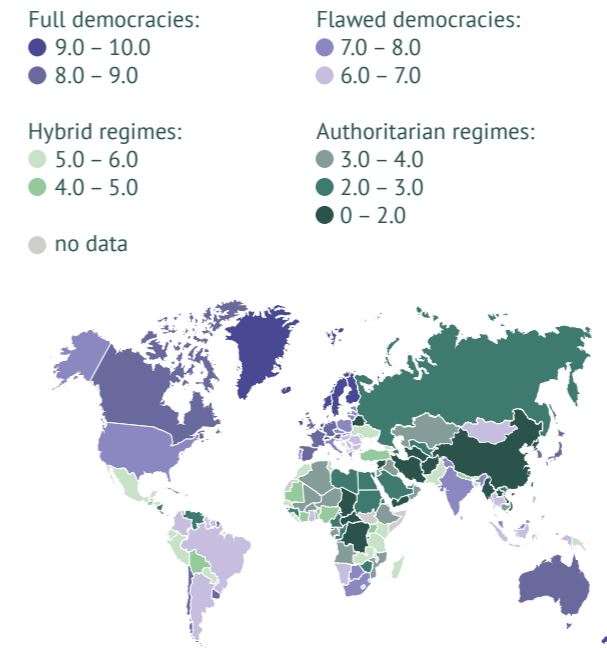


Figure 7: Democracy Index, 2022 (The Economist, 2023, p. 5)

Sweden represents an economically strong liberal democracy and performs above average in all rankings. In contrast, Afghanistan shows how countries with low incomes and a low level of freedom and human rights are also lagging behind in terms of sustainable development.

To conclude the data analysis, reference should be made once again to the previous graphs. Because they show particularly clearly that correlations are recognizable. Not only human rights and democracy complement each other, but also economic success and the subsequent progress in achieving the SDGs.

3 Promoting international value systems

The preceding data analysis not only makes it clear that there are significant differences in the progress of the implementation of the value systems examined, but also that these are intertwined and are also influenced by external factors such as the financial situation. In his publication "Actualizing Human Rights", Jos Philips describes three main issues: the challenge of global inequality, the challenge of future people and the question of motivation (Philips, 2020). In the following section, the role of liberal democracies in promoting international values systems will be considered on the basis of these three issues.

Characteristic	Afghanistan	Sweden
Democracy Index	9.39	0.32
Human Rights Index	0.02	0.95
SDG Score	49.0	86.0
Income level	Low income	High income

Table 1: Overall comparison of Afghanistan and Sweden (own visualization)

3.1 Role of liberal democracies

Liberal democracies are characterized not only by a stable democratic system but also by a high degree of realized human rights and, with a few exceptions, a good GNI. These countries therefore have a particularly good starting point when it comes to issues of sustainable development and international cooperation. And it is not only the aforementioned UN declaration that calls on the international community to provide mutual support, voices are also currently being raised calling on the international community to act. In its latest annual report, Amnesty International draws attention to the special role of international support and also denounces the different treatment of various conflicts. Abuses are particularly denounced when Western states see no personal economic risk in raising their voices (Amnesty International, 2023). This problem leads to the first more specific question about the responsibility of liberal democracies. What challenges do they face when trying to stand up for their values and achievements internationally?

3.1.1 Challenges faced by Liberal Democracies

In his remarks on the challenge of global inequality Philips concludes that even in an ideal world, a certain degree of inequality in the protection of human rights is inevitable. This is attributed to the persistence of largely sovereign states with different capacities to protect human rights, to differences in wealth and technology, and to limited external assistance. However, it also emphasizes the importance of having very good reasons for denying equal protection to ensure that vulnerable populations are not neglected. He concludes

that in this less than ideal world, many inequalities in protection are often linked to global injustices that require immediate efforts for change (Philips, 2020).

In the recently published World Inequality Report the authors add another layer to the topic of inequality. They show that, in addition to inequality between individual countries, particularly large inequalities within countries are also becoming a problem (Chancel et. al., 2022). In Germany, for example, inequality has increased further in recent years and the top 10% currently earn on average ten times as much as the bottom 50% (Chancel et. al., 2022). A rise in inequality therefore poses several challenges for liberal democracies. On the one hand, they must face up to the challenging fact that their economic superiority in a globalized world means that they should also take responsibility for problems in other countries. On the other hand, they must become aware of the growing inequality in their midst in order to prevent their own destabilization.

The challenge of future people not only raises the question of the rights of future generations, but generally also the question of the balancing of the rights of different stakeholder groups against each other. These questions lead to a deep examination of various human rights factors. At what point can they be asserted, what degree of equality should be sought if, as noted in the last question, complete equality is not possible at all.

The challenge of future people not only raises the question of the rights of future generations, but generally also the question of the balancing of the rights of different stakeholder groups against each other. These questions lead to a deep examination of various human rights factors.

From these questions, Philips develops a possible framework with the help of which such dilemma situations could be dealt with (Philips, 2020).

Inevitably linked to these issues are the pressing challenges of climate change. This topic brings together almost all of the issues mentioned so far. One term that unites all these issues is the call for climate justice. The Unicef Climate Justice Roundtable, which brought together a group of activists and experts, defines the term as "combatting social injustice, gender injustice, economic injustice, intergenerational injustice and environmental injustice" and see the logical consequence and solution in large-scale systemic change (UNICEF, 2022). Therefore, the call for climate justice can be seen as one of the central challenges for governments, especially for those who have benefited from injustice in the past. To bridge the gap to the challenge of future people it should also be noted at this point that although the topics addressed are more important than ever, they are by no means as new as their prominent place on the everyday agenda. Already in 1972 at the United Nations Conference on the Human Environment these claims were represented:

„To defend and improve the human environment for present and future generations has become an imperative goal for mankind—a goal to be pursued together with, and in harmony with, the established and fundamental goals of peace and of worldwide economic and social development (United Nations, 1972).“

The list of challenges mentioned is certainly not exhaustive, many challenges arise in everyday political life and differ in each country, the problems presented are intended to focus on systemic responsibility. Following on from this, the next section will focus on the possibilities and opportunities and use the question of motivation to paint a picture of how and why a commitment to international value systems can be worthwhile.

3.1.2 Opportunities for Liberal Democracies

The question of motivation as discussed by Philips goes into great theoretical depth as to which material and immaterial needs of people must be met in order to guarantee that they do not violate the rights of others. Similarly, the question of which needs can or must be fulfilled to what extent in

order to maintain a society of human rights over several generations, with fluctuating priorities of their needs, is also discussed very theoretically. In his conclusions, he finally addresses the optimism of the theories presented and suggests them as a means of achieving an ideal to strive for in decision-making situations (Philips, 2020).

So what scope do the various threats and the question of motivation open up for decisions in terms of internationally realized human rights and sustainability goals? To approach an answer to this question, an example at the national level will be used in the following to finally make a theoretical transfer to the international level.

In one of her publications, Sonja Grimm discusses the extent to which respect for human rights is a commitment to democracy. Similar to her considerations, the following section also assumes that respecting human rights is a desirable goal of political action. In one of her publications, Sonja Grimm discusses the extent to which respect for human rights is a commitment to democracy. Similar to her considerations, the following section also assumes that respecting human rights is a desirable goal of political action. In her final remarks, Grimm comes to the conclusion that political participation is part of the self-determination given by human rights. Consequently, political participation should be made possible for everyone (Grimm, 2004). The fact that even countries with a high degree of realized democracy can improve can be illustrated by the example of Germany. On the one hand, statistical surveys show a decline in confidence in the government (Statista, 2024) and on the other hand the demands for political participation rights that go beyond the right to vote are becoming louder and more urgent. For example, through the demands of the climate activist group „Letzte Generation“, which is calling for a social council to solve climate policy issues (Letzte Generation, 2024).

Finally, climate policy issues also draw attention to the international context. They draw a link to the demands of the United Nations SDGs and what means are needed to assume international responsibility. In her analysis of securing human rights, Sonja Grimm comes to the conclusion that even military deployment abroad could be justified if proportionality is maintained (Grimm, 2004). In

defense of climate justice, strict economic actions and conditions, such as functional supply chain laws, could be well justified. Scientific findings from the V-Dem Democracy Report support this thesis. It shows that the economic power of autocratic states is increasing significantly and that the share of global trade between democratic states has fallen from 74% to 47% in the last 24 years. The authors therefore call for a closer examination of the growing power of autocratic states and how these trends can be counteracted (Papada et. al., 2023)

3.2 Resilience of universal human rights and SDG's

The final question of resilience will not be answered with certainty. The above observations and findings only allow some conclusions to be drawn about the long-term existence of international value systems. First of all, it must be noted that the trends of radicalization and strengthening autocracies show that human rights, democracy and the associated objectives of the SDGs are by no means immanently resilient to attacks.

On the other hand, the many different institutions dedicated to the protection and implementation of these ideas show that there is a strong international civil society that has acquired knowledge and tools for the defense of liberal democracies over many years. V-Dem analyzes the example of countries in which autocratic processes have been reversed and comes up with five effective means of redemocratization. United opposition uniting with civil society and international support and protection of democracy are two of these means (Papada, et. al., 2023), and they support the assumption that the above-mentioned challenges and opportunities of liberal democracies and a systematic exploration of scope for action can lead to effective policies

4 Conclusion

Firstly, in the previous sections, both in the data analysis and in the following discussion of the theoretical and practical opportunities and risks, it was emphasized at various points how closely the various topics are intertwined and connected. And regarding the question of motivation, Philip's comment on aspirational ideals was also mentioned. However, if one assumes that the status

achieved in liberal democracies is the aspirational goal for other countries, the aspirational goal for liberal democracies could be even more far-reaching. In concrete terms, liberal democracies could use the freedom available to them to pursue goals that transcend national borders. When considering arguments about historical or spillover effects that contribute to responsibility for negative consequences abroad, aspirational goals in terms of international responsibility should almost be self-evident.

Secondly, the idea of resilience developed in the previous section should be emphasized and specified once again. The resilience of international value systems is not predetermined, but grows and falls with the mass of people and institutions that are involved in defending and promoting them.

Finally these conclusions give rise to a network of social responsibility and self-preservation interests for liberal democracies. They are called upon to promote active engagement and dissemination of these ideas and to enforce the nationally applicable values and norms in their actions in the international context.



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Effective conflict resolution through ADRs: opportunities, challenges and applications in different contexts

Author: Pauline Nicolay

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1 Introduction

The achievement of sustainable development hinges on safeguarding the environment, preserving natural resources, and fostering economic growth that is intricately linked with responsible resource utilization. In simpler terms, sustainable development is contingent upon maintaining environmental sustainability. Conversely, Goal 16 of the 2030 Agenda for Sustainable Development emphasizes the need for global peace, justice, and robust institutions, aiming to uphold the rule of law and facilitate access to justice on a worldwide scale. Addressing environmental conflicts is an integral facet of environmental sustainability and a crucial

component of ensuring access to justice. The escalating environmental challenges stemming from the relentless growth of the global population and the insufficient global adoption of renewable energy resources have significantly impacted the environment, leading to a corresponding surge in environmental conflicts.

Given the considerable diversity in the judicial systems of nations worldwide and the often inefficacious nature of these systems, there arises a pressing need to reconsider and reconstruct effective alternative dispute resolution mechanisms, especially concerning their role in environmental conflicts. However, it is essential to acknowledge

that Alternative Dispute Resolutions (ADR) come with their own set of barriers and drawbacks. (Alk-hayer, Gupta, Gupta, 2022)

This paper delves into a comprehensive examination and analysis of the role played by ADR methods in addressing environmental disputes. It assesses the effectiveness of these methods and conducts research to identify the factors that contribute to their success or failure.

2 History

Throughout most of the human history, the world's population constituted only a minuscule fraction of its present size. In the last 200 years the population increased by approximately 7 billion. (Ritchie et. al., 2022) This period witnessed transformative events such as two World Wars, technological advancements, and heightened awareness of environmental threats. These changes underscored the imperative for international collaboration to steer them towards serving the world and its inhabitants through the pursuit of sustainable development and averting associated hazards. (Pufé, 2014)

The Earth Summit held in Rio de Janeiro, Brazil, in June 1992 marked the initial step, where over 178 nations endorsed the so-called Agenda for 2021 – a comprehensive strategy fostering global cooperation to enhance sustainable development, improve lives, and safeguard the environment. A subsequent milestone was the World Summit on Sustainable Development in South Africa in 2002, which adopted the Johannesburg Declaration on Sustainable Development and the Plan of Implementation. These documents reaffirmed the global community's environmental responsibilities while underscoring the necessity of multilateral collaborations. (United Nations, 1992)

In January 2015, this trajectory reached a pinnacle when the General Assembly initiated negotiations for the post-2015 development agenda. By September 2015, the United Nations Sustainable Development Summit accepted the 2030 Agenda for Sustainable Development. This agenda outlines a shared vision among member states for achieving prosperity and lasting peace for humanity and the world. Central to the agenda are the Sustainable Development Goals (SDGs), considered its core and an urgent call for all nations, both

developed and developing, to collaborate within a universal framework. (United Nations, 2023)

Of particular significance is Goal 16th of the 2030 Agenda, which focuses on enhancing the rule of law and ensuring access to justice on a global scale. (United Nations, 2023) This goal serves as a vital link between sustainable development and ADR methods. (BMZ, 2023) The interplay among various objectives of sustainable development is crucial to realizing environmental sustainability. Swift and effective resolution of environmental conflicts is a key aspect of both environmental sustainability and the 16th Goal of the 2030 Agenda for Sustainable Development. To attain peaceful resolutions in environmental matters, there is a need to re-evaluate and revamp dispute resolution systems. (Pufé, 2014)

In the 1970s, Alternative Dispute Resolution (ADR) was first introduced as an experiment to cope with court congestion and resolve environmental and natural resource disputes. In 1985, the Attorney General recognized the importance of ADR to achieve time and cost savings in civil matters. Several years later, the Department of Justice reaffirmed the benefits of ADR when the Assistant Attorney General for the Office of Legal Counsel testified before Congress in support of the first ADR legislation passed by Congress in 1990. (OPM, n.d.)

3 The function of alternative dispute resolution in the pursuit and attainment of justice

As already mentioned, attaining justice stands out as one of the primary objectives within the framework of sustainable development. ADR has demonstrated itself as a practical and successful alternative to conventional methods, particularly when considering the significant challenges and impediments faced by official judicial authorities and national courts. Therefore, the role of ADR as an alternative method for settling disputes and an essential avenue for accessing and achieving justice cannot be overlooked. (DIS, n.d.)

In the United Nations the ADR are regulated in the Directive on Alternative Dispute Resolution for the Settlement of Consumer Disputes. (Official Journal of the European Union, 2013) ADRs are settled in the Permanent Court of Arbitration in

Unlike other ADR methods, negotiation does not require the involvement of a neutral third party to render a final and binding decision. The resulting binding agreement is an outcome of the negotiation process conducted directly between the disputing parties themselves.

the Hague. (PCA, n.d.) The ADR encompasses a range of non-traditional dispute resolution methods, including negotiation, conciliation, mediation, and arbitration. These mechanisms serve a function akin to that of the official judiciary system in resolving disputes between various entities, whether physical or legal. However, ADR methods distinguish themselves through their cost-effectiveness, time efficiency, flexibility, and consensual resolution processes. Simultaneously, certain types of ADR methods share advantages with the judicial process, such as the issuance of binding awards and the ability of official authorities to intervene and enforce the parties' compliance with the binding content of ADR awards. (DIS, n.d.)

In essence, ADR awards yield results that are legally enforceable, akin to judicial decisions. Additionally, the consensual nature of the ADR process enhances its suitability for the parties involved in disputes. Consequently, conducting thorough research and delving into the examination of the role of ADR in sustainable development, particularly its contribution to accessing justice in environmental challenges and disputes, requires a foundational understanding of each individual ADR method. (DIS, n.d.)

3.1 Negotiation

As described in Art. 16 of the Aarhus Convention and Art. 25 of the Minamata Convention on Mercury, Negotiation stands out as the simplest and most consensual method within ADR. Unlike other ADR

methods, negotiation does not require the involvement of a neutral third party to render a final and binding decision. The resulting binding agreement is an outcome of the negotiation process conducted directly between the disputing parties themselves. This approach is grounded in the rationale that if the parties initiated the negotiation process independently, without the intervention of a third party, to create a contract stemming from a dispute, it is logical to employ a similar negotiation process to reach an agreement for resolving the dispute without external intervention. It is crucial to underscore that the negotiation process is distinct from judicial or arbitral procedures. In other words, the outcome of negotiation should not be construed as an arbitral award or judicial decision. Rather, it can be considered a new agreement or contract that is binding, guided by the principle of the obligatory nature of contracts. This means that the parties involved in the dispute can alter the results of the negotiation at any time if all parties agree to these changes. It can be stated that the result of the negotiation is binding but not final, in contrast to judicial decisions or arbitral awards, which are both binding and final and cannot be altered after their issuance. (Shamir and Kutner 2003)

3.2 Conciliation and Mediation

Conciliation and mediation represent alternative dispute resolution (ADR) methods that involve a collaborative approach facilitated by an impartial and unbiased third party, commonly referred to as a "conciliator" or "mediator." In these processes, the third party oversees constructive dialogue sessions among the disputing parties, guiding them in discussing their contentious issues to reach a solution. The conciliator or mediator assumes a consulting and advisory role, suggesting potential resolutions and remedies for the conflicts. The outcomes of the conciliation and mediation processes result in a binding and final settlement agreed upon by the parties. Both processes are voluntary, contingent on the will and consent of the disputing parties, and uphold confidentiality, prohibiting the disclosure of proceedings to external parties. These methods are particularly popular in delicate, confidential, and private conflicts, prioritizing the parties' interests and relationships over legal standards. (ICSID, n.d.)

In contrast to an arbitrator or judge, the mediator does not wield decision-making authority. Instead, the mediator's role is to facilitate the parties in reaching a mutually acceptable resolution to the dispute. Even when parties have initially agreed to engage in mediation, they retain the freedom to withdraw from the process at any point following the initial meeting if they determine that its continuation does not align with their interests. Nevertheless, it is common for parties to actively engage in the mediation once it commences. If the parties opt to proceed with the mediation, they collaborate with the mediator to determine the manner in which the process should unfold. (PCA, n.d.)

While conciliation and mediation are sometimes used interchangeably, it is essential to recognize that facilitation primarily enhances dialogue between parties, whereas mediation aims to establish an agreement. Through the exploration of their interests and open dialogue, mediation often leads to a settlement that generates more value than would have been possible without the occurrence of the underlying dispute. The non-binding and confidential nature of mediation minimizes risks for the parties while yielding substantial benefits. It can be asserted that mediation never truly fails, even when a settlement isn't reached, as it prompts the parties to define the facts and issues of the dispute, thereby laying the groundwork for potential arbitration or court proceedings. (WIPO, n.d.)

Fundamentally, while the settlement agreement arising from mediation and conciliation is expected to bind and conclude the dispute for the involved parties, it does not necessarily elevate to the status of an arbitral award or judicial decision in terms of enforceability. Consequently, the question arises: what recourse has a party if another party refuses to abide by the agreement's terms? In jurisdictions like India, the conciliation settlement agreement is deemed to have the same value and effect as an arbitral award issued by an arbitral tribunal. Conversely, in other jurisdictions, settlements resulting from conciliation and mediation may lack enforceability or support from official authorities. In such cases, the settlement is regarded as a new agreement or contract, binding based on the compulsory nature of contracts. (ICC, n.d.)

Instances where disputes emerge from the implementation of a conciliation or mediation agreement may necessitate recourse to an arbitral or judicial process to validate official authority intervention. Nevertheless, this does not diminish the significance of conciliation and mediation as ADR methods, particularly in dealing with highly sensitive contentious issues. In such scenarios, parties may be hesitant to opt for binding and enforceable methods like arbitration, which yield a final and binding award, leaving them with no avenue to alter or amend its terms. (Alkhayer et. al., 2022)

3.3 Arbitration

Arbitration stands out as one of the ADR's, closely resembling the judicial process, given its adjudicative nature rather than a consensual approach. In essence it can be viewed as a mixture of litigation and ADR. It is a process in which, through mutual agreement, parties submit a dispute to one or more arbitrators empowered to render a binding decision. By opting for arbitration, the parties select a private mechanism for resolving their dispute rather than pursuing a resolution through the formal court system.

For prospective disputes arising from a contract, parties typically incorporate an arbitration clause into the relevant contractual agreement. In the case of an existing dispute, parties can initiate arbitration through a submission agreement. It is important to note that, unlike mediation, withdrawal from arbitration cannot be undertaken unilaterally by a single party.

The decision is made to establish a three-member arbitral tribunal – each party responsible for appointing one arbitrator. Subsequently, these two arbitrators collaborate to select the presiding arbitrator. The parties delineate their jurisdiction and specify applicable procedural laws. Parties can also determine the seat of arbitration and the language used during the proceedings. (WIPO, n.d.)

In the contemporary context, heightened awareness of environmental perils necessitates a corresponding awareness of environmental justice, an integral component of overall justice. Access to justice, a crucial goal in sustainable development, must encompass access to environmental justice, particularly in the governance of natural re-

sources. Environmental justice assumes a pivotal role in shaping effective policies, and neglecting environmental preservation can undermine the vision of sustainable development. This underscores the importance of promoting channels for accessing environmental justice, with ADR methods representing noteworthy options within this array of channels. (ICC, n.d.)

4 Practical application of ADR methods

UN member states exhibit variations in the adoption of ADR methods, influenced by factors such as the nature of the dispute and the most appropriate procedure for resolution. ADR implementation may take the form of a local panel for addressing complaints or grievances, an institutional panel, and may be conducted either confidentially or publicly. Successful experiences with ADR have been noted in cases where parties exhibit a willingness to engage in negotiation, compromise, and make concessions to achieve an agreement, irrespective of procedural intricacies.

In general, the active participation of all relevant parties and stakeholders, coupled with their genuine intention to achieve an agreement and their commitment to safeguard environmental public interests, stands out as a crucial contributing factor to the success of ADR methods. However, in contrast, certain cases have revealed that the involvement of multiple parties, without their influential participation, hinders the attainment of a solution. Overall, factors such as a lack of trust between parties, reluctance to agree on a specific ADR approach, or an unwillingness to make concessions for a mutually satisfactory settlement, pose challenges to reaching a final resolution through ADR. The following paragraph examines cases from different countries to illustrate how these mentioned factors impact ADR mechanisms. (Alkhayer, et. al., 2022)

4.1 Returning the protected status to natural areas in the Lviv region (Ukraine)

In the Lviv Region, the reinstatement of protected status to natural tracts served as a noteworthy example, demonstrating the utility of the ADR method in expeditiously preserving vital forest lands that might have otherwise faced deforestation. Environmental Non-Governmental Organi-

sations (NGOs) and experts collaborated to contest the Regional Council's decision to declassify the region as a protected area without a scientific foundation. Informally and virtually, media campaigns acted as a "facilitator," supporting discussions that culminated in the formation of a panel comprising key stakeholders responsible for assessing and determining the status of protected areas. (Tharakan and Lahoti 2019)

4.2 IPPC permit for the Kunda Pulp Plant Factory (Estonia)

The ICCP permit for the Kunda Pulp Plant Factory in Estonia serves as a successful example of mediation between an NGO and developers. A legally binding agreement regarding the conditions of an Integrated Pollution Prevention and Control (IPPC) permit was achieved. In this case, AS Estonian Cell aimed to construct a Greenfield aspen pulp plant in the eastern part of Kunda Laane-Virumaa, Estonia. An environmental impact assessment was conducted following Estonian environmental impact assessment regulations and subjected to the Environmental Auditing Act of 2000. The approved environmental impact assessment was granted by the Ministry of Environment on July 29, 2002. (Tharakan and Lahoti, 2019)

The AS Estonian Cell applied for an IPPC permit, which prescribed pollution prevention measures. The Estonian Fund for Nature was the first to challenge the IPPC, expressing concerns about its shortcomings posing a severe threat to the Baltic Sea's marine ecology. A negotiation process ensued among the stakeholders, leading to an agreement to modify the conditions, resulting in the issuance of a new IPPC. While the mediation technique proved valuable in demonstrating the potential for key stakeholders to reach an agreement, the final outcomes required substantial concessions from both sides, leaving neither entirely satisfied. Additionally, factors such as a lack of time and experience, especially on the part of the NGOs, contributed to the complexity of the process. (ibid)

4.3 Saaremaa Harbour (Estonia)

Contrastingly, the situation at the Saaremaa Harbour illustrates that ADR may not be a feasible option when there is a lack of willingness from either side to arrive at a solution, resulting in dis-

satisfaction among all involved parties. In this scenario, the proposal to construct a port on Saaremaa Island within a gulf designated as a Special Protected Area for birds faced opposition from environmentalists. NGOs contested the environmental impact assessment and water usage permissions issued by the ministry. Despite the NGOs making efforts to engage in negotiations with the construction company to explore a potential resolution, the Ministry declined to participate, leading to the rejection of the initiative. (Tharakan and Lahoti, 2019)

4.4 Szentgal regional landfill (Hungary)

The Northern Lake Balaton Regional Waste Disposal Facility was part of a larger initiative aimed at overhauling solid waste disposal practices in the country, and the project received an environmental permit. However, challenges to the permit were raised by neighbouring communities. Two NGOs attempted to mediate the conflicts among the parties by providing information on suitable measures for resolving the disputes. Unfortunately, none of the parties agreed to initiate any of the proposed measures. Faced with disagreement on a specific method, the NGOs initiated facilitated negotiations. However, due to the reluctance of some conflicting parties and the absence of others, no resolutions were achieved. This case underscores the crucial role of trust among conflicting parties, as the lack thereof emerges as the primary factor leading to the failure of ADR methods in environmental conflicts. (ibid)

The case of the Szentgal regional landfill underscores the crucial role of trust among conflicting parties, as the lack thereof emerges as the primary factor leading to the failure of ADR methods in environmental conflicts.

4.5 Conclusion of the Case study

The instances mentioned underscore that engaging in ADR processes within the realm of environmental conflicts not only enhances public and NGOs' access to justice but also proves to be both time and cost-efficient. Additionally, the parties in conflict gain a deeper understanding of the issues at hand, resulting in greater satisfaction with the solutions reached. This, in turn, paves the way for long-term benefits in case of any subsequent or consequential concerns. However, the slow adoption of ADR is largely attributed to low levels of commitment, particularly among public authorities, who harbour concerns about relinquishing power and are hesitant to depart from the entrenched litigation culture.

The effectiveness of ADR measures, as a general concept, faces challenges due to the complexity of certain issues or an increasing number of stakeholders involved. Despite these obstacles, a careful evaluation of the advantages and disadvantages leads to the conclusion that ADR methods hold significant promise for the future.

5 The incorporation of ADR in addressing environmental conflicts on a global scale

The initiation of promoting access to environmental justice can be traced back to the Rio Declaration of 1992. Principle 10 of the Rio Declaration outlined three fundamental rights regarding environmental challenges, establishing key pillars of environmental governance. It underscored the importance of making information about environmental hazards accessible to the public, ensuring public participation in decision-making processes, and providing accessible channels for individuals to seek justice. (UNEP, 2016)

Taking a significant stride forward, the Aarhus Convention of 1998 further endorsed the principles set forth in the Rio Declaration. Article 16 of the Aarhus Convention supported the general standards articulated in the Rio Declaration and encouraged the resolution of disputes through amicable methods such as conciliation and mediation, or any other type of conflict resolution. Additionally, it allowed for the pursuit of binding methods like arbitration and adjudication if amicable approaches proved unsuccessful. (BMUV, n.d.)

United Nations General Assembly Resolution 65/283, building on these foundations, urges the consolidation of mediation as a peaceful method for settling disputes, preventing conflicts, and resolving existing conflicts. The resolution highlights the crucial contributions of various entities, including Member States, regional and international organisations, institutions, and civil society activities. It emphasizes the need to explore new perspectives and ideas to enhance the adaptation of mediation and amicable methods to contemporary conflicts. (United Nations, 2011)

The importance of ADR in conflict resolution gained further validation with the signing of the Minamata Convention on Mercury in 2013, which came into force in 2017. Article 25 of the Minamata Convention echoed the stance of Article 16 of the Aarhus Convention, supporting the amicable resolution of disputes through peaceful means chosen by the parties, such as negotiation and mediation, before resorting to mandatory methods like arbitration or adjudication. (UNEP, 2019) This underscores the international community's recognition of the substantial theoretical value attributed to ADR as a peaceful method for resolving a wide range of contemporary disputes and conflicts, spanning civil disputes to environmental cases and beyond. (BVL, n.d.)

6 The standard of justice, administration and representativeness of environmental ADR

The acceptance of ADR methods in addressing environmental challenges is contingent on two crucial pillars: efficiency and justice. While the efficiency of ADR methods is generally acknowledged, a debate surrounds the extent to which these methods meet the standards of justice applied by the courts. Concerns about the justice of ADR methods have been raised, emphasizing that the process relies on the will of the parties involved, potentially compromising justice standards set by the courts. It is argued that the parties' will, which forms the basis of ADR methods, may lower the standards and conditions of justice. In contrast, the courts or judicial authorities cannot disregard these standards, as they cannot invoke the pretext of the parties' will. Additionally, the absence of accountability of third parties in

private conflict settlement may lead to the loss of several legal values and principles crucial in public litigation, such as the neutrality of third parties. (Brown, 2000)

Another concern revolves around the administration of ADR methods. The consensual and private nature of ADR methods increases the difficulty of inspection by official authorities and the public, resulting in a lower level of transparency compared to judicial methods. In environmental conflicts, the representativeness of all parties is deemed the most critical element, especially considering the subsequent impact of these disputes. Ensuring public and representative stakeholder engagement in environmental disputes is necessary. In the field of sustainable development, this element should extend to include the representation of future generations.

To address these issues, it is essential to note that ADR methods are not solely based on the will of parties; they are recognized and established by laws and regulations issued by legislative authorities in most countries. These laws administer and regulate ADR methods, imposing limitations and restrictions on the process. While the mentioned problems are not concentrated in ADR methods themselves, but rather in the laws and regulations governing them, the extent of freedom of the ADR method can be influenced by these laws. (United Nations, 1994)

The administrative system of ADR processes has become crucial in the present time, with many member states adopting ADR as a legal resort. Various organisations and institutions have been established to facilitate the administrative aspects of ADR methods, such as Arbitration Centres and Mediation Councils. There is also a trend towards institutionalizing ADR methods, with some countries delegating tasks to arbitral institutions instead of supreme or high courts. Scholars argue that addressing the representativeness issue should consider all its aspects, particularly in the context of environmental issues where changes affect future generations. Public acceptance and knowledge of ADR methods need to be enhanced through education, training, and active media campaigns to ensure that representativeness in settling environmental disputes through ADR mechanisms is maximized. (Alkhayer et. al., 2022)

7 Conclusion

While the nature of environmental conflicts is complex and intricate, various countries have successfully utilized arbitration, mediation, conciliation, and negotiation – the four primary types of ADR – for settling environmental disputes. Even in cases where ADR methods have not led to a final resolution, positive outcomes such as the alignment of viewpoints and a reduction in the scope of conflicts have been observed. Additionally, in more intricate conflicts, the adoption of ADR methods has revealed and addressed obstacles to reaching a settlement, such as a lack of trust between parties or the participation of numerous parties with inactive roles. Identifying the reasons for failure is considered a step toward success.

As a result, the implementation of ADR methods in environmental disputes has the potential to be successful, if not fully, at least partially. The primary challenge lies in the obstacles that impede the adoption of ADR mechanisms. Lack of acceptance, stemming from a lack of awareness and knowledge, stands out as a crucial obstacle. Considering that resolving environmental conflicts is integral to the environmental conservation approach – a foundational element of sustainable development – and contributes to accessing justice and reinforcing the rule of law, the use of ADR methods becomes indispensable. However, the issue extends beyond mere necessity; it should open avenues for enhancing existing ADR methods and innovating new ones, guided by the principle that constant change entails constant creation and innovation.



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Conclusion

The four authors in the previous section describe a wide variety of challenges that can be considered and negotiated using the guidelines of human rights and SDGs. Even though some of these guidelines are several decades old, they are still relevant today, but must also be examined and applied differently in the various contexts. The authors compare various guidelines, relate them to different problem complexes of the present day and present solution models. The most important conclusions are summarized below.

In her comparison, Christine Wetter comes to the conclusion that the 17 Sustainable Development Goals partially refine human rights principles but lack legally binding obligations, diminishing their effectiveness amid violations with global consequences. Despite this, no government seems willing to fully acknowledge responsibility for these transgressions, with conflicts such as wars exacerbating environmental degradation and societal well-being. Persistent injustices, like corporations depleting groundwater in impoverished regions or exploiting children in mines, challenge both human rights and SDG ideals. Addressing these injustices requires a societal shift in attitudes and behaviors, including initiating boycotts against harmful practices and political leaders enforcing stringent measures on major industries. Ultimately, a collective effort is necessary to prompt a reevaluation of global priorities, aligning with the principles of both the Declaration of Human Rights and the SDGs.

In summary, Jacob Mayer comes to three conclusions in his consideration of the responsibility of liberal democracies. Firstly, liberal democracies should not only set themselves the goal of their own preservation, but should also keep an eye on the global political climate and represent their values beyond their own borders, due to their own interests. Secondly, the strength of international value systems grows with the mass of people who credibly support them. Institutions and individu-

als therefore have a responsibility and cannot rely solely on the internal resilience of these systems. Finally, it is emphasized once again that an active commitment to human rights and SDGs is a significant part of their strength. Liberal democracies can be particularly active here and should make use of this opportunity.

Yannik Wagner closes his article with the following conclusions. The nexus between the Sustainable Development Goals, human rights, and the Catholic Church in America underscores the imperative for collective action towards a more inclusive and just healthcare system. As stewards of social justice and advocates for the marginalized, the Catholic Church still plays a pivotal role in achieving the SDGs and upholding human rights principles. By aligning its teachings and actions with the objectives of the SDGs, the Church holds the potential to contribute significantly to global efforts for sustainable development, instead of undermining them by outdated dogmas. Moving forward, fostering collaboration among diverse stakeholders, including governments, civil society, and the private sector, will be essential for realizing the transformative vision outlined by the SDGs and provide appropriate healthcare to everyone.

Pauline Nicolay concludes this chapter and her article with her observations as she recognizes the potential for success in implementing Alternative Dispute Resolution (ADR) methods in environmental conflicts exists, albeit not necessarily in its entirety, but at least to some extent. The primary challenge lies in overcoming the obstacles of acceptance which hinders the adoption of ADR mechanisms. Recognizing that resolving environmental conflicts is essential for environmental conservation. The importance goes beyond mere necessity; it should also serve as a catalyst for improving existing ADR methods and developing new ones. This process should be guided by the principle that continual change necessitates continual innovation and creation.

Bibliography and sources

- Alkhayer J., Gupta N. and Gupta C. M. (2022): *Role of ADR methods in environmental conflicts in the light of sustainable development*, IOP-Publishing, vo. 1084.
- Alper, B. A. (2022). *How Religion Intersects With Americans' Views on the Environment*. Pew Research Center. Retrieved from: file:///C:/Users/Yannick/Downloads/PF_2022.11.17_climate-religion_REPORT.pdf.
- Amnesty International (2023): *Amnesty International Report 2022/23*, Amnesty International Ltd.
- BMUV (n.d.): *The Aarhus Convention*. Retrieved from: www.bmuv.de/themen/umweltinformation/aarhus-konvention#:~:text=Das%20%22Übereinkommen%20über%20den%20Zugang,Europäische%20Union%20bei%20der%204.
- BMZ (n.d.): *The Global Goals for Sustainable Development*. Retrieved from: www.bmz.de/de/agenda-2030.
- Brody, D. J., Pratt, L. A., Houghes, J. P. (2018). *Prevalence of Depression Among Adults Aged 20 and Over: United States, 2013–2016*. U.S. Department of Health and Human Services. Retrieved from: www.cdc.gov/nchs/data/databriefs/db303.pdf.
- Brown, J. G. (1999) *Ethics in Environmental ADR: An Overview of Issues and Some Overarching Questions*, Valparaiso University Law Review, vo. 342 2000.
- Baurmann, M., Lahno, B. (Ed.) (2009) *Perspectives in Moral Science*. Frankfurt School Verlag.
- Bexell, M., Hickmann, T. & Schapper, A. (2023) *Strengthening the Sustainable Development Goals through integration with human rights*. Int Environ Agreements 23, 133–139. <https://doi.org/10.1007/s10784-023-09605-x>
- BVL (n.d.): *Minamata Convention on Mercury*. Retrieved from: www.bvl.bund.de/EN/Tasks/04_Plant_protection_products/03_Applicants/13_Le-galRegulations/03_InternationalAgreements/06_Minamata/ppp_intern_agreements_Mi-na-mata_node.html
- Chancel, L., Piketty, T., Saez, E., Zucman, G. et al. (2022): *World Inequality Report 2022*, World Inequality Lab wir2022.wid.world.
- Catholic Charities USA (2021). *2020 Annual Report*. Retrieved from: www.catholiccharitiesusa.org/resource/2020-annual-report/.
- Catholic Charities USA (2021). *2020 Services Overview*. Retrieved from: www.catholiccharitiesusa.org/wp-content/uploads/2021/03/Catholic-Charities-USA-2020-Services-Overview-Data.pdf.
- Cullinan, C. (2011). *Wild Law: A Manifesto for Earth Justice*. Chelsea Green Publishing.
- De la Hougue, C. (2021). *UN Experts speak out against the euthanasia of persons with disabilities*. European Center for Law & Justice. Retrieved from: www.eclj.org/euthanasia/un/lonu-seleve-contre-leuthanasie-des-personnes-handicapees.
- DIS (n.d.): *Alternative dispute resolution (ADR) procedure overview*. Available at: www.disarb.org/schiedsgerichtsbarkeit/verfahren-im-ueberblick.
- Dobson, A. (2003). *Citizenship and the environment*. New York: Oxford University Press.
- Dryzek, J. S. (2021). *The Politics of the Earth: Environmental Discourses*. Oxford University Press., 4th ed.
- Eckersley, R. (2004). *The Green State: Rethinking Democracy and Sovereignty*. MIT Press.
- Fox N., Alldred P. (2021) *Climate change, environmental justice and the unusual capacities of posthumans*. J Human Rights Environ 12:59–75. <https://doi.org/10.4337/jhre.2021.00.03>
- Goodwin, R. D. (2022). *Trends in U.S. Depression Prevalence From 2015 to 2020: The Widening Treatment Gap*. Am J Prev Med, 63(5): 726–733. Retrieved from: www.doi.org/10.1016/j.amepre.2022.05.014.
- Gouin, J. P., Kiecolt-Glaser, J. K. (2011). *The Impact of Psychological Stress on Wound Healing: Methods and Mechanisms*. Immunol Allergy Clin North Am, 31(1): 81–93. doi: 10.1016/j.iac.2010.09.010.
- Grimm, S. (2004): *Verpflichten Menschenrechte zur Demokratie? Über universelle Menschenrechte, politische Teilhabe und demokratische Herrschaftsordnungen*, Wissenschaftszentrum Berlin für Sozialforschung.
- Hamadeh, N., Van Rampaey, C., Metreau, E., Eapen, S.G. (2022): *New World Bank country classifications by income level: 2022–2023*, World Bank Blogs, Retrieved from: www.blogs.worldbank.org/opendata/new-world-bank-country-classifications-income-level-2022-2023.
- Heidenreich, F. (2023). *Nachhaltigkeit und Demokratie*. Eine politische Theorie. Suhrkamp Verlag

- Herlin-Karnell, E. (2023) *The Constitutional Concepts of Sustainability and Dignity*. Jus Cogens 5, 125–148. <https://doi.org/10.1007/s42439-023-00078-9>
- ICC (n.d.): *Arbitration*. Retrieved from: www.iccwbo.org/dispute-resolution/dispute-resolution-services/arbitration/.
- ICC (n.d.): *Mediation procedure according to ADR rules*. Retrieved from: www.iccgermany.de/schiedsgerichtsbarkeit/weitere-streit-belegungsinstrumente/mediationsverfahren-nach-adr-regeln/#:~:text=Ein%20Mediationsverfahren%20kann%20vorab%20vertraglich,zu%20einer%20Einigung%20führen%20wird.
- ICSID (n.d.): *Rules and Regulations*. Retrieved from: www.icsid.worldbank.org/rules-regulations/mediation/keydifferences-between-mediation-and-conciliation.
- John Paul II (1983). *Codex Iuris Canonici*. Code of Canon Law 1983, 158-159. Retrieved from: www.bibliotecanica.net/docsa/jbtcajx.pdf.
- John Paul II (1995). *Evangelium Vitae*, to the Bishops Priests and Deacons Men and Women religious lay Faithful and all People of Good Will on the Value and Inviolability of Human Life. Retrieved from: www.vatican.va/content/johnpaul-ii/en/encyclicals/documents/hf_jp-ii_enc_25031995_evangelium-vitae.html.
- Kamau, M., Chasek, P., & O'Connor, D. (2018). *Transforming multilateral diplomacy: The inside story of the sustainable development goals*. Routledge.
- Knauß, S. (2018). *Conceptualizing human-nature interrelations: The rights of nature in Ecuador and Bolivia*. Journal of Human Rights and the Environment 9(2): 100-122.
- Ko, S. C. (2014). *Religion as a Social Determinant of Public Health*, By Ellen Idler, Ed, Oxford University Press. Christian Journal for Global Health, 2(2), 76-77. [://doi.org/10.15566/cjgh.v2i2.88](https://doi.org/10.15566/cjgh.v2i2.88).
- Krok, D. (2015). *The Role of Meaning in Life Within the Relations of Religious Coping and Psychological Well-Being*. J Relig Health, 54: 2292–2308. DOI: 10.1007/s10943-014-9983-3.
- Letzte Generation (2024): *Unsere Forderungen*, Retrieved from: www.letztegeneration.org/forderungen/.
- Lohmann, J. (2004; updated 22.04.2020): *Geschichte der Menschenrechte*. Retrieved from: www.planet-wissen.de/geschichte/menschenrechte/geschichte_der_menschenrechte/index.html.
- Lorenz, L., Doherty, A., Casey, P. (2019). *The Role of Religion in Buffering the Impact of Stressful Life Events on Depressive Symptoms in Patients with Depressive Episodes or Adjustment Disorder*. International Journal of Environmental Research and Public Health, 16, 1238. doi:10.3390/ijerph16071238.
- Masci, D., Smith, G. A. (2018). *7 facts about American Catholics*. Pew Research Center. Retrieved from: www.pewresearch.org/shortreads/2018/10/10/7-facts-about-american-catholics/IV.
- Mukherjee, Sudeshna et al. (2013). *Risk of Miscarriage Among Black Women and White Women in a US Prospective Cohort Study*. American Journal of Epidemiology, 177(11): 1271-1278. DOI: 10.1093/aje/kws393.
- Nortey, J., Lipka, M. (2021). *Most Americans Who Go to Religious Services Say They Would Trust Their Clergy's Advice on COVID-19 Vaccines*. Pew Research Center. Retrieved from: file:///C:/Users/Yannick/Downloads/PF_10.15.21_covid_congregations.full_report.pdf.
- Official Journal of the European Union: *Directive 2013/11/EU of the European Parliament and of the Council of May 21st, 2013, on alternative dispute resolution for consumer disputes and amending Regulation (EC) No 2006/2004 and Directive 2009/22/EC*.
- OPM (n.d.): *Alternate Dispute Resolution Handbook*. Retrieved from: www.opm.gov/policy-data-oversight/employee-relations/employee-rights-appeals/alternative-dispute-resolution/handbook.pdf.
- Penan, H., Chen, A. (2019). *The Ethical & Religious Directives: What the 2018 Update Means for Catholic Hospital Mergers*. In National Health Law Program. Retrieved from: www.healthlaw.org/resource/the-ethical-religious-directives-what-the-2018-update-means-for-catholic-hospital-mergers/.
- Permanent Court of Arbitration (n.d.): *International Conciliation and Mediation at the PCA*. Retrieved from: www.pca-cpa.org/international-conciliation-and-mediation-at-the-pca/.

- Papada, E. et al. (2023): *Defiance in the Face of Autocratization*. Democracy Report 2023, University of Gothenburg: Varieties of Democracy Institute.
- Pettit, Ph. (ed.) (1997). *Republicanism: a theory of freedom and government*. New York: Oxford University Press.
- Philips, J. (2020): *Actualizing Human Rights - Global Inequality, Future People, and Motivation*, Routledge Studies in Human Rights, 1st ed.
- Puchalski, C. M. (2001). *The role of spirituality in health care*. Proc (Bayl Univ-Med Cent), 14(4): 352–357. doi: 10.1080/08998280.2001.11927788.
- Purvis, B., Mao, Y. & Robinson, D. (2019) *Three pillars of sustainability: in search of conceptual origins*. Sustain Sci 14: 681–695 (2019). <https://doi.org/10.1007/s11625-018-0627-5>
- Pufé I. (2014): *What is sustainability? Dimensions and Opportunities*. Retrieved from: www.bpb.de/shop/zeitschriften/apuz/188663/was-ist-nachhaltigkeit-dimensionen-und-chancen/.
- Pullella, P. (2022). *Pope backs COVID immunisation campaigns, warns of ideological misinformation*. Reuters. Retrieved from: www.reuters.com/world/europe/pope-backs-covid-immunisation-campaigns-warns-ideological-misinformation-2022-01-10/.
- Ritchie H., Rodés-Guirao L., Mathieu E., Gerber M., Ortiz-Ospina E., Hasell J. and Roser M. (2022): *Population Growth*. Retrieved from: www.ourworldindata.org/population-growth#research-writing.
- Roepke, A. M., Jayawickreme, E., Riffle, O. M. (2014). *Meaning and Health: A Systematic Review*. Applied Research Quality Life, 9: 1055–1079. DOI: 10.1007/s11482-013-9288-9.
- Rozier, M. (2014). *A Catholic Case for Public Health*. Catholic Health Association of the United States. Retrieved from: www.chausa.org/docs/default-source/hceusa/a-catholic-case-for-public-health.pdf?sfvrsn=2.
- Sachs, J. D., Lafortune, G., Fuller, G., Drumm, E. (2023): *Sustainable Development Report 2023 - Implementing the SDG Stimulus*, Dublin University Press.
- Schaefer, S. M. (2013). *Purpose in Life Predicts Better Emotional Recovery from Negative Stimuli*. PLOS ONE 8(11), 1-9. doi: 10.1371/journal.pone.0080329.
- Shamir Y. and Kutner R. (2003): *Alternative Dispute Resolution Approaches and their Application*, in: UNESCO PC-CP series, no. 7.
- Shepherd, Kira et al. (2018). *Bearing Faith: The Limits of Catholic Health Care for Women of Color*. Columbia Law School. Retrieved from: www.scholarship.law.columbia.edu/faculty_scholarship/3933/?utm_source=scholarship.law.columbia.edu%2Ffaculty_scholarship%2F3933&utm_medium=PDF&utm_campaign=PDFCoverPages.
- Solomon, T. (2020). *Bigger and Bigger, the Growth of catholic health systems*. In Community Catalyst. Retrieved from: www.communitycatalyst.org/resource/bigger-and-bigger-the-growth-of-catholic-health-systems/.
- Statista (2024): *Wie sehr vertrauen Sie der deutschen Regierung?*. Retrieved from: www.de.statista.com/statistik/daten/studie/153823/umfrage/allgemeines-vertrauen-in-die-deutsche-regierung/.
- Stone, D. (1972). *Should Trees Have Standing? Towards Legal Rights for Natural Objects*. Southern California Law Review 45: 450-501.
- Tharakan R. J. and Lahoti K. (2019): *Conquest of Sustainable Development through Reformative Mechanisms of ADR*, European Journal of Sustainable Development 8(5):254, pp. 254-261.
- The Economist Intelligence Unit (2023): *Democracy Index 2022 - Frontline democracy and the battle for Ukraine*.
- UNEP (2019): *Minamata Convention on Mercury*. Retrieved from: www.minamataconvention.org/sites/default/files/2021-06/Minamata-Convention-booklet-Sep2019-EN.pdf.
- UNEP (2016): *UNEP Implementing Principle 10 of the Rio Declaration*. Retrieved from: www.unep.org/news-and-stories/story/unep-implementing-principle-10-rio-declaration.
- United Nations (2024) *United Nations Brundtland Commission*. Retrieved from: www.un.org/en/academic-impact/sustainability.
- United Nations (n.d.): *The 17 Goals*. Retrieved from: www.sdgs.un.org/goals.

- United Nations (n.d.): *Transforming our world: the 2030 Agenda for Sustainable Development*. Retrieved from: www.sdgs.un.org/2030agenda.
- United Nations (o.J.): *Peace, dignity and equality on an healthy planet*, Universal Declaration of Human Rights, Retrieved from: www.un.org/en/about-us/universal-declaration-of-human-rights.
- United Nations (2022). *US abortion debate: Rights experts urge lawmakers to adhere to women's convention*. Retrieved from: www.news.un.org/en/story/2022/07/1121862.
- United Nations (2016). *Transforming our world: the 2030 Agenda for Sustainable Development*. Retrieved from: www.sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf.
- United Nations (2011): *Resolution adopted by the General Assembly, 65/283*. on Strengthening the role of mediation in the peaceful settlement of disputes, conflict prevention and resolution, A/RES/65/283, Distr.: General 28 July 2011.
- United Nations (2008). *The Right to Health*, Fact Sheet No. 31. Office of the United Nations High Commissioner for Human Rights. Retrieved from: www.ohchr.org/sites/default/files/Documents/Publications/Factsheet31.pdf.
- United Nations (1994): *UNCITRAL Model Law on International Commercial Arbitration*, in: United Nations publication Sales No. E.95.V.18.
- United Nations (1992): *Department of Economic and Social Affairs, Sustainable Development*. Retrieved from: www.sdgs.un.org/2030agenda.
- United Nations (1992): *Department of Economic and Social Affairs, Publications*. Retrieved from: www.sdgs.un.org/publications/agenda21.
- United Nations (1992): *United Nations Conference on Environment and Development*, Rio de Janeiro, Brazil, 3-14 June 1992. Retrieved from: www.un.org/en/conferences/environment/rio1992.
- United Nations (1979). *Convention on the Elimination of All Forms of Discrimination against Women*. Convention on the Elimination of All Forms of Discrimination against Women. Retrieved from: www.un.org.
- United Nations General Assembly, *New York City*. Retrieved from: www.ohchr.org/sites/default/files/cedaw.pdf.
- United Nations (1972): *Report of the UN Conference on the Human Environment-Stockholm 5-16 June 1972*. UN Library. Retrieved from: www.documents.un.org/doc/undoc/gen/nl7/300/05/pdf/nl730005.pdf?token=aYpaiOjXxYH75EggDw&fe=true.
- United Nations (1948). *Universal Declaration of Human Rights*. *United Nations General Assembly*, Paris. Retrieved from: www.un.org/sites/un2.un.org/files/2021/03/udhr.pdf.
- United Nations Human Right council (o.J.): *About HRC* Retrieved from: www.ohchr.org/en/hr-bodies/hrc/about-council.
- UN General Assembly (1998): *Declaration on the Right and Responsibility of Individuals, Groups and Organs of Society to Promote and Protect Universally Recognized Human Rights and Fundamental Freedoms*, Office of the High Commissioner for Human Rights. Retrieved from: www.ohchr.org/en/instruments-mechanisms/instruments/declaration-right-and-responsibility-individuals-groups-and.
- UNICEF (2022): *Climate Justice Roundtable - Recap and Reflections - An online discussion with activists and experts*, United Nations Children's Fund. Retrieved from: www.unicef.org/globalinsight/media/2866/file.
- United States Conference of Catholic Bishops, Washington, DC (2018). *Ethical and Religious Directives for Catholic Health Care Services*, Sixth Edition. Retrieved from: www.usccb.org/resources/ethical-and-religious-directives-catholic-healthcare-services.
- Valdés, E.G. (2009) *Dignity, Human Rights, and Democracy*. Baumann, M., Lahno, B. (2009) (Ed.) Perspectives in Moral Science: 253-265. Frankfurt School Verlag.
- VanderWeele, T. J., Koenig, H. G. (2017). *A Course on Religion and Public Health at Harvard*. American Journal of Public Health, 107(1), 47-49. doi: 10.2105/AJPH.2016.303501.
- VanDyke, A. M., Schriver, F. R. (2021). *Applying Medical Ethics in Catholic Charities*. *Catholic Charities USA*. Retrieved from: www.catholiccharitiesusa.org/wp-content/uploads/2021/10/Applying-Medical-Ethics-in-Catholic-Charities.pdf.
- V-Dem (2023): *The V-Dem Dataset*, www.v-dem.net/data/the-v-dem-dataset/, quoted from Our World in Data (2023): *Human rights index*. Retrieved from: www.ourworldindata.org/grapher/human-rights-index-vdem?tab=table&country=-RUS.

Watkins, D. (2021). *Pope Francis urges people to get vaccinated against Covid-19*. Vatican News. Retrieved from: www.vaticannews.va/en/pope/news/2021-08/pope-francis-appeal-covid-19-vaccines-act-of-love.html.

Whitehead, B. R., Bergeman, C. S. (2020). *Daily Religious Coping Buffers the Stress-Affect Relationship and Benefits Over all Metabolic Health in Older Adults*. *Psycholog Relig Spiritual*, 12(4), 393–399. doi: 10.1037/rel000025.

WIPO (n.d.): *What is Arbitration?* Retrieved from: www.wipo.int/amc/en/arbitration/what-is-arb.html.

WIPO (n.d.): *What is Mediation?* Retrieved from: www.wipo.int/amc/en/mediation/what-mediation.html.



Case study Rights of Nature

Ecology and the protection of fundamental rights: status quo and development potential in the light of the precautionary principle

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1 Introduction

Already more than 50 years ago, against the backdrop of the "earth science" findings of the time, voices could be heard in the legal literature expressing concern about the planet's carrying capacity, calling for consistent political rethinking and action and explicitly questioning consumer behavior and the ongoing pursuit of economic growth (Rehbinder, 1970). The realization that the limits of environmental resources must be respected, and that growth must be shaped effectively

within this framework has therefore been omnipresent not only since the "Our Common Future" report by the "World Commission on Environment and Development", or "Brundtland Commission" for short, in 1987 (United Nations General Assembly, 1987). Nevertheless, the current planetary status quo shows that the era of environmentally friendly economic development has by no means been effectively ushered in since then; on the contrary, implementation deficits or a lack of effectiveness of environmental protection measures against the excessive use of ecological resources are to be deplored. The demand for an ecological transformation of society is one of the most urgent on the political agenda and continues then as now, albeit partly with new terminology, at the level of jurisprudence: Currently, it is discussions about intertemporal freedom rights, nature's own rights and the greening of law that dominate the picture. However, the demand for ecologically oriented protection of fundamental rights is not new: the idea of protecting nature from excessive human behavior - also with a view to the generations of tomorrow and their chances of realizing a life in freedom in the future - is reflected not least in the precautionary principle, which is internationally

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recognized as a legal principle. Its ecological potential will be briefly explored below, culminating in an overview of constitutional tendencies towards an ecologically oriented protection of fundamental rights from a German perspective. This overview at the same time serves as an introduction for selected legal, ethical and social aspects of case studies in Latin America done by students in the context of a Human Rights interdisciplinary seminar in Wintersemester 2023/2024.

2 The precautionary principle as a corrective with potential in ecological contexts

"Better safe than sorry" - this approach, which has been much discussed at European and international level, has played an explicit role as a guiding principle in global environmental and climate policy since the 1970s and can be found as the "precautionary principle" both in relevant declarations and framework conventions of the United Nations (UNFCCC, 1992; Rio Declaration, 1992) and at European level in the Treaty of Maastricht in Art. 191 TFEU, where it is linked to sustainability via the integration clause in Art. 11 TFEU. In Germany, the precautionary principle has also been emphasized as a guiding principle of environmental policy since the 1970s and has been continuously substantiated in environmental reports; as a normative requirement for dealing with ecological impact limits, it is intrinsic to the state protection objective of Art. 20a GG or substantiates it and can be found in numerous provisions of German environmental law (Calliess, 2001; Calliess, 2022a).

In this way, the precautionary principle transports the findings of earth system science on planetary boundaries into law as a normative component and can contribute to ensuring an "ecological subsistence minimum" recognized under constitutional law by aiming to avoid critical burdens and tipping points and not to exhaust ecological limits (Calliess, 2021a, p. 19 et seq.). Applied in consistent and transparent interaction with the relevant sciences, it is thus able to make a contribution to approaching the "equality of the starting point as an opportunity to realize freedom" in general and goes beyond the formula of reconciling the freedom of one person with the freedom of another by

including the freedom-related question of realization - in our context also for future generations or the "expected number of inhabitants" (Böckenförde, 1991 esp. p. 266, 270 et seq.; Calliess, 2021b, p. 329).

On closer inspection, the precautionary principle and its national and international formulation give rise to several questions of both a legal and practical nature, including, for example, the scope of its content, the resulting obligations and limits of action for the responsible actors and the interaction with the principle of proportionality.

The potential of the precautionary principle to give full weight to ecological interests within the framework of a fair balancing of interests seems immense, but this "fair" framework also proves to be its biggest stumbling block. This is because traditionally, except in the case of mandatory legal requirements, no interest is to be given preference; at best, a planning *optimization requirement* can be derived from Article 20a of the Basic Law, according to which the natural foundations of life are to be protected as well as it is legally and factually possible without making the realization of other public tasks impossible (Murswiek, 1997). However, environmental impairment can regularly be justified under certain circumstances with another conflicting objective. This is probably not least because the precautionary principle always involves a certain degree of uncertainty in terms of prognosis.

At the same time, however, precisely this uncertainty component inherent in the principle can prove to be its strength if it is brought to bear in a future-oriented manner in favor of the natural foundations of life as the Federal Constitutional Court did in its much-noticed 2021 climate decision. The court refers to the special duties of care arising from the state objective of Art. 20a of the Basic Law by explicitly pointing out that, despite existing scientific uncertainty about environmentally relevant causal relationships, the possibility of serious or irreversible adverse effects must be considered if there is reliable evidence (BVerfGE, 2021, para. 229). The decision of the Federal Constitutional Court manifests the dependence of law on other sciences - in this case climate or earth science - in the sense of a structural link in order to constitute the legal decision in the first place.

Article 20a of the Basic Law opens literally door for science into the law; in this sense, the BVerfG states: "Article 20a of the Basic Law imposes a permanent duty on the legislature to adapt environmental law to the latest developments and findings in science (BVerfGE, 2021, para 212)."

3 German tendencies towards an ecologically oriented protection of Human Rights

The reception of the precautionary principle in German legislation and its development in literature and case law are exemplary indications that the lamentably hesitant implementation of environmental and climate protection and the failure to fully develop the steering potential of legal regulations in the last quarter of the 20th century are not fundamentally due to a lack of positive legal regulation or even legislative awareness.

The latter is hardly conceivable in view of the recurring political calls since the 1970s for positive legal concepts to strengthen environmental protection under constitutional law, with reference to the increasingly obvious ecological damage and enforcement deficits. On the background of political and legal rejection of a fundamental right to environmental protection (Calliess, 2021b; Calliess, 2022b Art. 20a, para. 10-18; see Wolf, 1984) - the Federal Administrative Court explicitly stated in 1977: "Under federal constitutional law, there is no 'fundamental environmental right' that provides more extensive protection under subjective law than that provided by Basic Law Art. 2 et seq. in favor of specific protected goods." (BVerwGE, 1977) - efforts at least led to the introduction of the state objective of environmental protection in Art. 20a of the Basic Law in 1994 (Federal Law Gazette, 1994).

The discussion about a "fundamental ecological right" or a "fundamental right to environmental protection" picked up speed again in 2021 with Ferdinand von Schirach's proposal to include a fundamental right to environmental protection in the UN Charter of Fundamental Rights (agreeing Klinger, 2021; critically referring to Callies, 2021b; also Kersten, 2022; critical Wegener, 2022). In view of the legal-dogmatic difficulties of such a fundamental right, the proposal has been received in the academic literature as a "sympathetic and justified climate policy plea", but at the same time, similar to

a "human right to healthy climate", which is being discussed in the context of climate lawsuits, it gives rise to adjustments (Calliess, 2021, p. 323). All in all, such impulses should in any case be beneficial to the further discussion on the ecological development of the law.

Regarding the lack of determinability of a fundamental right to the environment, Calliess (2021) points out that the fundamental right to an ecological minimum subsistence level can be used here, which, derived from Art. 1 para. 1 in conjunction with Art. 2 para. 2 and Art. 20a GG, can be interpreted as being aimed at preserving a viable and liveable environment (BVerfGE, 2021, para. 113-115; critical Calliess, 2021b). This would result in a judicially controllable mandate to act, which - in line with the precautionary principle - obliges the responsible parties to develop an effective and long-term protection concept, among other things (Calliess, 2021).

In favor of a substantively effective fundamental right to the environment, Callies explains, with recourse to the function of fundamental rights as duties to protect, how a substantively effective fundamental right to environmental protection can be constructed as an environmentally protective partial guarantee of individual fundamental rights such as life, health and property. In the context of environmental impairments, this focuses in particular on the right to life and physical integrity under Article 2 (2) sentence 2 of the Basic Law and once again draws a link to the precautionary principle. This is because effective health protection as a duty of the state under Art. 2 para. 2 sentence 1 includes not only current impairments, but also preventive health care (Calliess, 2021b; with reference to BVerfG, 2009). Calliess (2021b, p. 331) emphasizes the idea of a procedural environmental law in view of the difficulties of a substantively conclusive determination of a fundamental right to environmental protection and with a view to the impetus of international and European law: "Everyone has the right to a clean and healthy environment, as well as its preservation and protection. This is guaranteed by the right to information, participation in administrative proceedings and effective access to justice."

Kersten's (2022) recent proposal for an ecological German Basic Law, which should be cosi-

Turning away from the decades-long primacy of the pursuit of material prosperity is long overdue and a natural resource- and risk-based lifestyle change in line with the precautionary principle is urgent.

dered in the context of the international debate on the rights of nature, shows that there is still room for mankind to move towards more ecology in law, starting at the constitutional level. The natural state of the Anthropocene, into which humans have manoeuvred themselves through their ecologically irresponsible actions, requires a social contract to be concluded with nature and its rights to be recognized; a challenge that he sees as similar to that of declaring "capital" to be legal persons, which is therefore acceptable. Kersten (2022, p. 52) consistently argues for an ecological constitutional order that overcomes the distinction between anthropocentric and ecocentric nature conservation and provides "rules, concepts and institutions for the Anthropocene". He drafts such an order on the basis of the preamble, which has been expanded to include the principle of ecological responsibility and explicitly recognizes mankind's responsibility for nature as a task for the future, thus creating a powerful example of an ecological transformation of law at the highest national level (Kersten, 2022, p. 63 et seqq.).

Finally, in the context of the national discussion on improving the legal protection of natural resources, German legal literature also includes the demand for nature's own rights, which emerged on a global level in the 1970s (see Wolf, 2022; Gutmann, 2019; Mührel, 2022). The need for nature to be granted subjective rights is understood from a holistic naturalistic perspective in view of the natural interconnectedness of humans and nature and is discussed internationally in some societies at a political level with recourse to indigenous ideas and cosmologies of an animated nature,

and in some cases institutionalized at a legal level. Prominent examples with an impact that have been discussed internationally include the New Zealand Whanganui River, the Colombian Río Atrato and, most recently, the Mar Menor in Spain or the "Pacha Mama", which is revered by indigenous cultures in South America and can probably be understood with various nuances as an expression of a holistic cosmology (Hsiao, 2022; Doran and Killean, 2022). The latter is legally enshrined at the highest level in the Ecuadorian constitution: the existential significance of the "Pacha Mama" is already stated in the preamble and humans are named as part of it; in Art. 71, the "Pacha Mama", again vividly and processually described as the source of life, is ascribed a legal status that goes hand in hand with the right of everyone to claim this right: "La naturaleza o Pacha Mama, donde se reproduce y realiza la vida, tiene derecho a que se respete integralmente su existencia y el mantenimiento y regeneración de sus ciclos vitales, estructura, funciones y procesos evolutivos. Toda persona, comunidad, pueblo o nacionalidad podrá exigir a la autoridad pública el cumplimiento de los derechos de la naturaleza."

While it may be possible to understand such a development as an expression of anti-colonial cultural tradition and as a response to modern industrial societies and their arrogant treatment of nature, the question is rightly raised as to how such an ecocentric or biocentric counter-image can be integrated into legal systems that are traditionally based on an anthropocentric understanding of nature without causing distortions that could ultimately impair the coherence of these humanistic systems (Wolf, 2022; Mührel, 2022). At this point, it will be necessary to reflect on a "certain cultural relativism" or the "cultural underpinning of every legal system", which, although not fundamentally opposed to a normative consensus of the global community, nevertheless calls for "interdisciplinary research into the genesis and implementation of norms" (see Jung, 2009). If the phenomenon of "nature as a legal subject" is to be successfully adopted, then only on the basis of the assumption that law is also a cultural phenomenon (Jung, 2017, p. 1 et seqq.; Seelmann, 2007, p. 121 et seqq.) and on the basis of careful comparative law, taking into account cultural circumstances - without re-

sorting to an excessive cultural comparison-, state structures, policies, institutions and sources of law (Schmidt-Aßmann, 2018; Kraski, Prityi and Münster, 2019). Nevertheless, it must be admitted that such an approach certainly has its appeal and that initiatives in the direction of ecocentrism, such as those being promoted in Germany, are worthy of note and should stimulate reflection and further discussion (Ewering and Gutmann, 2021). From the perspective of modern industrial societies and perhaps in general, it remains true that the core issue is the control of human behavior for the purpose of preserving its natural conditions of existence. The above-mentioned draft of an ecological constitution is an approach for such an ecological precaution, with a view to preserving opportunities for freedom in the future and the possibility of making the entire system more ecological.

Although since the introduction of Article 20a of the Basic Law, the mandate to the legislator to enact suitable environmental protection regulations that safeguard the civil liberties of future generations in line with the precautionary principle has been accentuated under constitutional law, it was for a long time partly considered ineffective and lacking in control (Calliess, 2022b, para. 139; Kersten, 2022). However, it was not until the Federal Constitutional Court's climate protection ruling of 29.04.2021 (BVerfGE, 2021) that the effectiveness of the state objective in conjunction with the principle of proportionality "like a hitherto closed flower" (Schlacke, 2021, p. 915) was developed in a precautionary manner in the sense of the freedom-related question of realization: "Under certain conditions, the Basic Law obliges to secure freedom protected by fundamental rights over time and to distribute opportunities for freedom proportionately over the generations (BVerfGE, 2021, para. 173)." The Federal Constitutional Court fully applies the precautionary principle in conjunction with Article 20a of the Basic Law and the rights to freedom by recognizing that cumulative, uncertain and long-term impairments of fundamental rights are also conceivable and that, in the worst case, namely in the event of serious, irreversible damage, fundamental rights protection could be rendered ineffective in the future (Ekardt, Heß and Wulf, 2021). The court thus addresses the factual intertemporal connection between environmental earth systems

and their significance for the individual and points to the need for fair intertemporal allocation (Siebert, 1986). "The protection mandate of Article 20a of the Basic Law includes the need to treat the natural foundations of life with such care and to leave them to posterity in such a condition that future generations cannot continue to preserve them only at the price of radical abstinence (BVerfGE, 2021, para. 193)." This finding is implemented in terms of legal doctrine at the level of intervention in the light of Article 20a of the Basic Law by linking the defensive and protective duty dimensions of civil liberties and the explicit addition of the intertemporal component and thus overcoming the presentness criterion in conjunction with the standards of evidence control; without, of course, fundamentally affecting the fundamental right dogma of the duty to protect (BVerfGE, 2021, para. 169, 186 et seq.; see Schlacke, 2021). In concrete terms, the Federal Constitutional Court succeeds with the construction of an "intervention-like pre-effect" (BVerfGE, 2021, para. 183) in moving the objective-law intergenerational protection obligations of Article 20a of the Basic Law into a subjective-law dimension and creating a new future-oriented fundamental right to intertemporal freedom protection, which has met with a broad positive response in the literature (Schlacke, 2021; Kersten, 2022; Faßbender, 2021; Ekardt, Heß and Wulf, 2021; Britz, 2022; Breuer, 2022; Hofmann, 2021). Kersten (2022, pp. 35-39) summarizes this in the fundamental rights formula: "Art. 2 para. 1 GG (as a subjective dynamization factor) + Art. 20a GG (as na objective dynamization factor) = intertemporal safeguarding of freedom." It remains to be seen how the new dogmatic figure will develop and whether it should be transferable to other areas (Franzius, 2022; Schlacke, 2021; Uechtritz and Rutloff, 2022).

4 Conclusion

It is to be expected that government decisions in the ecological context will in future more and more likely also imply the necessity of renunciation and thus the restriction of fundamental freedoms and the status quo which has become taken for granted in western industrial societies; a consequence that will by no means simply reflect a social consensus. Turning away from the decades-long primacy of the pursuit of material prosperity

is long overdue and a natural resource- and risk-based lifestyle change in line with the precautionary principle is appropriate. Such a step cannot be expected through legal control alone, but must also be based on cooperative, consensual, informational processes involving society. A law that is consistently shaped human rights orientated could contribute to changing the awareness of society if the law becomes the living expression of an ecologically and socially fair constituted state. An assumption that could be made for any nation, which leads to the announced selected aspects from the student's international case studies.



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Endnote

For more on the understanding, see Gutman (2019), p. 613 et seq.; Bachmann and Navarro (2021), p. 357 et seq.; O'Bryan (2022), p. 769 et seq.; Epstein S./Dahlén, M./Envist, V. and Boyer E. (2022), Liberalism and Rights of Nature: A Comparative Legal and Historical Perspective, Law, Culture and the Humanities; Kraski, Prityi and Münster (2019), p. 127 et seq.; for Europe see European Parliament Study requested by the JURI committee (2021) Can Nature get it right? A Study on Rights of Nature in the European Context, PE 689.328.

Introduction

In order to protect the pristine and invaluable nature, a tool has emerged in recent years - the granting of rights to nature itself. To ensure the protection of not only the living species within a river, but also of the river itself, some may give it the status of a legal entity, with the right to legal representation and with interests that must be taken into account. This chapter discusses the underlying relationship between humans and nature, and compares existing laws from different countries to show ways to combat the exploitation of nature.

The first part of this paper portrays our current perspective on nature, how it developed and what distinguishes it from animism. Our perception of nature will be debunked, and strong advocacy will be made for a more sustainable human-nature relationship. Select nations have taken unprecedented steps to acknowledge nature as a subject with inherent rights, transcending the conventional view of the environment as mere property. This term paper dives into the evolving landscape of environmental jurisprudence by exploring the inclusion of nature's rights in the constitutional frameworks of Ecuador, Bolivia, New Zealand, Colombia and India. Through a comparative analysis of these distinct cases, we unravel the diverse approaches these countries have adopted to recognize and protect the rights of nature, examining the legal, cultural, and ecological implications of this transformative concept. From the constitutional enshrinement of Pachamama's rights in Ecuador to the legal personification of the Whanganui River in New Zealand, this paper sheds light on the global movement for the rights of nature and its potential impact on environmental conservation and societal harmony. Over the last years the discussion about rights for nature have also increased in Germany. The first part gives an overview about the current status of natural rights all over the world.

The second part deals with the rights of nature in Germany and how these have developed in recent years, for example through the citizens' initiative in Bavaria, which addresses the rights of nature and makes them the subject of a referendum.

The third part deals with the decision of the Federal Constitutional Court. This decision in March 2021 on the issue of climate protection marked a significant milestone in the context of the global climate crisis and finally the class action lawsuit.

Decoding the Environmental Crisis: A Historical Analysis of Human- Nature Relationships

Author: Johannes Hagemann

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1 Introduction

When we want to understand why the laws of nature and nature itself are currently in such bad condition, we need to look at our way of seeing the world. When we want to stop the rapid deforestation, climate change, mass extinction, and other catastrophic impacts we have on our environment, we need to figure out at what time and why they started. There are fundamental differences between an anthropocentric worldview, where humans are above all other species, and an animist worldview, where humans are a part of nature. Due to people acting accordingly to their perception of the world, we need to understand why these perceptions differentiate so much and why people from the imperial core, respectively, the exploiting countries, think in a hierarchical pattern.

Our disconnectedness from nature has reached a shocking extent. People living in big cities see nothing but concrete and cars; the plants they have in their homes are made out of plastic; and

the only time they see animals is when they go to a zoo, where they are crammed in little enclosures and alienated from their natural habitat. Children growing up these days spend more time watching ads on TV or social media than they spend in nature. No wonder that many people know more brands than tree species, despite the fact that just one of those two keeps them alive. It is high time to question this development and to ask ourselves how we ended up here.

Interestingly, there are still elements of a human-nature relationship visible in our modern capitalist society. Some people see their dog or cat as part of the family and talk to them; others care for plants as well as they do for their own children. And even in movies, a world is a portrait where the birds talk to the people and plants are alive. Therefore, the idea of nature being alive rather than just some material resource still prevails in our subconscious and in our fantasy to this day.

The first part of this paper portrays our current

perspective on nature and how it developed. From Plato's Allegory of the Cave to the scientific revolution initiated by Francis Bacon and the dualism founded by Descartes, many theories influenced our perception of the world. The term Anthropocene is widespread, but it is rarely discussed or narrowed down when used. It will be discussed and elaborated on how the rise of capitalism is related to the accelerating exploitation of nature.

The second part is about defining animism, the initial view of humans as a part of nature, which is still prevalent in indigenous culture. Cartesian dualism will be challenged, and other philosophical theories will be examined. The concept and theory of ecological feminism are going to be introduced, and the underlying analyses will be conducted in the context of animism. Our perception of nature will be debunked, and strong advocacy will be made for a more sustainable human-nature relationship.

2 Historical development of the Anthropocene in Europe

The term Anthropocene was first introduced by Paul Crutzen and Eugene Stormer in 2000. Originally, it just referred to the geological era but it was quickly adapted by other scientists to describe the era, in which humans have a significant impact on the whole planet. Per definition, not necessarily negative, the word is nowadays mainly used to describe the different areas of destruction humans have on planet Earth, for example, climate change, ocean acidification, radioactive waste, or soil erosion. The term is highly discussed because there is no clear start to this era or a distinct indicator of what makes it special. Some argue that the start of the industrial revolution marks the beginning; others point to the importance of globalization in the form of colonization. Fundamental for this new era, however it is defined, is a new way of thinking in which humans are not a part of the environment but superior. The following section will examine some theories, why and how this way of thinking emerged, and who benefited from this narrative (Neilson, 2024).

2.1 Plato and the Allegory of the Cave

The foundation for the anthropocentric worldview was laid by the Greek philosopher Plato. He was the

first to describe life as dualism and drew a distinct line between the earthly realm and the transcendental realm. In his famous Allegory of the Cave, he described people only seeing the shadows of reality. They are having fake experiences that feel real but are only shadows of reality. One of the prisoners breaks out, leaves the cave, and figures out what is causing these shadows. When he comes back to the others, he cannot see the objects pictured by the shadows because he has gained the knowledge that these are nothing but shadows and sees them just as that. The other people in the cave might, therefore, think he lost rather than gained knowledge. According to Plato, we can just access the intellectual realm through reason. Our initial experience is only in an earthly, embodied manner, so with the help of our intellect, we can grasp *the idea in itself* (D'Olimpio 2023).

2.2 Francis Bacon

Plato's ideas, especially the one of the world being split in two, were adopted by the transcendental philosophies during the Enlightenment. They built on the idea that intellect is the core essence of knowledge. Therefore, humans are given a special place above the rest of creation. The first one to call for this dualism was the English philosopher Francis Bacon. He was a significant contributor to the 'scientific method' that laid the foundation for empiricism. While describing science as a way of observing events in nature, he called for science to be used to enslave nature. The idea of a living world seemed absurd to him because, for him, it was just a chaotic mass that needed to be sorted. He went as far as saying that science should torture nature to reveal its secrets. For him, science is more than a tool to observe; it is a weapon to fight nature and subdue it (Hickel, 2020; Scalercio, 2018).

His ideas might sound brutal, but their consequences were way more devastating. Not only did he, as Attorney General under King James I, use torture against peasants and work to legitimize this practice, he also had a big influence on how the colonialists conducted themselves. The human domination of nature and the sham to sort out this chaos that is present in every part of the world were two of the most important reasons why the colonization of every part of the world was jus-

tifiable. In the understanding of nature that was prevailing in the 16th century, other human beings were part of this wild nature, which had to be tamed as well. The term 'uncivilized', which is shockingly still used sometimes, was omnipresent at the time of Bacon and described the characteristics of people living in harmony with nature. Therefore, the conquering of new lands and within the humans who lived on them, was not seen as the brutal subjection as we recognize it today, but as a favor and doing good (Hickel, 2020; Scalercio, 2018).

Despite the fact that he was calling for this aggressive treatment and exploitation of nature, he did not establish a philosophical concept to justify this proposal for a new behavior. There are some indications of Bacon being the pioneer of the disenchantment of nature, but the main part of this theory was characterized by René Descartes (Hickel, 2020).

2.3 René Descartes

René Descartes reflected back on the idea of Plato and broadened the concept of gaining knowledge just by intellect. In this point, he was contrary to Bacon, for whom experimenting and observing the scientific method of gaining knowledge was. But what they shared was the vision of nature as a dead matter that has no influence on humans or the way they behave. According to Descartes, humans are the only beings with a soul, which has a special connection with God. Every other creature was like a machine without thoughts or intentions. They are just a mass of flesh with some instincts, and in his opinion, they do not even have feelings. He tried to prove this point by cruelly dissecting living animals. After torturing them and cutting them in pieces, he insisted that what seemed like pain and sentience was only the appearance of it. The animals are nothing but flesh, muscles, and nerves, and they just act accordingly. What came to be known as mechanical philosophy was nothing else than objectifying animals and even the human body. He split the human being into two parts. The body is just machinery that has to be controlled by the soul, which is what actually makes us humane. Therefore, the body was pictured as weak and had to subdue the brain. If people were poor, they had to be lazy, and the reason for

According to Descartes, humans are the only beings with a soul, which has a special connection with God. Every other creature was like a machine without thoughts or intentions. They are just a mass of flesh with some instincts, and in his opinion, they do not even have feelings.

this was the deficiency of willpower to make the body obey the brain. Normal human instincts like sleeping and hunger were portrayed as unnatural and signs of weakness (Harrison, 1992).

According to Jason Hickel, who analyzed the destruction of the human-nature relationship and the role Descartes had in it, this philosophy was imbibed by the early capitalists. They propagated his philosophy because it allowed them to exploit people and nature as much as they wanted. The work was stripped of its meaning and mastery and became a purpose in itself. Not the actual manufacturing of things was the achievement, but the working and productivity by themselves. Land became property, and living ecosystems became resources. This gave the landowners permission to exploit and destroy whatever they liked. The role of Descartes in the development of capitalism should not be underestimated and played right in the hands of landowners. The church also had an interest in the creation of a dualist worldview because it legitimized humans as the image of God to rule over every other creature. The spiritual realm, which is not observable, was co-aligned with the existence of God and justified the power of the church in this new epoch (Hickel, 2020).

Carolyn Merchant, an environmental historian and ecofeminist, also concluded that the shift from an animistic worldview to a mechanistic worldview significantly accelerated the exploitation of nature. She analyzed the parallels between the man-women hierarchy and the human-nature

hierarchy. Before the scientific revolution, people spoke about 'mother nature' as the origin of all life. Tellingly, Bacon speaks of nature as female and calls for putting her under constraint, so she takes orders from men. In addition, many jobs previously done by women changed into meaningless jobs under capitalism (Merchant, 1980). Her work was the first philosophical analysis of history from an ecofeminist perspective. Therefore, she is seen as a mentor by many, and numerous case studies and research papers are based on her work (Nichols, 2021).

2.4 Cheap nature

For many historians, the roots of the problem are not the existence of the human species. The earliest traces of mankind date back 40,000 years, around the time when the first homo sapiens came to Europe. And for all of history, humans have had impacts on nature, but most historians argue that the Anthropocene started between the 17th and 19th centuries (Wilford, 2002). Due to the emergence of capitalism at this time, some argue that we live in a Capitalocene (Moore, 2016).

In a capitalist system, the main goal is making profit rather than providing a decent life for the people, which has been the main goal before. Capitalism is based on internalizing resources and paying as little as possible for their usage or exploitation. The damages done to the environment get externalized, so the polluter does not have to

The entire world is full of living persons, and no matter if they are human or non-human, they deserve respect. Other beings like animals, plants, or rivers influence us as much as we influence them, so we are all in a relationship with them. Therefore, animism is more naturalist and human-nature-based than metaphysical.

pay for them. Creating value in a capitalist system is highly dependent on appropriating raw materials and putting a price tag on them. The value that ecosystem services, such as rivers providing fish, produce, is not paid for, at least not in the right amount. So-called profit is nothing else but surplus value squeezed out of nature or the workers. When companies want to increase their profit, they have to either earn more income or reduce cost. In reality, this cost reduction often means paying workers less or damaging ecosystems beyond the point where they can repair themselves (Think That Through, 2022).

Moore calls this a capitalized separation between society and nature, but as a matter of fact, all are one and of the same nature. This separation is just an ideological one, because even the people arguing for it cannot draw a clear line between what is nature and what is society. The economy can only exist and thrive in a healthy ecological environment. As said before, at the beginning of capitalism and colonialism, most of the indigenous people were seen as part of nature and could be internalized. In Moore's opinion, economics is just a way to differentiate which part is given a monetary value and which part is not. The soil and the plants are free, as are the slaves, so in theory, the owner makes money from nothing. When the soil loses fertility, it has to be fertilized to get roughly the same amount of crops over time. In this case, the external cost has become an internal one because the owner of the plantation has to pay money to maintain it. Due to this new cost, it would be cheaper to buy new lands, or ideally get them for free, so the owner can just use the fertile soil. Therefore, the profits of capitalism are nothing but the damage done to the environment or humans (Moore, 2016).

3 Animism as an ontology

3.1 Definition

The English anthropologist Edward Burnett Tylor first introduced the term animism and defined it as the characteristic religious belief in spirits. For him, animism was the first and most basic religion because animists think everything is inhabited by souls. In his Handbook about Contemporary Animism, Graham Harvey questions this definition as

too vague. He also criticizes the prejudice of the egocentric view that 'they believe but we know' because it hinders understanding the animistic worldview. For a deep comprehension of animism, it is necessary to be open-minded and to respect their way of seeing the universe as much as any other religion (Harvey, 2015).

The most widely used application of animism is to describe humans participation in a multi-species community. The entire world is full of living persons, and no matter if they are human or non-human, they deserve respect. Other beings like animals, plants, or rivers influence us as much as we influence them, so we are all in a relationship with them. Therefore, animism is more naturalist and human-nature-based than metaphysical. In some cases, animism is also used to characterize religions, the interrelation of all matter and all being itself, or to describe human-animal relationships, e.g., if someone sees their pet as a part of the family. All these definitions and meanings have the same core, which is trying to understand what activates and motivates the way lives are lived (Harvey, 2015).

3.2 Closeness in Human-Nature relationships

In his book on Ontology, Neil H. Kessler argues that the ecological catastrophes happening in the Anthropocene are just the symptoms of an underlying root problem – the faulty relationship humans have with other beings. He criticizes concepts like planetary boundaries, which aim to limit the destruction of nature to a 'save' extent, because they still imply that humans can pollute the planet. Sustainable development does not mean less destruction, but non at all. Every tree cut down and every plastic bottle thrown in the ocean indicates how we treat nature and the beings around us. Due to ontology being the study of the nature or essence of being or existence, Kessler looks at the small and big scale of human-nature relationships.

A good human-nature relationship does not guarantee the end of destruction because humans are sometimes insidious to each other. But when this mistreatment happens, it can never be moral or justified, so that should apply to the destruction of nature as well. This could fuel an improvement in treating the earth, not just to survive but to be

respectful. Due to this possible improvement, the author takes a deeper look into the history of animism and questions the reason why many people find animism strange. Prejudices and assumptions about more-than-humans not having the capacity to form a relationship can negatively influence the research about the human-nature relationship; therefore, the author tries to be as unbiased as possible. The first problem he encounters before writing this philosophical paper is the term 'nature' in itself. By referring to nature, many humans mean every non-human being at once. This plural distorts the fact that these are many individual beings and pigeonholes them. Due to the widespread use of the word 'nature' in this context, it is impractical for him to refrain from this word. Especially when analyzing the creation of human-nature dualism, it would be rather confusing to use an unbiased term that includes humans and everything that we call 'nature'.

When the way of finding a definition for the human-nature relationship is just done through already inherent knowledge, in isolation, and without feeling or believing, then this definition is not a definition of a relationship but of a self-conception. Due to this method of defining the relationship already being anthropocentric, it is impossible to get a balanced outcome. The only way a river becomes alive is by humans treating it as if it were. If they think it is dead, it will forever appear dead to them, no matter what they examine. This is similar to other religions because just if someone, e.g., speaks prayers, they can be answered, and their belief will be reinforced. To change the worldview of a dead world that many people nowadays have, the author thinks correcting mistakes in the worldview is more efficient than offering an alternative worldview. Many aspects of animism seem not to fit into our modern worldview, but the author argues that this is not a question of false religion or perception of the world, but of a flawed ideology. When we take for granted that indigenous people know that everything is alive, the question of compatibility is in reality more one of accuracy and misconception.

He favors and builds up on the Ecofeminist conclusion that the root causes of the anthropocentric stance are human-nature-dualism. Ecofeminists like Carolyn Merchant (mentioned in

2.3) analyze the human-nature hierarchy as a form of dualism because, just like in the man-women hierarchy this distinction is made up and both are of the same matter and soul. The most remarkable parallel is 'Passive Object vs. Active Subject Dualism'. Describing nature or women as objects denies their role in the world and limits their significance and equality in life. They are portrayed as a thing without a will or feelings that just exists but doesn't act on itself. Another parallel is a significant value dualism. By valuing nature only as the means to achieve human goals, it is being stripped of its self-purpose as a being. So when we see nature just as resources or as something existing for us to survive, it loses its independence and is determined by whether we need it or not. The same happens when humans are seen as 'human capital' or women are seen as 'birth machines' they get reduced to their utility for society. This rhetoric can be extremely dangerous as it disowns people's right to exist and be treated with dignity (Kessler, 2018).

In this hierarchy of value, the subordination of women was not only justified, but men were also called upon to subjugate women and appropriate them. Through societal norms and cultural practices, this justification was enforced and strengthened because the longer people lived under these norms, the more they did not question them. Ecofeminists argue for understanding and completely dismantling these oppressive concepts. The logic of domination not only justifies the subordination of women and nature but also other forms of discrimination like racism, classism, and heterosexism. The goal of all struggles against discrimination should be the eradication of this logic. Marily Frye advocates for overcoming discrimination against humans and nature by shifting from an 'arrogant perception' to a 'loving perception' where non-human beings are valued and respected. The human-nature relationship then becomes one of care, love, and closeness.

Overall, ecofeminism opposes any form of domination or discrimination. It is a contextualist form of ethics, which defines relationships between beings rather than rules and sees humans as a part of nature. An important part of the past and further development of ecofeminism is the Inclusivity of different perspectives, e.g., indigenous and

marginalized groups. Only through the diversity of perspectives and opinions is it possible to create a model for just ethics. Furthermore, ecofeminism challenges abstract and hyper-individualism because humans are being shaped by their relationship with other humans and nature. Individualism is embracing an anthropocentric worldview that omits other perspectives and therefore has to be limited. So ecofeminism analyzes every aspect of the logic of domination and its effects and is thus a holistic approach to ethics (Warren, 1990).

Despite the Cartesian dualism being omnipresent in our society, there are still examples of 'modern' humans describing their relationship with plants and forests as intimate. For example, children, interestingly, do not think in this dualism but of people and the environment being in a mutually sustaining relationship. When asked about nature, their perception is more like that of an inter-human relationship. Children playing in the forest or in the fields feel close to this part of nature. They develop feelings related to their environment and trees and are sad if they are cut down. Additionally, everyone seems to have had a favorite place in nature as a child, where they were connected to it and were 'one with nature'. For some, it is climbing trees; for others it is building something in the forest or running through the fields. Many children explore nature, embark on an adventure, or fantasize about nature interacting with them. The author suggests that children do not lack knowledge but are more free in feeling and accepting than adults, who tend to hide their imagination behind reason. While growing up, many children get told that their perception and joy of nature are wrong and they should stop feeling connected to it. This objectification is easy for some but pretty difficult for others (Hoffman, 1992).

Neil H. Kessler elaborates that human-nature relationships require material conditions, but they do not start with them. This implies a criticism of materialism as a way of analyzing the world. Due to materialism being 'a priori' because the material has been inserted before observation, which means materialists have a presumption of the world, they reject findings that do not fit into this worldview. For example, children's experiences to closeness with nature cannot be explained by materialist philosophy; thus, they have to be fake. In

science, truth is what we observe and which theory the observation solidifies, but in philosophy, truth comes from experiences and their interpretation. A school of thought always deals with experiences made by the one thinking about them or other humans. If some of these experiences do not get taken into account because they vary from what we believe, this school of thought is inaccurate or even wrong.

The author reveals that most monist materialists claim to be free from Cartesian dualism, but they are in fact reproducing it. By getting rid of the spiritual realm, they do not value humans and nature the same but deny spiritual experience with nature, which they can't explain. However, this spiritual sense is what makes humans value nature the same as themselves and what it means to be an animist. The only way to get rid of Cartesian dualism is by seeing both nature and humans in the materialist as well as in the spiritual realm. They both are made out of matter, and they both can have a spiritual connection with each other or among themselves. This is why they originally (before the scientific revolution) were in both categories. These connections and spiritual beings can have inherent feelings, consciousness, and meaning. Hence, Cartesian dualism creates a contradiction between our experiences with the world and the imposed worldview.

Accordingly, the author has proven that the lack of closeness in human-nature relationships

Forest therapy; a famous example of emotions felt in connection with nature, in which participants visit a forest or do forest-related activities with the help of therapeutic personnel, which can significantly improve adults mental health by decreasing stress, depression, anxiety, and anger levels..

does not originate in human-originated culture and can be identified purely through the analysis of mistakes in perception and conception that modern societies make. Instead of trying to adopt the animist view of indigenous people because it is more environmentally friendly, he questioned our worldview. This has the big advantage of not being in danger of appropriating the animist culture. Experiences someone makes with nature do not have anything to do with culture but with emotions, feelings, and closeness (Kessler, 2018).

A famous example of emotions felt in connection with nature is the relatively new forest therapy. In such therapy, participants visit a forest or do some forest-related activities with the help of therapeutic personnel, which can significantly improve adults mental health. Especially for people from big cities, forest therapy, compared to control groups, decreased stress, depression, anxiety, and anger levels (Lee, 2017). Thus, it is scientifically proven that humans need the forest for their mental health, independent of how they see the forest and if it has a soul in their perception.

4 How our view of nature influences laws

The goal of ecofeminist philosophy and other philosophers exploring the human-nature relationship is to prevent destruction and pollution by defining better morals. This does not necessarily involve writing new laws because, in a perfect society where everyone behaves morally correctly, there would not be a need for laws. If everyone sees the destruction of nature as unethical, not because it endangers our future but because it harms other beings, people and companies doing so would be boycotted on a large scale. Our system would be one of harmony and mutual respect, and our economy would be very different. Instead of destroying our planet and exploiting workers to pursue the goal of profit, which is meaningless, our goal would be an economy of sufficiency and postscarcity (Hickel, 2020). Because this goal is far off, a reasonable step in the right direction would be implementing (better) rights of nature.

Rights of Nature are a legal instrument that enables ecosystems or species to have inherent rights like people and corporations do. Such rights include the legal right to exist, thrive, and regenerate. This enables the defense of nature in court,

not for the benefit of people who rely on these ecosystems but for the sake of nature itself. Contrary to our current legal system, in which even the environmental protection measures are anthropocentric, Rights of Nature are ecocentric and focus solely on the environment. It addresses complex issues, e.g., deforestation, at the systemic level, thereby enforcing proactive action and effective restoration projects (IPBES Secretariat).

5 Conclusion

However we call this era of human domination over nature, one of the biggest misguided developments was the dualist world view. Through this, a hierarchy of humans over nature and men over women was trying to be justified. Due to its rising popularity in the scientific revolution, it had catastrophic impacts on everyone and everything that was not defined as a subject in the Cartesian sense. Women were subjected, nature was exploited, and during colonialism, indigenous people were seen as things just because they did not fit in the picture of European civilization. The logic of domination over nature and even over marginalized people is still present to this day.

The only way to get rid of this logic is by actively questioning it and exploring the flaws it has in its argumentation. We should realize that neglecting the experiences humans all around the globe have about the nature that surrounds them is inconsistent. Philosophy is the school of thoughts and experiences and should therefore take any experiences into consideration, even the ones that may vary. Our worldview is not based on reason but on a wrong assumption made centuries ago that became embedded in our society. So when we think of nature as something to subdue, we are not progressive but holding on to a tradition of dominance.

Ecofeminism laid out an excellent analysis of the parallels of discrimination against nature and against women; hence, they call for combining efforts to abolish them. A successful fight against discrimination should be universal and seek to eliminate not one form of discrimination but the entire logic of domination. A very important part of this is the inclusiveness of different perspectives, especially those of marginalized groups. For some, it might seem helpful to look at the indige-

nous way of living, but we need to comprehend that cultural appropriation is not the solution but instead a shift in our worldview due to our renewed perception.

Rights of Nature can be a complementary measure to effectively defend nature in our current system. A shift from exploitation and capitalism to a world of mutual respect will certainly take its time, and in the case of the climate crisis, we have absolutely no time to lose. Therefore, the fight for a better future should have a vision of what needs to be overcome and what we want to archive, but it also has to take direct action by defending every other being.



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Rights for Nature in selected states

Author: Sahar Mallak

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1 Introduction

In recent years, a paradigm shift in environmental ethics has given rise to a groundbreaking concept granting legal rights to nature itself. As the global community grapples with escalating environmental challenges, select nations have taken unprecedented steps to acknowledge nature as a subject with inherent rights, transcending the conventional view of the environment as mere property. This term paper dives into the evolving landscape of environmental jurisprudence by exploring the inclusion of nature's rights in the constitutional frameworks of Ecuador, Bolivia, New Zealand, Colombia and India. Through a comparative analysis of these distinct cases, we unravel the diverse approaches these countries have adopted to recognize and protect the rights of nature, examining the legal, cultural, and ecological implications of this transformative concept. From the constitutional enshrinement of Pachamama's rights in Ecuador to the legal personification of the Whanganui River in New Zealand, this paper sheds light on the global movement for the rights of nature and its

potential impact on environmental conservation and societal harmony.

2 Rights for Nature in selected States

The following section focuses on selected countries such as Ecuador, Bolivia, New Zealand, Colombia, and India. In these countries, nature successfully gained rights.

2.1 Ecuador

Ecuador adopted a new constitution in 2008 (Gutmann, 2019). The Latin American country is the first and so far, only country in the world to include the rights of nature in its constitution (Johns, 2023). With this step, Ecuador laid the foundation for the inherent rights of nature. The Constitution de la República del Ecuador (CRE) stood up for the rights of nature. The CRE is a hybrid structure in which various influences are combined. This formerly colonized country rejects any capitalist economic models and development concepts from the West that are growth oriented. However, it does incorporate elements of the legal system of

the former colonial powers and Western concepts of constitutional protection into its development. Their aim is to have a form of society in which nature and people can live together in solidarity and harmony (Gutmann, 2019). This form of society is intended to create mutual acceptance between cultures. Something different does not automatically mean that it is bad. It can be seen as an opportunity to constantly learn from others. Article 71 of the Ecuadorian Constitution attributes the following rights to nature:

"Nature or Pachamama, which realizes and reproduces life, has the right to have its existence, the preservation and regeneration of its life cycles, structure, functions and development processes fully respected." (Wolf, 2022, p. 451). It is also noted that any person can demand from public authorities that the rights of nature be respected (Wolf, 2022). But what does the word "Pachamama" mean? The term Pachamama means Mother Earth in the most widespread non-European language of the Andean region. The Pachamama is considered the goddess of fertility in the Andean cosmology. It is the source of all life and gives humans everything they need to survive. As a result, there is no separation between human beings and nature,

Ecuador as the first, and so far only country in the world, included the rights of nature in its new constitution in 2008. With this step, the Latin American country laid the foundation for the inherent rights of nature. The "Constitution de la República del Ecuador" is a hybrid structure in which various influences are combined. The formerly colonized country rejects any capitalist economic models and development concepts from the West that are growth oriented.

as the cosmos is perceived as living in its entirety (Gutmann, 2019). The principle of realization is the relationships between non-human and human components of the cosmos, which exist because of this vitality. This leads to dependence. It means that people are perceived through their relationships with the community and the cosmos. In other words, when humans harm nature, they harm themselves. It is important to create and maintain balance and harmony. In practice, it means building and maintaining a relationship with the Pachamama, just like a relationship with a human being (Gutmann, 2019).

Nature has acquired rights under the Constitution and is designated as a legal subject under Article 10(2) of the CRE (Deutscher Bundestag, 2021). In Ecuadorian practice, there are decisions in which environmental interests are weighed against human interests.

The CRE sees the nature as an ecosystem. Many regulations are defined in which the protection of ecosystems is seen as a public interest. Even after environmental damage, the restoration of the affected ecosystems should be required. This is essential to maintain the balance within the ecosystems (Gutmann, 2019). In this way, the CRE incorporates an indigenous understanding of the relationship between humans and nature into law (Deutscher Bundestag, 2021).

In the political process, nature's own rights at a constitutional level are more permanent than a simple regulation (Johns, 2022). Not only the state but also private individuals are bound by the Ecuadorian rights of nature. The majority of environmental damage is caused by private individuals. Therefore, all Ecuadorians are obliged by Article 83 No. 6 CRE to respect the rights of nature (Gutmann, 2019). However, the Constitution does not provide any information on the procedural approach or the representation of nature (Johns, 2023).

2.2 Bolivia

In 2009, the Bolivian constitution came into force, in which many articles are related to the environment. Just like in Ecuador, the Pachamama is recognized as an important component and is included in the preamble. In contrast to Ecuador, however, nature in Bolivia has no inherent rights at the constitutional level.

One year later, the "Law on the Rights of Mother Earth" was enacted. The aim of the Article 1 Ley 071 is to recognize the rights of Mother Earth, also known as Madre Tierra, as well as the duties of the state and respect for these rights in society. To protect Madre Tierra's rights, it is defined as a collective subject of public interest in Article 5 of Ley 071. The rights of Mother Earth can be found in Article 7 of Ley 071. Article 8 of Ley 071 outlines the obligations of the state to guarantee these rights. A natural or legal person who represents Madre Tierra and brings a legal action in court (Johns, 2023).

2.3 New Zealand

The agreement, which was concluded in 2012 between the Maori of the Whanganui River and the New Zealand government, is a historic step towards recognizing the river as a living being and a legal entity. The Whanganui River Agreement in New Zealand is about recognizing the rights of indigenous peoples and the rights of nature. The indigenous people struggled for environmental sovereignty and a permanent connection between the Whanganui Iwi and the river.

The historical context reveals more than a century of legal battles in which the Whanganui Iwi fought against Crown laws and policies that eroded their customary rights over the river. The 1999 Waitangi Tribunal report recognized Maori interests in the river and emphasized their authority over the river's land, water, and fisheries. The legal recognition paved the way for negotiations that resulted in the 2012 Tūtohu Whakatupua Agreement, which granted the Whanganui River its own legal personality and recognized it as Te Awa Tupua, a living entity with its own legal status.

The importance of this recognition in the broader context of the movement for the rights of nature draws parallels with international efforts, such as Bolivia's constitutionalizing of the rights of Mother Earth. The ongoing negotiations are about appointing a guardian for the river and developing a strategy for the river to manage its ecological, social, cultural, and economic aspects (Hsiao, 2012).

The case of the Whanganui River is presented as a transformative story of decolonization, highlighting its potential influence on other jurisdic-

tions and contribution to the global movement for the rights of nature.

2.4 Columbia

In 2016, the river Rio Atrato was granted the right to protection, conservation, maintenance, and reforestation after the Colombian Constitutional Court dealt with illegal mining activities. The river was protected by members of the government and the local population as guards (Johns, 2022).

The river Rio Atrato has rights regarding hydraulic engineering projects and the extraction of mineral resources after indigenous and Afro-American communities stood up for it (Wolf, 2022).

2.5 India

The religion of Hinduism dominates in India. Because of the strong spiritual connection to the rivers Ganges and Yamuna a court in India has granted both rivers' rights (Deutscher Bundestag, 2021).

3 Legal perspectives

In our society, it is difficult to imagine that people do not have rights that protect them. Why can't the right to life, liberty, and security of person from the Article 3 of the Human Rights Convention also apply to nature? At the end of the day, we are not only harming ourselves but also the nature when we shamelessly exploit it. Article 4 of the Human Rights Convention prohibits slavery in all its forms. This prohibition and the prohibition of torture in Article 5 of the Human Rights Convention should not only apply to us humans, but also to nature.

4 Conclusion

In conclusion, the exploration of rights to nature in Ecuador, Bolivia, New Zealand, Colombia and India reveals different approaches and perspectives in recognizing the intrinsic value of our environment. Ecuador is a pioneering example that enshrines the rights of nature in its constitution and promotes a holistic vision of a society where nature and humanity coexist harmoniously. The indigenous concept of "Pachamama" reflects the interwoven relationship and reminds us that harming nature is inherently harmful to ourselves.

Bolivia, while recognizing the importance of Pachamama, is taking a different path by adopting

the "Law on the Rights of Mother Earth". This distinct legal framework designates Mother Earth as a collective object of public interest and emphasizes the social obligation to respect her rights. The New Zealand case of the Whanganui River Agreement demonstrates the historic struggle for environmental sovereignty and indigenous rights that culminated in the river being given legal personality as Te Awa Tupua.

Colombia, facing ecological problems with the Rio Atrato, demonstrates the role of legal intervention in protecting the rights of nature. The granting of rights to the river, together with the active involvement of local communities, highlights the importance of grassroots movements in ensuring environmental justice.

The absence of procedural details or mechanisms for the representation of nature in some constitutional frameworks during this examination prompts further reflection on the practical aspects of the implementation and enforcement of these rights. As we celebrate these milestones, it is essential to critically examine potential challenges and ensure that the rights-of-nature paradigm effectively contributes to environmental protection without undermining human interests or creating legal ambiguity.

The global movement for the rights of nature witnessed in these selected states offers a transformative narrative of decolonization and environmental stewardship. As we navigate the complexities of the twenty-first century, these legal advances underscore the importance of redefining our relationship with the natural world, not as a resource to be exploited, but as a partner with rights of our own. The ongoing dialogue on the rights of nature serves as a beacon to guide nations towards a future where environmental sustainability and human prosperity come together.



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Rights for Nature in Germany

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1 Introduction

In the last decades, the development of the rights of nature has become a significant issue in various parts of the world. This emerging approach views nature not only as a resource for human use, but as a value in its own right that must be protected and respected. Over the last years the discussion about a rights for nature have also increased in Germany. This paper takes a look at the current state of the debate on natural rights in Germany. The first part gives an overview about the current status of natural rights all over the world. The second part deals with the rights of nature in Germany and how these have developed in recent years, for example through the citizens' initiative in Bavaria, which addresses the rights of nature and makes them the subject of a referendum. The third part deals with the decision of the Federal Constitutional Court. This decision in March 2021 on the issue of climate protection marked a significant milestone in the context of the global climate crisis and finally the class action lawsuit.

2 The current status of nature rights

The discussion about the inherent rights for nature has recently become increasingly important in law. But what is the aim behind giving the nature its own rights and why is it so important? The aim of this concept is to provide the nature with more effective and powerful protection by granting it legal personality and individual rights, and at the same time to initiate a fundamental change in the perspective of nature. The aim is to move away from the idea that nature is merely an exploitable resource and to create a sustainable relationship between humans and nature. The first initiation for the concept of recognition of nature rights came from Christopher Stone. In his book "Should trees have standing" in which he illustrates the extension of rights that were previously only available to a certain group of individuals to legal entities and all persons in a company. According to Stone, progress in this direction was previously unimaginable and the next step in the legal sphere would be for animals and plants to be recognized as living being (Johns, 2023). The questions whether the nature should be granted its own rights

has especially increased in third world countries such as Ecuador, Guatemala, and Bolivia. Ecuador was the first country in the world to give nature its own rights and recognize it as a legal entity in its constitution in 2008 (Wolf, 2022). Ecuador not only grants nature or pacha mama the right to respect its existence and the conservation and regeneration of its life cycle, but also establishes that any person, community, nation, or nationality may request the legitimate public authority to realize the rights of nature (Steinberg, 2023). Bolivia had a similar evaluation in 2010 and in 2019, river residents in Guatemala argued in the constitutional Court of Guatemala that they have a cultural and spiritual relationship with water, which they see as a living being that should not be killed by pollution (Wolf, 2022). Because of the influence of the indigenous population more than 23 counties already recognized nature rights (Bangert, 2021).

3 Rights for nature in Germany

The discussion about a fundamental environmental right in Germany began in the 1970s and has increased ever since. There are incomplete efforts to introduce subjective rights in relation to people and nature recognizable in some state constitution but there are no subjective rights for nature itself in Germany. Recognizing nature as a legal entity would be a new development in the German legal system. This could especially collide with the anthropocentric Basic Law, as it prioritizes the individual and human dignity. Enforcing nature's own rights would ensure a development away from an anthropocentric approach to create a sustainable relationship between humans and nature. Such stricter environmental protection would be prominently anchored in the law through the recognition of natural rights. The significant symbolism is a clear advantage that would result from this. These rights could be claimed by anyone individually in court, which is expected to make the regulation highly effective (Johns, 2023). Even today, the demand for nature's own rights still moves society. For example, a citizens' initiative in Bavaria has once again raised the issue of nature's rights and made it the subject of a referendum. The regional court in Erfurt also dealt with nature's rights by referring the question to the European Court of Justice as to whether nature's own rights can be

justified based on European fundamental rights. The demand for nature's own rights criticizes the fact that the anthropocentric interpretation of the regulations leads to loopholes in the protection of common ecological goods that are without rights and defenseless. Christopher Stone's book "should trees have standing" was fundamental to this. In it, he describes humans, animals and plants as equal living beings. Animals in particular are seen as the bearers of these rights, as they are of the same nature as humans. However, not everyone views it this way. Opponents of such approaches see humans as unique and not comparable to animals. There is also a constitutional objection that equating animals and humans would conflict with the human dignity standardized in Article 1 of the Basic Law (Wolf, 2022) Even if environmental protection is not yet part of the Basic Law, sub-matters of environmental protection are regulated in the competence provisions. Although no constitutional mandate or specific obligation can be derived from these, it would not be correct to say that the Basic Law is not environmentally aware. There are some Basic Laws, above all Art. 2 Abs.1 and 2 and Art. 14 GG (basic law), which contain important partial environmental protection guarantees. Art.1 Abs.1 GG is also of great importance, as an anthropocentric basic idea of the Basic Law is derived from it in connection with the preamble, which is intended to ensure that environmental protection is not regarded as irrelevant to human beings (Heinz, 1990). However, there are also some important environmental laws in Germany that ensure the protection of nature. These include, for example, the Federal Nature Conservation Act. The Federal Nature Conservation Act, for example, has some significant approaches that go beyond an anthropocentric focus. §1 Abs.1 BNatSchG (The Federal Nature Conservation Act) protects nature and the landscape as the basis of human life. Furthermore, § 1 Abs.1 No. 4 BNatSchG makes it clear that nature and the landscape are protected for the sake of "diversity, character and beauty". The Federal Nature Conservation Act is not based on the conventional anthropocentric-mechanical view of the world, as the definition of nature conservation goals such as diversity, uniqueness etc. goes beyond the mere recognition of ethical concepts. It makes it clear that the Nature Conservation Act

Till the present day, there are no subjective rights for nature itself in Germany. Recognizing nature as a legal entity would be a new development in the German legal system. This could especially collide with the anthropocentric Basic Law, as it prioritizes the individual and human dignity.

also considers the resilience and regenerative capacity of the respective ecosystems as protection priorities (Heinz, 1990). In addition, there is the Environmental Impact Assessment Act, which includes an environmental impact assessment that is applied to projects that have a particular impact on the environment (StMUV Bayern, 2024) and the Climate Protection Act, which, with reference to the Paris Climate Protection Agreement, contains the obligation to limit the increase in the global average temperature to below 2 degrees and to 1.5 degrees if possible compared to preindustrial levels and to pursue greenhouse gas neutrality by 2050 as a long-term goal (Mührel, 2022).

4 The decision of the Federal Constitutional Court

Against the background that the measures already taken to protect the climate, their livelihoods and their future freedom are not sufficient, the Federal Constitutional Court attracted particular attention in March 2021 with its climate protection ruling. This addressed three key points. Firstly, the state's duty to protect life, health and property from damage caused by climate change. Secondly, the content of Art. 20a GG as a climate protection requirement, as well as the intertemporal safeguarding of freedom through a proportionate distribution of the burdens from the reduction in the consumption of gas, oil and coal through to climate neutrality (Christ, 2023).

4.1 The fundamental right to protection

In the climate resolution, the Federal Constitutional Court deals with the Climate Protection Act, which the grand coalition launched in 2019. The aim of the law is to bring German greenhouse gas emissions into line with the obligations under the Paris Agreement and to create the legal framework for the implementation of the European Union's Climate Protection Regulation (Jahn, 2022). The Federal Constitutional Court has assumed that the state, in cooperation with other countries, has an obligation to take measures to ensure global climate protection by reducing climate-damaging emissions, especially CO₂. There is an everincreasing risk that fundamental rights will be severely impaired by the rising temperature of the earth in the form of heat waves, flooding and much more. This results in the duty to protect climate neutrality. CO₂ emissions into the atmosphere should therefore be reduced to zero, as CO₂ is not broken down in the atmosphere. The rise in the earth's temperature can therefore only be stopped if at some point no additional CO₂ is released into the atmosphere. Precautions relating to climate change must also be taken. These include, for example, the strengthening and raising of dykes and the retention of buildings in areas with a higher risk of flooding. In order to avoid urban heat islands, fresh air corridors and green spaces should be created, or agriculture and forestry should be adapted to changing climate conditions.

4.2 Art. 20a of basic law

In its climate protection ruling, the Federal Constitutional Court clarified the significance of the climate protection requirement in the environmental article Art. 20a GG (basic law). According to Art. 20a GG, the state also protects the natural basis of life for future generations through laws and their implementation and through jurisdiction. According to Art. 20a GG, it is the responsibility of the legislator to specify the protection of the climate as the natural basis of life. Therefore, the courts have no authority to develop concepts for the implementation of constitutionally prescribed climate protection and must implement the legally stipulated climate protection within their scope of interpretation and application.

4.3 Intertemporal protection of freedom

The intertemporal protection of freedom, which results in Art. 20a GG in conjunction with the right to freedom of action in Art. 2 I GG has received a high reputation. The BVerfG (Federal Constitutional Court) concluded that the binding limitation of the rise in the Earth's temperature to well below 2 degrees Celsius and if possible, to 1.5 degrees Celsius, as stipulated in Art. 20a GG, results in a global CO₂ residual amount due to the scientific correlation between the CO₂ concentration in the atmosphere and the Earth's temperature (Steinberg, 2023). Action must be taken in a way that protects fundamental rights and is therefore forward-looking, so that the opportunities for freedom guaranteed by fundamental rights can still be maintained and protected for future generations through a proportionate distribution of the obligation to reduce CO₂ emissions (Schlacke, 202).

5 The class action lawsuit

Another way to enforce nature rights is through class action lawsuits. Associations and societies have the opportunity to review the legality of administrative decisions in the name of nature and the environment. This often occurs, for example, in the case of construction projects that have a negative impact on the environment and nature as a result of their implementation. Environmental and nature conservation associations can take legal action, even if their rights have not been violated (Nabu, 2020). According to § 2 Abs.1 S.1 UmwRG (environmental law), "domestic or foreign

Environmental and nature conservation associations have the opportunity to review the legality of administrative decisions in the name of nature and the environment, as well as to take legal action, even if their own rights have not been violated.

association(s) recognized in accordance with Section 3" are entitled to bring an association action. According to §2 Abs.2 S.1 UmwRG, an association that is not yet recognized may also bring an action, but only if the requirements for recognition are met and an application for recognition has been submitted. The prerequisites for recognition in accordance with §3 Abs.1 S.2 UmwRG are that the association does not only temporarily promote the objectives of environmental protection, has been in existence for at least three years at the time of recognition and has been active in the sense of No. 1. As well as the guarantee of an appropriate fulfillment of tasks and the pursuit of charitable purposes and that any person can join as a member (Deutscher Bundestag, 2018).

6 Conclusion

The concept of granting nature its own rights have become enormously important in German law. While Country's such as Ecuador and Bolivia have set very high standards regarding nature rights, more Country's including Germany have been slowly following their example. Christopher Stones Book "Should trees have standing" was the first initiation for the concept of giving nature rights. There are also some basic laws such as Art.2 Abs.1 and 2 and Art.14 that contain important partial environmental protection guarantees and the Federal Nature Conservation Act includes some important approaches that extend beyond an anthropocentric focus. The Federal Constitutional Court also attracted attention in 2021 with its climate protection ruling. These include the state's duty to protect life, health and property from damage caused by climate change, as well as the content of Article 20a of the Basic Law as a climate protection requirement and the intertemporal safeguarding of freedom. In addition, associations and societies can use class actions to review the legality of administrative decisions in the name of nature and the environment. Even though there are efforts to introduce subjective rights in relation to people and nature recognizable in some state constitution but there are no subjective rights for nature itself in Germany and even if the recognition of nature as a legal subject would be an innovation in the German legal system, it could come into conflict with the anthropocen-

tric system, which gives priority to the individual and human dignity. The question is to what extent Germany will be able to incorporate the rights of nature into the system in the upcoming years without conflicts arising and thus create a healthy relationship between humans and nature.



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Conclusion

In this paper we analyzed the flawed human-nature relationship and the inadequate legal framework resulting from it. With a change of perception of nature, not as resources but as a partner with rights of their own and an improvement of rights we can solve the environmental crisis.

In the first part the development of the dualist worldview and the hierachial thinking of humans as superior was described and debunked. When we think of nature as something to subdue, we are not progressive but holding on to a tradition of dominance. A shift from exploitation to a world of mutual respect will certainly take its time, and in the case of the climate crisis, we have absolutely no time to lose. Therefore, the fight for a better future should have a vision of what needs to be overcome and what we want to archive, but it also has to take direct action by implementing practical rights of nature.

In the second part of the exploration of rights to nature in Ecuador, Bolivia, New Zealand, Colombia, and India, we discover diverse approaches and perspectives towards recognizing the intrinsic value of our environment. Ecuador stands out as a pioneering example by enshrining the rights of nature in its constitution and advocating for a society where nature and humanity coexist harmoniously. The indigenous concept of "Pachamama" illustrates the interconnected relationship between humans and nature, emphasizing that harming nature ultimately harms ourselves. Bolivia, while also valuing Pachamama, has taken a different approach by implementing the "Law on the Rights of Mother Earth," which designates Mother Earth as a collective object of public interest and stresses the social responsibility to respect her rights. The case of the Whanganui River Agreement in New Zealand showcases the historic struggle for environmental sovereignty and indigenous rights, resulting in the river being granted legal personality as Te Awa Tupua. In Colombia, facing ecological challenges with the Rio Atrato, legal inter-

vention has played a crucial role in protecting the rights of nature. Granting rights to the river and involving local communities demonstrate the significance of grassroots movements in ensuring environmental justice. The global movement for the rights of nature observed in these countries offers a transformative narrative of decolonization and environmental stewardship. As we navigate the complexities of the twenty-first century, these legal advancements underscore the need to redefine our relationship with the natural world – not as a mere resource to exploit but as a partner with inherent rights. The ongoing discourse on the rights of nature serves as a guiding light for nations striving towards a future where environmental sustainability and human prosperity go hand in hand.

The last part addresses the rights for nature in Germany. Over the past years the concept of granting nature its own rights have become enormously important in German law. While Country's such as Ecuador and Bolivia have set very high standards regarding nature rights, more Country's including Germany have been slowly following their example. Christopher Stones Book "Should trees have standing" was the first initiation for the concept of giving nature rights. There are also some basic laws such as Art. 2 Abs. 1 and 2 and Art. 14 that contain important partial environmental protection guarantees and the Federal Nature Conservation Act includes some important approaches that extend beyond an anthropocentric focus. The Federal Constitutional Court also attracted attention in 2021 with its climate protection ruling. These include the state's duty to protect life, health and property from damage caused by climate change, as well as the content of Article 20a of the Basic Law as a climate protection requirement and the intertemporal safeguarding of freedom. In addition, associations and societies can use class actions to review the legality of administrative decisions in the name of nature and the environ-

ment. Even though there are efforts to introduce subjective rights in relation to people and nature recognizable in some state constitution but there are no subjective rights for nature itself in Germany and even if the recognition of nature as a legal subject would be an innovation in the German legal system, it could come into conflict with the anthropocentric system, which gives priority to the individual and human dignity. The question is to what extent Germany will be able to incorporate the rights of nature into the system in the upcoming years without conflicts arising and thus create a healthy relationship between humans and nature.

Bibliography and sources

- Bachmann R. and Navarro V. (2021). *Derechos De La Naturaleza Y Personalidad Juridica De Los Ecosistemas: Nuevo Paradigma De Proteccion Medioambiental*. Un Enfoque Comparado. *Revista Internacional de Pensamiento Político* 16, pp. 357-378.
- Bangert, M. (2021). *Grundlagen des Umweltrechts*. Retrieved from: www.ufz.de/komur/index.php?de=47591#:~:text=Heute%20sind%20Eigenrechte%20der%20Natur,im%20Jahre%202008%20Pionierarbeit%20leistete.
- Bäumler, J., *KlimaR* (2023). Heft 4, 98,99.
- Bogdandy von, A., *ZaöRV* (2022), Heft 1, 50.
- Böckenförde, E. W. (1991). *Staat, Verfassung, Demokratie: Studien zur Verfassungstheorie und zum Verfassungsrecht*. Frankfurt am Main: Suhrkamp.
- Breuer, R. (2022). *Klimaschutz durch Gerichte?*. *Neue Zeitschrift für Verwaltungsrecht (NVwZ)*, 17, pp. 1233 – 1320.
- Britz, G. (2022). *Klimaschutz in der Rechtsprechung des Bundesverfassungsgerichts*. *Neue Zeitschrift für Verwaltungsrecht (NVwZ)*, 12, pp. 825 - 904.
- Bundesverfassungsgericht (BVerfGE). (2021). *BVerfGE 157*, 30. 24/03/2021 – 1 BvR 2656/18,Rn. 1-279. Retrieved from: www.bverfg.de/e/rs20210324_1bvr265618.html
- Bundesverwaltungsgericht (BVerwGE). (1977). *BVerwGE 54*, 211. 29/07/1977 – IV C 51.75. Retrieved from: www.juris.de/r3/document/NJRE000596705.
- Burgi, M., *NVwZ* (2023), Heft 3, 1193-1196 und *NVwZ* 2021, Heft 13, 912.
- Calliess, C. (2001). *Rechtsstaat und Umweltstaat: Zugleich ein Beitrag zur Grundrechtsdogmatik im Rahmen mehrpoliger Verfassungsrechtsverhältnisse*. Tübingen: Mohr, Siebeck.
- Calliess, C. (2021a). *Möglichkeiten und Grenzen eines „Klimaschutz durch Grundrechte“ (Klimaklagen): Zugleich ein Beitrag zum Vorschlag von Ferdinand von Schirach für ein Grundrecht auf Umweltschutz*. *Berliner Online-Beiträge zum Europarecht*, No. 129.
- Calliess, C. (2021b). *Klimapolitik und Grundrechtsschutz*. *Zeitschrift für Umweltrecht (ZUR)*, pp. 323-332.
- Calliess, C. (2022a). *Vorsorgeprinzip, planetare Grenzen und Climate Engineering*. *Berliner Online-Beiträge zum Europarecht*. No. 124.
- Calliess, C. (2022b). *Art. 20a*. In: Dürig, G., Scholz, R. und Herzog, R. *Grundgesetz-Kommentar (GG)*, 98. ed.
- Calliess, C., *ZUR* (2022), Heft 9, 451-459.
- Darpö, J. (2021). *Can Nature get it right?*
- Deutscher Bundestag (2018). *Die Verbandsklage im Umwelt- und Naturschutzrecht*. Retrieved from: www.bundestag.de/resource/blob/583690/fdd232be9af1080c21194c82c420a5e9/WD-7-208-18-pdf-data.pdf.
- D'Olimpio, L. (2023). *Ethics Explainer: Plato's Cave*. Retrieved from: www.ethics.org.au/ethics-explainer-platos-cave/.
- Doran, P. and Killean, R. (2022). *Rights of nature: Origins, development and possibilities for the island of Ireland*. Ireland: Environmental Justice Network Ireland.
- Ekardt, F., Heß, F. and Wulf, J. (2021). *BVerfG-Klima-Beschluss: Folgen für Bund, EU, Länder und Kommunen*. *Europäische Zeitschrift für Umweltrecht (EurUP)*, 3.
- Epstein S./ Dahlén, M./Envist, V. and Boyer E. (2022). *Liberalism and Rights of Nature: A Comparative Legal and Historical Perspective*. *Law, Culture and the Humanities*, pp. 1-23.
- Ewering, E. and Gutmann, A. (2021). *Gibt Bayern der Natur Rechte?*. (Last up-dated 10 September 2021). Retrieved from: www.verfassungsblog.de/gibt-bayern-der-natur-rechte/.
- Faßbender, K. (2021). *Der Klima-Beschluss des BVerfG – Inhalte, Folgen und offene Fragen*. *Neue Juristische Wochenschrift (NJW)*, No. 29, p. 2091.
- Federal Law Gazette Volume 1994 Part I No. 75, issued on 3 November 1994, page 3146.
- Franzius, K. (2022). *Der Klimabeschluss des BVerfG – Eine verfassungsrechtliche Einordnung*. *Klimarecht (KlimR)*, No. 4, p. 102-107.
- Gärditz, K. (2022). *Article 20a GG*. In: Landmann, R. and Rohmer, G.
- Gutmann, A. (n.d.). *Pachamama als Rechtssubjekt?*. *Rechte der Natur und indigenes Denken in Ecuador*. *Zeitschrift für Umweltrecht*.
- Gutmann, A. (2019). *Pachamama als Rechtssubjekt?*. *Zeitschrift für Umweltrecht (ZUR)*, No. 11, pp. 611 – 618.
- Hickel, J. (n.d.) *Less Is More: How Degrowth will save the world 2020*.
- Harrison, P. (1992). *Descartes on Animals*. *The Philosophical Quarterly* (1950-), 42(167).
- Harvey, G. (2015). *The Handbook of Contemporary Animism*. Acumen Handbooks.
- Heinz, K. (n.d.). *Eigenrechte der Natur, Lichtblick oder Irrlicht für einen verstärkten rechtlichen Schutz der Natur*.
- Hoffman, E. (1992). *Visions of innocence: Spiritual and inspirational experiences of childhood*. Boston: Shambhala 1992.
- Hofmann, E. (2021). *Der Klimaschutzbeschluss des BVerfG*. *Neue Zeitschrift für Verwaltungsrecht (NVwZ)*, No. 21, pp. 1561-1640.
- Hsiao, E. (2012). *Whanganui River Agreement – Indigenous Rights and Rights of Nature*. *Environmental Policy and Law*, Vol. 42, pp. 371 – 375.
- IPBES Secretariat. (n.d.). *Rights of Nature (RON)*. Retrieved from: www.ipbes.net/policysupport/tools-instruments/rights-nature-ron.
- Johns, L. (2023). *Eigenrechte der Natur im internationalen Kontext*, Berlin, *KlimR* 2023.
- Jung, H. (2009). *Recht und kulturelle Identität – Anmerkungen zur Rezeption, Trans-plantation und Diffusion von Recht*. *Zeitschrift für die gesamte Strafrechtswissenschaft*, vol. 121, no. 2, pp. 467-500.
- Jung, H. (2017). *Should we compare Law or Cultures?*. *Bergen Journal of Criminal Law and Criminal Justice*, vo. 5.1, pp. 1 -17.
- Kessler, N. H. (2019). *Ontology and closeness in Human-Nature relationships: Beyond Dualisms, Materialism and Posthumanism*.
- Kersten, J. (2022). *Das ökologische Grundgesetz*. München: C.H.Beck.
- Klinger, R. (2021). *Ein Grundrecht auf Umweltschutz*. *Jetzt*. *Zeitschrift für Umweltrecht (ZUR)*, No. 5, pp. 257 – 320.
- Kraski, R., Prityi, M. and Münster, S. (2019). *Constitutional Provisions*. In: Junker, W., ed., *Environmental Law Across Cultures: Comparisons for Legal Practice*, 1st. ed., pp. 121-139.
- Lee, C. (1980). *Effects of Forest Therapy on Depressive Symptoms among Adults: A Systematic Review*. *International Journal of Environmental Research and Public Health* 2017. *Merchant*, 14(3):321. doi: 10.3390/ijerph14030321.
- Moore, J. W. (2016). *Anthropocene or Capitalocene? Nature, History, and the Crisis of Capitalism*, PM Press.
- Mührel, J. (2022). *Welche Natur? Zur Spezifizierung des Trägers der Rechte der Natur im Globalen Norden*. *Zeitschrift für Umweltrecht ZUR* No. 9, pp. 464-472.
- Murswiek, D. (1996). *Staatsziel Umweltschutz (Art. 20a GG) – Bedeutung für Rechtssetzung und Rechtsanwendung*. *Neue Zeitschrift für Verwaltungsrecht (NVwZ)*, No. 3, pp. 222-230.
- Nabu (n.d.). *Fürsprecher der Natur*. Retrieved from: www.nabu.de/natur-undlandschaft/naturschutz/deutschland/16700.html
- Nichols, A. M. Kenneth Worthy, Elizabeth Allison, and Whitney A. Bauman (2021). *After the Death of Nature: Carolyn Merchant and the Future of Human-Nature Relations*. *Journal for the Study of Religion, Nature and Culture* 15.
- Neilson, T. (2024). *What is the anthropocene?* Perlego Knowledge Base. Retrieved from: www.perlego.com/knowledge/study-guides/what-is-the-anthropocene/.
- O'Bryan K. (2022) *Legal Rights for Rivers. Competition, Collaboration and Water Governance*, 1st ed. Routledge, pp. 769-775.
- Rehbinder, M (1970). *Grundfragen des Umweltrechts*. *Zeitschrift für Rechtspolitik (ZRP)*, 11/1970, pp. 250-256.
- Scalercio, M. (2018). *Dominating nature and colonialism*. *Francis Bacon's view of Europe and the New World, History of European Ideas*, 44:8.
- Schlacke, S. (2021). *Klimaschutzrecht – Ein Grundrecht auf intertemporale Freiheitssicherung*. *Neue Zeitschrift für Verwaltungsrecht (NVwZ)*, No. 13, pp. 912-916.

- Schmidt-Aßmann, E. (2018). *Zum Standort der Rechtsvergleichung im Verwaltungsrecht*. Zeitschrift für ausländisches öffentliches Recht und Völkerrecht (ZaöRV), No. 4, pp. 807-862.
- Seelmann, K. (2007). *Rechtswissenschaft Als Kulturwissenschaft: Ein Neukantianischer Gedanke und sein Fortleben*. In: Rechtswissenschaft als Kulturwissenschaft?. pp. 121-134.
- Siebert, H. (1986). *Intertemporale Allokation*. Frankfurt: Perter Lang.
- Steinberg, R. (2023). *Rechte der Natur in der Verfassung?* NVwZ 2023.
- StMUV Bayern (2024). *Die Umweltverträglichkeitsprüfung*. Retrieved from: www.stmuv.bayern.de/themen/umweltvertraeglichkeitspruefung/index.htm.
- Think That Through. (2022). *Capitalocene: How capitalism caused the climate crisis* [Video]. YouTube. Retrieved from: www.youtube.com/watch?v=gDyFYWQ_M.
- Uechtritz, M. and Rutloff, M. (2022). *Der Klimaschutz-Beschluss des Bundesverfassungsgerichts*. Neue Zeitschrift für Verwaltungsrecht (NVwZ), No. 1, pp. 9-15.
- United Nations General Assembly. (1987). *Report of the World Commission on Environment and Development*. A/42/427. Retrieved from: www.sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf.
- United Nations. (1992). *Framework Convention on Climate Change*. Reg. No. 30822, UN Treaty Collection, Vol. II, Ch. 27, e.g. Art. 3, para. 3.
- United Nations. (1992). *Rio Declaration on Environment and Development*. A/CONF.151/26, Vol. I, Principle 15.
- Von Schirach, F. (2021). *Jeder Mensch*. Berlin: Luchterhand. Wegener, M. (2022). *Menschenrecht auf Klimaschutz?* Neue Juristische Wochenschrift (NJW), No. 3, pp. 425-431.
- Warren, K. J. (1990). *The Power and Promise of Ecological Feminism*. *Philpapers*, 12(2).
- Wilford, J. N. (2002). *When Humans Became Human*. The New York Times. Retrieved from: www.nytimes.com/2002/02/26/science/when-humans-became-human.html.
- Wolf, R. (1984). *Das Bundesverfassungsgericht – Hüter der Umwelt?* Kritische Justiz, Vol. 17, No. 3, pp. 239-256.
- Wolf, R. (2022). *Eigenrechte der Natur oder Rechtsschutz für intertemporalen Freiheitsschutz?* Zeitschrift für Umweltrecht (ZUR), No. 9.

3

Case study
**Traditional coca leaf
consumption and
drug trafficking in
Colombia**

Prologue

Author: Prof. Dr. Héctor Andrés Bombiella Medina

Does the legal eradication of illicit crops in Colombia negatively impact the human rights of rural social groups living in the surrounding areas? Furthermore, can political and legal experiences of Germany contribute to this discussion? If you find these questions compelling, please keep reading. Through a set of papers, this section addresses the intricate relationship between human rights and the various policies that Colombian governments have implemented over the last few decades to eradicate illicit crops, in particular the coca plant.

This is not a straightforward conversation. The situation must be addressed from multiple perspectives. The authors are well aware of this challenge. The political and economic dimensions are in permanent feedback with the cultural and environmental aspects of the issue. In this context, discussions related to the traditional uses of coca leaves by indigenous people and the sustainability of eradication schemes, are addressed. Furthermore, the influence of United States-led geopolitics on Colombian internal decisions is a central aspect analyzed in these papers. As mentioned by Heyd, “The USA has essentially been the only country that has supported the fight on drugs from the prohibition/sanction approach.” This chapter takes an overview approach sparkling on the reader the intention to learn more about Colombia and the coca situation.

Colombia is the leading producer of cocaine in the world and has the largest cultivated area of coca plants. According to the Colombia Coca Survey of the United Nations Office on Drugs and Crime (UNODC, 2021), in 2020 there were 143 thousand hectares of coca crops throughout the territory, noting a reduction of 7 percent compared to 2019, which had 154 thousand hectares. Although there was a decline in cultivated area, cocaine production increased as the average yield per hectare rose by about 18 percent, from 6.7 kilograms in 2019 to 7.9 kilograms per hectare in 2020. Addi-

tionally, almost half of the coca plantations are located in territories with special protection, including areas of cultural, natural or eco-systemic interest, like indigenous reserves or black Afro-Colombian communities’ collective territories, natural parks or protected areas.

In the Andean region, coca cultivation for traditional, medicinal, and mystical purposes has been practiced for centuries. Today, indigenous people from various areas in Colombia, Bolivia, Ecuador, and the Peruvian mountains advocate for the ancestral use of the coca plant. Indigenous communities in Colombia that support the use of coca leaf are found in the northern Caribbean region as well as in the southern border states of Cauca, Popayan, and Nariño. This means that discussions about territory, while geographically specific, cannot be considered in isolation; any policy allowing a specific use must be reflected across all relevant areas. Furthermore, there is a wide range of traditional uses of the coca leaf. Some indigenous groups focus exclusively on its mystical use, while others, with a less strict approach, also advocate for its therapeutic and nutritional potential (Pinto-Marroquin et al. 2022). Everyday further layers of meanings and uses of the plant continue appearing.

The internal armed conflict in Colombia represents a major dimension that is often addressed separately from other issues. However, it was only after the cocaine boom in the 1980s and 1990s that the massive cultivation of coca plants became widespread. Radical left-wing guerrilla groups emerged in Colombia during the 1960s, following the betrayal and abuse of peasant communities by state security forces led by elites and large landowners. While the conflict has multiple roots, most are linked to land tenure, the capacity to exploit land, and institutional opportunities to access and enjoy basic rights. The lack of state presence and the international environment also created conditions that allowed for the consolidation and

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escalation of guerrilla groups and their eventual political counterparts. Over time, cocaine and drug trafficking resources gradually became the main source of income for guerrilla armies, making them major players in various links of the drug trafficking value chain.

Aligned with U.S. foreign policy to combat drug trafficking, the Colombian government implemented aggressive anti-narcotics campaigns, primarily through aerial spraying of glyphosate and forced eradication of coca crops. The main focus of the policy was to target the first and most vulnerable link in the cocaine trafficking network: the landless peasants, who were often presumed to be either guerrilla employees or collaborators. Assuming that peasant families were associated with armed groups made it easier for the government to justify aerial fumigation. However, this perspective only addresses the leftist guerrilla aspect of the issue and must be considered alongside the role played by paramilitary forces during this period.

In this chapter, the authors do not shy away from these complexities but embrace them, seeking alternatives for understanding the situation without overlooking relevant variables. How do you approach research that must account for historical, environmental, cultural, political, and econo-

mic dimensions? You either choose a specific topic or aspect and begin to untangle its components, or take a broader view and, using a catalyst- such as the human rights discourse- attempt a comprehensive approach. In other words, the articles allow to see the authors’ interest connecting the dots and bring the discussion back to the human rights’ predominant narrative.

In the first article, Cara-Maxine Heyd, examines the complex relationship between USA war on drug policies and their impact on human rights for Colombia. It reflects on today’s relevance of the Universal Declaration of Human Rights (1948) as a framework for identifying and defining human rights. The article briefly addresses the use of glyphosate against coca plantations and the Colombia-U.S. Free Trade Agreement. It presents data on the historical growth of coca plantations and describes the affected social groups and regions, including peasant communities and deforested areas. She examines how various strategies to control coca cultivation, including aerial spraying with glyphosate, have impacted human rights, particularly the right to adequate living conditions. The use of glyphosate has affected over 100 thousand hectares, impacting numerous social groups, including landless peasants, indigenous peoples, and displaced communities by the internal conflict. The negative effects extend beyond health and livelihood, exacerbated by the illegality and social stigma associated with coca cultivation, which complicates institutional responses.

Subsequently, the author explores how several human rights are impacted by eradication schemes related to coca cultivation. For the right to work, peasant growers, as the initial link in the cocaine value chain, face significant challenges. Government plans should focus on creating alternative job opportunities and supporting transitions to other products, including setting minimum wages and providing basic access to institutional benefits. Similarly, the right to food is compromised as new generations of peasants, born during the coca boom, have neglected traditional farming practices, leading to a loss of traditional agricultural practices and techniques agricultural. For the right to health and human dignity, glyphosate use exacerbates health issues and impacts non-coca

crops, affecting food sovereignty and security. The author notes that glyphosate, classified as “possibly carcinogenic” by the World Health Organization, has been controversially used due to political rather than scientific evidence, which could trigger a humanitarian crisis. Lastly, the right to cultural life is affected by the marginalization of traditional coca use, which holds significant traditional and spiritual value in the Andean region. Traditional practices must be aligned to modern policies.

This article also discusses the German constitutional right to a minimum subsistence level, which is consistent with human dignity. She explains the rationality behind this assimilation and provides context, also demonstrating how doctrine development and research conducted in different geographies can enhance the rights’ scope of protection. Therefore, coca peasants should be acknowledged as victims? The author response to this question from the decent standard of living perspective, offering an interesting approach to this communities’ situation. The author’s literature review and institutional sources detail the ambiguous legal status of coca globally and critique the reward-based system. She left several open windows to continue the investigation about where this situation is taking Colombia and the International community.

The second paper, written by Maxi-Mercedes Jahn, is in particular about the use of glyphosate as the unique pesticide product provided for aerial aspersions. She discusses the forced eradication of more than 800 thousand hectares of coca in Colombia in 10 years, between 2012 and 2022, while discussing the reasons behind an increase in cultivation during this period. Circumstances may be dynamic, but the lack of state presence and for an effective land distribution have been some of the determinants to this problem. In 2019, drug trafficking revenues reached 31 billion of Colombian pesos, or 2.9 percent of the GDP. The business has remained healthy and thriving. Yet, the glyphosate supporters remain firm. Literature review reveals a lack of significant scientific debate on the efficacy of glyphosate as the best method for eradicating coca plantations. The use of glyphosate raises not only environmental concerns but also geopoliti-

cal issues, affecting conflict resolution and peace-building attempts.

Coca cultivation is a viable business, it offers benefits such as more frequent harvests and reliable markets, enabling farmers to improve their income and living conditions in a relatively short term. Unlike other crops, coca does not require formal and legal export market. For example, while 14 kilos of Chontaduro (palm tree fruit) earn about 30 thousand Colombian pesos, a kilo of coca paste can cost 2 million pesos. This disparity highlights why substitution schemes are ineffective when drug revenues far exceed legal alternatives.

The author’s insights into these often-overlooked factors contribute significantly to the discussion. She also addresses the Colombia-FARC peace agreement, which included comprehensive crop substitution policies, but progress has been minimal. It can even be said that increase in coca cultivation directly correlates with unmet agreement commitments. As well as other issues that are highlighted in the paper. The author notes that cartels have developed new methods to produce more cocaine with fewer plants, complicating government efforts. It also discusses the impact of technological advancements and the political complexities behind eradication policies

Back to the glyphosate issue, which it thorough in the paper, it mentioned that glyphosate negatively impacts that are usually not reported in mainstream media, like destroying soil organisms such as bacteria, fungi, and mycorrhizae, which are crucial for soil health and fertility. Farmers have reported adverse effects from glyphosate, including skin irritations that lead to permanent scars and vision problems. Reports also indicate that some farmers were mistakenly targeted during glyphosate applications, leading to the loss of their crops and livelihoods. This discussion underscores how the use of glyphosate, while intended for public health purposes, infringes on human rights and affects the lives of those in the impacted areas.

Finally, the author makes a really interesting survey through the German Basic Law referring a few lessons for the Colombian case. The constitution orders the state to protect natural resources and life through prevention of harm, defense against threats, and risk assessment. The author highlights the balloon effect, linking deforestati-

on, cattle ranching, coca production, violence, and displacement. More interestingly, she describes how glyphosate use exacerbates soil exhaustion and raises agricultural costs due to increased fertilizer and pesticide use. Additionally, she provides compelling information stating that spraying one hectare of coca can cost more than 50 thousand Colombian pesos, suggesting deeper issues, such as the influence of glyphosate producers in the overall transaction.

The author concludes that broader goals of social justice, environmental stewardship, and sustainable rural development are needed. However, the discussion leaves unresolved questions about the environmental impact of glyphosate use. It emphasizes that the relationship between communities and their environment is complex, involving diverse, interdependent processes that go beyond the immediate effects of eradication efforts.

Finally, the third author, Daniel Förster, enlighten his analysis by discussing the USA-Colombia Free Trade Agreement signed in 2007. His analysis is framed through the lens of human rights, offering a fair ground for examining the issue from the German perspective. The paper seeks to propose solutions aimed at improving the living conditions of people in Colombia, reflecting a commitment to addressing both immediate and broader socioeconomic challenges.

The author begins mentioning the potential benefits of industrial-scale coca leaf cultivation emphasizing on the importance of exploring its therapeutic uses and other potential industrial-scale production business dimensions. Economically, it details the dramatic increase in coca leaf prices, from \$0.60 per kg at harvest to \$1,224.61 per kg for the final cocaine product, reflecting a dramatic value transformation through the production chain. While this might benefit some actors in the production chain, the illegal nature of the trade imposes a significant financial burden on the state, which spends more on controlling and eradicating production than it gains. This can be taken as an objective analysis that worth to be read in detail. As a follow up, the author raises concerns about the lack of viable alternatives for coca farmers, suggesting that attempts to replace

coca cultivation with other forms of agriculture often fail and may lead to human rights violations.

Then, the paper outlines Colombia’s institutional structure and the context of its internal conflict, which turned out valuable in particular for a German audience. It connects the rise of guerrilla groups in rural areas during the 1960s with the emergence of paramilitary forces in the 1980s and 1990s, which aimed to eliminate the guerrillas, protect landowners, and dominate the drug trafficking industry. The discussion extends to the peace process, highlighting the political concessions made to guerrilla leaders, including their integration into Congress. This background is crucial for understanding the interplay between political dynamics and coca cultivation policies. It illustrates how the expansion of coca plantations and efforts to replace illicit economies are intertwined with Colombia’s political landscape and peace commitments. The connection shows the relevance of addressing coca cultivation within the larger context of Colombia’s historical and current political challenges.

As a conclusion, the author highlights a critical challenge: “the difficulty lies in the implementation of global resolutions, which tend to be wide, general and future-oriented, aiming to set directions and define common ground”. The FTA holds, nevertheless, substantial untapped potential for informing the peace process and addressing coca cultivation issues in Colombia. As mentioned by the author, there is no a silver bullet or simple solution to the drug trafficking problem, and balancing the coca plant’s cultural significance with global anti-cocaine efforts remains complex. Legal frameworks and international policies have struggled with this dual challenge, and Colombia’s efforts -including military actions and crop substitution aerial or manual- have found significant obstacles.

Ultimately, a comprehensive and integrated approach is necessary to achieve lasting change, reduce coca cultivation, and improve living conditions sustainably. In this chapter, the authors clearly express their intention to incorporate perspectives beyond traditional approaches, encouraging readers to see deeper into the issue. The added value of these studies lies in their interdisciplinary approach, combining insights from law and

public policy with perspectives from nonprofit and non-governmental organizations. Contributing to this chapter are students from the Environmental Campus Birkenfeld at Trier University of Applied Sciences, including those pursuing degrees in law, a master's in law and non-profit and NGO management.



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Affected Human Rights by the destruction of coca plantations

Author: Cara-Maxine Heyd

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1 Introduction

The Coca-plant has been cultivated on a large scale in plantations in some South American countries for almost 100 years. Colombia, for example, is one of the countries in South America with the highest sales of cocaine cultivation. The coca plant, from which cocaine is produced, has been cultivated in Colombia since the 1960s, especially in the more remote areas of the Andes, in order to make progress in the field of medicine. Ever since Albert Niemann produced the drug cocaine from the coca plant in 1860, the cultivation of the coca plant from Colombia has also been used to produce cocaine. When Alberto Sicilia Falcon promoted the mass production of cocaine in the 1980s, Colombia became one of the largest cocaine-producing countries in the world and continues to import cocaine worldwide to this day. With the help of the US government, the "Plan Colombia" was developed, which aims to destroy the plantations and, as a result, to maintain social and economic programs to preserve sources of income. However, the destruction of the plantations still leads to socio-economic, corrupt and violent conflicts to this day, as the drug trade has shifted to other count-

ries and has not really disappeared in Colombia. In addition, the destruction of cocaine plantations can restrict human rights, especially if it is not carried out in accordance with the rule of law and human rights standards.

The following elaboration is based on the human rights of the UDHR (Universal Declaration of Human Rights) and their possible restriction or violation and in the final consideration the prospects in German law.

The Universal Declaration of Human Rights of 1948 is the best-known human rights document and forms the cornerstone of international human rights protection. Before the Second World War, human rights were mainly regulated nationally. The horrors of war led to a rethink. The UN Charter of 1945 instructed the international community to promote human rights for all. The breakthrough came with the adoption of the UDHR by the UN General Assembly in December 1948, following a two-year discussion process. The UDHR is not a legally binding document but has great political and moral significance. It influenced the development of the UN human rights conventions from the 1950s onwards. The Universal Declaration of

Human Rights enshrines fundamental civil, political, and social rights to which every human being should be entitled on the basis of their dignity. In 30 articles, it sets out guarantees of protection for the human person, including the right to life, the prohibition of slavery, torture, and arbitrary detention. It also includes procedural rights such as the right to effective legal remedies as well as traditional civil liberties such as freedom of expression, freedom of religion, guarantee of property and freedom of marriage. In addition, economic, social, and cultural rights are guaranteed, including the right to social security, work, food, health and education. These rights should apply to all people regardless of race, gender, or nationality (UDHR Art. 2), as all people are born free and equal in dignity and rights (UDHR, Art. 1).

In my paper, I will discuss the international human rights of the UDHR and develop arguments for a possible violation of human rights. At the end of my paper, I will look at the facts of the case in terms of the German basic right to a decent subsistence minimum and I will take a closer look at the use of the herbicide glyphosate, as it has caused the greatest damage and is a fundamental problem for current drug policy.

Before WW II, human rights were mainly regulated nationally. The horrors of war led to a rethink. The UN Charter of 1945 instructed the international community to promote human rights for all. The breakthrough came with the adoption of the "Universal Declaration of Human Rights" by the UN General Assembly in December 1948, following a two-year discussion process.

2 Affected universal human rights

2.1 Right to adequate living conditions

"Everyone has the right to a standard of living adequate for health and well-being." This means guaranteeing the basic needs of an individual and their family in the sense of the social subsistence minimum. This includes decent housing, adequate clothing, and food as well as medical treatment.

According to Art. 25 UDHR, these rights include "food, clothing, housing, medical care, necessary services and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood through no fault of their own" (para. 1) as well as the right to special care and assistance for mothers and children (para. 2). Thus, several rights are addressed in one article, which could have been restricted or even violated by the destruction of the plantations (Humanrights.ch, n. D.).

The plantations were to be destroyed in various ways. They were to be destroyed by eradication, aerial fumigation and fighting armed groups.

The right to adequate living conditions may have been restricted to the extent that the local population may lose their livelihoods, resulting in poverty and precarious living conditions. In 2021, plantations of around 103,000 hectares were destroyed (APA, 2022). The farming community of the coca plantations depend on work in coca cultivation to earn a living. Without this income, the population cannot maintain an adequate "standard of living that guarantees health and well-being for themselves and their families". The Colombian state is trying to support alternative crops such as coffee, sugar cane and plantains with the help of financial support, e.g. in the form of subsidies. Other countries, such as the USA with its "International Drug Control and Law Enforcement" aid project, which is also committed to social justice and development cooperation to enable a decent standard of living, also support countries like Colombia in their fight against drugs (Humanrights.ch, n. D.). These projects are not enough for those affected. In the past, farmers have repeatedly had to resort to growing coca in order to survive. Although the cultivation of the coca plant is not completely illegal in Colombia, it is "still" on the UN's prohibited list, as coca leaves are considered

a narcotic (Weigand, 2023). Coca farmers are therefore also in a difficult situation in legal matters (Merkur.de, 2022). On the one hand, the coca growers are very much afraid of being arrested by the state, and on the other hand of having to face even worse consequences from the drug mafia, the cartels or other drug power brokers. The difficulty in winning the war on drugs lies in limiting state resources and enforcing them against the Colombian rulers.

Manual eradication creates a dangerous dynamic on the ground by directly confronting the military and police with coca growers. As one official put it, "The eradication divides the government from the farmers and armed groups." For farmers in remote areas without access to public services, the military's attempt to deprive them of their livelihoods becomes their only experience with the state. As one farmer describes, "The only investment we have experienced is that of the armed forces, which has only brought us pain and sadness. ... They have turned our communities into a war" (Crisis Group, 2021, p. 27).

The farmers have no opportunity to build up a decent standard of living for themselves and their families due to their constant fear of expulsion, arrest, flight or even fear of death (Crisis Group, 2021).

In 2018, the Colombian government under President Duque launched five intensive military operations, known as Zonas Futuro (Future Zones), to pacify conflict-ridden areas and create the basis for economic development. This strategy, which links military operations with future development, harbors risks, especially in areas where farmers depend on illegal harvests. Focusing on the capture of high-ranking members of armed groups can generate as much violence in rural areas as it can prevent it. Killing or arresting commanders leads to power vacuums and internal cleansing but increases violence. The danger to civilians increases when armed forces publicly thank for information, putting the community at risk. It is suggested that Bogotá should rethink the measurement of success of military operations. The current focus on arresting criminal leaders does not contribute to conflict reduction. Military planners should consider the impact on communities, the likelihood of permanent police presence and the risks of power struggles between armed groups. Better planning

is needed to mitigate negative impacts on communities and increase confidence in security forces (Crisis Group, 2021, p. ii).

2.2 Right to work

"The government calls us coca farmers drug dealers, terrorists and guerrillas. They persecute us as if we were the very worst. But we're not bad people, we're doing this out of sheer necessity. How are we supposed to survive? Coca is the only thing that makes money here" (Herrberg, 2021).

The right to work could be restricted to the extent that the workers who worked on the plantations lose their jobs as a result of the destruction of the plantations. It is critical whether the government, which controls the destruction, must ensure that alternative employment opportunities and support are available in order not to violate the right to work. Working on the coca plantations is, or was, legal employment.

Article 23 of the UDHR addresses a variety of work-related entitlements and particularly emphasizes the right to work. Although states cannot enforce this right in court, as judges cannot allocate jobs, the Declaration obliges states to direct their policies towards the prevention of unemployment. It is the responsibility of the state to take active measures to ensure a wage that secures the basic existence of workers and their families. This includes setting a minimum wage and, if necessary, providing supplementary benefits similar to social assistance. However, the actual level of minimum wage and benefits varies greatly and is closely linked to the general standard of living in the country concerned (Humanrights.ch, no. D.).

The Colombian state is therefore not obliged to provide alternative jobs for coca farmers. However, there have already been many organizations and projects to convert the cultivation of the coca plant to an alternative, legal crop. Similarly, countries such as Colombia have been trying for many years to win the war on drugs and overthrow those in power so that the population can live and survive through legal work.

The free choice of occupation of farmers is guaranteed by Art. 23 UDHR, but this does not include the cultivation of illegal substances. Here again, the difficulty lies in weighing up whether the cultivation of the coca plant is illegal or not.

The cultivation of the coca plant is generally permitted for cultural, spiritual, and medicinal purposes. However, this does not include its predominant use, but rather its resale and processing into cocaine. Unfortunately, the majority of coca farmers are forced to pursue this illegal occupation for reasons of survival and fear of death. They are subjected to illegal forced labor – not directly by the Colombian state, but by those in power in Colombia. Indirectly, however, forced labor could be brought about by the state due to the insufficient support for alternative cultivation, the minority of the state military compared to the drug military and the insufficient protection against the consequences if the farmers oppose the drug powers.

2.3 Right to food

The right to work and the right to an adequate standard of living are closely linked to the right to food, as the workers on the plantations lived off their wages. Due to the destruction, this salary is no longer paid, leading to food insecurity and the destruction of livelihoods (Schmeil, 2021). The destruction of the coca plantations and thus of the agricultural fields in the immediate vicinity constitutes a violation of the right to food.

2.4 Right to health and human dignity

The right to health goes in two directions. On the one hand, the right to work and the right to food are continued with the right to health. If the population has no work, there is no money for food. Without food, people fall ill.

Secondly, the area surrounding the plantations is exposed to health risks, as the destruction of the plantations is carried out using the chemical glyphosate, among other things. This chemical has been classified as "possibly carcinogenic" by the WHO, as a result of which the Constitutional Court ruled in 2017 that glyphosate can only be used to destroy coca plantations under strict conditions (Suhner, 2022).

The Colombian government under President Duque planned to resume spraying with glyphosate to combat coca fields. The Constitutional Court had set strict conditions for spraying, based on health and environmental studies, and although the government met some requirements, court cases are expected to delay the resumption until

mid-2021. The government argues in favor of the more cost-effective aerial fumigation, supported by some military officials and the Trump administration. Some U.S. officials claim this is critical to reducing the supply of coca.

The resumption of aerial fumigation is likely to have similar violent effects as in the past. Glyphosate affects not only coca fields, but agriculture, which can lead to tensions between neighbors. The effects on public health are alarming, with documented miscarriages, diarrhea, and skin lesions. In the long term, the World Health Organization considers glyphosate to be a probable carcinogen. Negative effects could trigger a humanitarian crisis, even for farmers without coca cultivation.

2.5 Right to the cultural life

"Coca leaves are part of the culture of indigenous populations in the Andes region and are traditionally used for health and religious purposes. The ban to date is pharmacologically and toxicologically unfounded and has caused ecological and social damage to the affected region" (Weigand, 2023). The coca plant has been part of the culture and tradition of the Colombian and Andean regions in general for centuries and has great spiritual significance. The leaves are used as a medicinal plant, in ceremonies and in rituals in order to have a stronger connection to religion. The coca leaf is also processed and chewed or used in tea to dispel negative energies and purify the body. This is mostly practiced in the community and serves as a means of social interaction. One of the most important uses of the coca leaf is for medicinal purposes. Its leaves are rich in vitamins and minerals, including A, B1, B2, B3, C, E, calcium, phosphorus, iron, sodium as well as potassium. The 14 different alkaloids promote blood circulation and oxygen uptake in the blood and brain. In the high-altitude regions where coca plants thrive, locals use it to relieve altitude sickness, exhaustion and stomach problems. The leaves also have antioxidant properties and support the liver and the health of the stomach and intestines. In the Andean regions, coca is chewed or drunk as a means of increasing stamina and energy at high altitudes, especially above 3,500 meters. This stimulating effect enables people in the Andes to cope with long working hours in difficult conditions (Köppl, 2023).

Among other things, the Colombian Constitutional Court has banned eradication without prior consultation and consent of the community in areas of the substitution program, in national parks and in indigenous reserves, but this only affects a very small proportion of those affected (Crisis Group, 2021), especially as these regulations have not been complied with (Suhner, 2022).

A law was passed to ensure that these regulations are theoretically complied with. Chapter VII of Law 30 of 1986 regulates the procedure for the destruction of confiscated plantations and substances. Article 77 lays down in particular the steps for the identification and measurement of crops and the identification of those responsible by taking samples and forwarding them to the health authorities. Throughout the procedure, the presence of the Ministry of Public Affairs is required before eradication can begin. The producers concerned must obtain confirmation from the health authority that they are dealing with psychoactive plants before the eradication is carried out. A protocol is drawn up and must be signed by the owner or producer. The article emphasizes the importance of guarantees for the presence of the Ministry of State, in particular to ensure compliance with eradication protocols and full respect for human rights. The Antinarcotics Handbook for the Manual Eradication of Illicit Crops by the Police states in Article 7.1: *"At all times, care must be taken to ensure good treatment and respect for all people, their goods and their property, paying particular attention to the regionalisms and cultural specificities characteristic of each territory"* (Arenas and Vergas, 2020).

It is also difficult to distinguish whether coca farmers actually use the coca plant for culture, religion, spiritual rituals and medicine or consume it as a drug. The traditional use of coca leaves aims to exploit the stimulating and energizing properties without extracting the psychoactive component cocaine. The amount of cocaine in the dried leaves is minimal, between 0.1 and 0.8%. This low content prevents the risk of intoxication or addiction (Köppl, 2023). The debate as to whether the coca plant can be used for cultural, religious and spiritual medicinal purposes and whether the coca plant should be removed from the UN list of narcotics is still ongoing in connection with

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Colombia's 10-year drug strategy. Thus, there is no human rights violation of culture here, as the coca plant is still considered a potentially carcinogenic and dangerous drug.

3 Decent existence minimum Art. 1 GG

As a comparison of international human rights within the meaning of the UDHR with German fundamental rights, the focus is probably on the right to a minimum subsistence level in keeping with human dignity.

Small farmers in the Colombian municipality of Tibú have successfully thwarted the violent destruction of their coca plantations by the national army. Over a period of 24 hours, the farmers laid siege to their plantations, arrested 180 military personnel, and then handed them over to the local ombudsman. The action was non-violent and did not escalate. The farmers are demanding an end to the stigmatization and destruction of their fields as well as the consistent implementation of the substitution program for illegal plants. The Catacumbo region in the north-east of Norte de Santander suffers from a lack of local profit participation despite centuries of oil extraction.

The region is characterized by armed conflicts and the influence of paramilitary groups. A report by the Human Rights Ombudsman's Office shows that many residents of Norte de Santander suffer from kidnappings and forced displacement.

General Omar Sepúlveda stigmatized those involved in the resistance as kidnappers and drug traffickers, which was sharply criticized by peasant organizations. The peace agreement concluded in 2016 provides for the voluntary substitution of illegal plantations, but implementation remains inadequate. Instead, the government is planning to spray coca plantations with glyphosate, which poses considerable health risks for the local population and threatens their livelihoods. (Schmeil, 2021)

The Colombian police have temporarily suspended the destruction of coca plantations. Police chief Henry Sanabria emphasized that farmers are considered the weakest link in the drug trade. However, the fight against those behind the drug trade and illegal organizations will continue in order to prosecute people connected to the drug trade.

Alongside Peru and Bolivia, Colombia is one of the world's largest producers of cocaine. Last year, 234,000 hectares of coca plants were cultivated, with the security forces intensifying the destruction of plantations in recent years. In the previous year, 103,000 hectares of coca bushes were destroyed. Various criminal syndicates, splinter groups of the Farc guerrilla organization and the ELN rebel group are active in the drug trade. The cultivation of coca plants is attractive to many farmers due to the higher profits compared to legal agriculture. However, there are reports of farmers being forced by criminal gangs to cultivate coca plants.

According to the circumstances described, the minimum standard of living in accordance with Article 1 in conjunction with Article 20 (1) of the Basic Law could have been violated by the destruction of the coca plantations and the use of glyphosate. In terms of proportionality, it is again difficult to weigh up the interests of the coca farmers against the interests of the general public (also worldwide). In any case, the coca farmers must be identified as people in need of help who are entitled to a decent minimum standard of living. The focus of the elements of proportionality

lies in the necessity, i.e. whether there is a milder means. This brings us back to the failed war on drugs and the drug strategy now being pursued. (Zeit Online, 2022).

4 Conclusion and Looking to the future with the 10-year drug strategy

It is very difficult to assess whether the destruction of coca plantations constitutes a violation of human rights within the meaning of the Universal Declaration of Human Rights. There are restrictions on the existence of the coca population, but these are caused by the cultivation of an illegal plant. In most cases, the coca plant is processed into cocaine and sold. This represents the illegal drug trade. However, the coca farmers are dependent on this work and the drug trade in order to survive. They use the money they earn to create a standard of living that is very low despite the high demand for cocaine. The work on the coca plantations is controlled and monitored by the rulers, the supporters of the drug cartels, so that the coca farmers are subordinate to the Colombian government and the government of these rulers. Weighing up how they can secure their minimum subsistence level, they opt for survival. Although the Colombian state has worked with other countries to develop programs and systems to help coca farmers grow alternative crops on existing plantations, there is a smaller market for these crops. In addition, the safety of the farmers and their families is at risk if they decide not to cultivate the coca plant.

The destruction of these coca plantations is driving families to financial ruin. The plantations are destroyed in the long term, even for alternative crops, by uprooting the plants and spraying them with glyphosate. Nevertheless, if the right to an adequate standard of living is violated, it can be said that although the coca farmers' livelihoods have been destroyed, this could be justified with regard to the cultivation of an illegal drug. In this case, the safety and well-being of the general public is also paramount, as the cultivation of the coca plant means that the population is threatened by the consumption of the drug alone, as well as by the power of the cartels. Although the right to work was also restricted by the destruction, systems for alternative work were made available.

However, the right to health was violated due to the destruction. The use of glyphosate has resulted in many direct serious medical cases that have been proven to have occurred. The health of the population was also indirectly endangered. The plantations on which farmers could have grown alternative crops were poisoned by this chemical, as were agricultural fields in the immediate vicinity.

The coca plant is also considered a medicinal plant by the indigenous population. The destruction of this medicinal plant deprived this population group of the chance of a cure. The coca plant is also a spiritual, cultural and religious plant that is used for rituals and the like. However, the destruction did not violate the right to cultural life, as the coca plant was classified as a potentially carcinogenic illegal drug (America 21, 2022). Whether the coca plant should remain on the UN list of narcotics is currently being debated.

Colombia's problem with coca plantations is not the state and the violation of fundamental rights per se. It is the general war on drugs. The cartels and rulers predominate in these countries and have a greater influence on the population than the government itself. In order to offer the Colombian population a decent standard of living, the war on drugs must be won. Not just in Colombia, but worldwide. Consumption and the sales market must be reduced or cut to a minimum in order to reduce demand and take this power away from those in power. The government is acting in the interests of national security and this is also a justification in Colombia.

In October 2023, a new 10-year drug strategy with corresponding draft legislation was presented in this regard. The aim of the strategy is to end the war on drugs and introduce reforms that will bring about long-term and sustainable change. The strategy is to be applied internationally, as this will only work in cooperation with all countries involved.



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Glyphosat use in line with Colombia's peace policy

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1 Introduction

In recent years, the use of glyphosate, a widely used herbicide, has become a contentious issue in Colombia. Introduced in the 1970s, glyphosate is globally recognized for its effectiveness in the agricultural sector. Originally employed as a weed killer in agriculture, in Colombia, glyphosate has assumed a specific and controversial role in the nation's fight against illegal drug cultivation. It is primarily used in Colombia to combat illegal coca, playing a key role in the battle against drug trafficking. However, the use of glyphosate in Colombia, particularly concerning environmental and health risks, has sparked controversy both nationally and internationally.

Between 2012 and 2022, 843,905.6 hectares of coca in Colombia were forcibly eradicated, yet the cultivation area for this period increased by 327%. In 2019 alone, the revenues generated from drug trafficking amounted to 31 billion pesos, equating to 2.9% of the GDP. (Minjusticia, 2023)

In stark contrast to its standard agricultural application on agro-industrial fields, the Colombian fumigation program employs glyphosate in a

markedly different manner. It disperses high concentrations of this herbicide over residential areas, executing this task from significant altitudes spanning dozens or even hundreds of meters. This method, deviating from conventional practices, has raised substantial concerns regarding its impact on both the environment and public health. (WOLA, 2016)

This complex situation prompts a critical situation examination of several underlying issues. Firstly, it brings to light the challenge of managing illegal drug cultivation, a task that involves navigating a myriad of socio-political nuances and ethical considerations. Secondly, it underscores the role of agricultural chemicals like glyphosate in contemporary conflict zones – a role that extends beyond mere agricultural implications to encompass broader environmental and geopolitical dimensions. The employment of such chemicals in these contexts is not just a matter of agricultural policy but becomes a significant factor in the discourse on conflict resolution and peacebuilding.

The deep tensions between the need to effectively combat drug cultivation and the desire

to develop sustainable and equitable solutions for Colombia's agricultural communities will be explored, highlighting the complex balance required to address both. It also discusses the international context of the debate around glyphosate, including global concerns about environmental protection, human rights, and sustainable agriculture that influence Colombian policy and practice in this area. This sets the framework for an analysis of the multiple challenges and considerations associated with glyphosate use in Colombia and lays the ground for a more in-depth view, which deals with coca cultivation, peace policy, impacts, the German perspective, solutions with a view to Thailand, and current developments in Colombia.

2 Coca Cultivation

For many farmers in the affected communities, cultivating coca plants is more than just an agricultural activity; it is often a fundamental means of survival. These communities, in comparison to the national average, face significantly higher levels of poverty. They suffer from low tax revenues, limited connectivity to urban centers, and a lack of institutions that support the rural populace, as identified by Zuleta in 2017. (Minjusticia, 2023)

The annual increase in cocaine production in Colombia is primarily attributed to the loss of territorial control by the state. In many rural areas, the Colombian government's presence is minimal.

The annual increase in cocaine production in Colombia is primarily attributed to the loss of territorial control by the state. In many rural areas, the Colombian government's presence is minimal. Hundreds of villages lack military or police stations, allowing drug trafficking to thrive with little interference.

Basic facilities like schools, roads, and hospitals are often absent in the country's remote regions. Furthermore, hundreds of villages lack military or police stations, allowing drug trafficking to thrive with little interference. (Karasek, 2021)

Approximately 49% of the cultivation areas are situated in special administrative zones: 19% on land belonging to Afro-Colombian communities, 15% in forest reserves (as per Law 2), 10% in indigenous reserves, and 5% in national natural parks. (Minjusticia, 2023) The fact that a significant portion of the cultivation areas is in these special zones highlights the complexity of the issue. It underscores the overlapping ecological, social, and ethnic dimensions that must be considered in seeking sustainable solutions for coca cultivation and the associated poverty.

The COVID-19 pandemic, with its lockdowns and supply chain disruptions, presented an additional challenge for farmers in rural regions. For many, coca cultivation became their sole remaining means to earn income to support their families. (Abé, 2022)

In areas lacking adequate infrastructure, farmers often have to transport their products in a laborious manner, a process that is time-consuming and yields only limited financial returns. For example, 14 kilos of Chontaduro, a small orange fruit of the peach palm, earns about 30,000 pesos, approximately seven euros. In contrast, a kilo of coca paste can fetch two million pesos, roughly 500 euros. (Schaefer, no D.)

The benefits of coca cultivation, such as more frequent planting and harvesting cycles, along with almost guaranteed markets and buyers, have enabled farmers to earn a modest income and improve their living conditions. Unlike other crops, coca can be sold directly and does not require exportation. This aspect of coca cultivation, combined with the economic incentives it offers, makes it a uniquely attractive option for farmers struggling in impoverished and isolated areas. (Minjusticia, 2023)

3 Peace Policy

The use of glyphosate to combat coca cultivation has a long history. In 2015, its use was halted by the government of Juan Manuel Santos, following the World Health Organization's (WHO) classification of glyphosate as a possible carcinogen. (Suhner, 2022)

The subsequent historic peace treaty of 2016 between the Colombian government and the Revolutionary Armed Forces of Colombia (FARC), playing a key role in the fight against illegal drug trafficking, included measures to shift cultivation practices. This peace treaty ended over 50 years of armed conflict in Colombia, which left a devastating toll of 260,000 deaths and about eight million refugees and internally displaced persons. The conflict was primarily characterized by clashes between leftist guerrilla groups and the Colombian military. The FARC emerged in May 1964 from members of the Colombian Communist Party and a peasant movement. They are known as the largest Guerrilla organization in Latin America. (Weismann, 2022)

This program aimed to transition approximately 200,000 families who were involved in coca cultivation to engage in legal activities. The main goal was to sever the connections between the insurgency and drug trafficking and to strengthen government presence in areas plagued by crime and poverty. Despite these intentions, few of these promises were realized. During the peace talks, coca cultivation even rose to record levels, partly in the hope that the agreement would benefit farmers who switched to coca cultivation. However, as time progressed, the situation worsened when the government struggled to fulfill its commitments. (Crisis Group, 2021)

The subsequent historic peace treaty of 2016 between the Colombian government and the FARC, playing a key role in the fight against illegal drug trafficking. This peace treaty ended over 50 years of armed conflict in Colombia, which left a devastating toll of 260,000 deaths and about 8 million refugees and internally displaced persons.

In 2017, the Colombian Constitutional Court concluded in its T-236 judgment that there are indications glyphosate is a toxic substance that can be carcinogenic or otherwise harmful to health, depending on exposure. This judgment also set the requirements that must be met before the herbicide can be used for aerial eradication of illegal crops. In 2019, the Constitutional Court decided in its ruling 387 that the government must prioritize voluntary substitution of illegal crops over forced eradication. The Court also clarified that aerial spraying of glyphosate should be used as a last resort and only permissible if both voluntary substitution and mechanical destruction have been unsuccessful. In addition, the Constitutional Court required the Colombian government to make a decision on the resumption of glyphosate aerial spraying as part of point 4 of the peace agreement signed in 2016 with the armed group FARC-EP. (Amnesty International, 2021)

President Santos allowed manual spraying in January 2017, leading to protests by farmers who signed up for replacement programs. Especially in the regions of Catatumbo, Nariño, and Putumayo, this practice was carried out by the military. Small farmers reported that the army did not consider whether these areas were intended for replacement programs. (Ludwig, 2017)

After the election of the new President Duque on June 17 of 2018, the new government announced that glyphosate would be used again and become fully part of the peace policy. The new strategy also includes the use of drones to reduce the use of glyphosate and potential adverse effects on human health, such as increased occurrences of spontaneous abortions, skin diseases, and respiratory diseases. (Idrovo and Rodríguez-Villamizar, 2018)

The previous government failed to fulfill the commitments set out in the agreement. The government promised farmers subsidies if they replaced coca plants with cocoa, bananas, or coffee. Only the responsible authority was underfunded and unable to pay the subsidies. (Karasek, 2021)

The concerns of coca farmers remained unaddressed, and many were denied the opportunity to participate in government programs. The peace treaty did not provide financial support for all farmers. (Baskici, 2022)

When conservative Iván Duque became President in 2018, coca cultivation had increased to 171,000 hectares – a record high. Facing pressure from the USA, Duque committed to reducing cultivation, with a target of halving it by 2023. So far, the government has managed to reduce it by seven percent till 2021. This reduction has been achieved partly through programs offering farmers alternative crops, but mainly through the destruction of plantations by soldiers and special forces, a laborious process done by hand. Meanwhile, cartels have adopted new techniques to produce more cocaine with fewer coca plants, effectively undermining the government's efforts. (Gurk, 2021)

The claims about the success of government initiatives are based on the government's own statements, raising doubts about whether these statistics accurately reflect the actual situation in the affected areas. This could explain the sometimes contradictory data on cocaine cultivation in Colombia. According to the Colombian government's figures, the cultivation area decreased by seven percent in 2020, from 154,000 hectares in 2019 to 143,000 hectares. In contrast, the Office of National Drug Control Policy (ONDCP) of the White House reported an almost 15 percent increase in cultivation areas in the same year. In a press release from June 2021, the government of Iván Duque announced that both statistical groups would now review the data to standardize and "harmonize" future measurements. (Schaefer, no D.)

After the measures were not sufficiently successful, Colombia allowed the use of glyphosate from the air to eradicate prohibited crops for the first time in 2021. (Amnesty International, 2021)

The question remains why the government wants to use the potentially health-hazardous total herbicide glyphosate from the air again when the substitution programs have shown great success? (Schaefer, no D.)

4 Consequences

Aerial fumigation, primarily conducted in primary and secondary forest areas, impact the surrounding regions characterized by high biodiversity. The dispersal of glyphosate particles can reach up to three kilometers, depending on wind conditions, affecting not just the target areas but also nearby

forested areas, water sources, and the local people and wildlife living there. (Rasolt, 2019)

Research has shown that the targeted eradication efforts in Colombia had unintended ecological consequences. Coca cultivation shifted to ecologically significant areas, which, due to their remote location and lack of state control, were attractive to criminal groups. This process, known as the "balloon effect", led to increased deforestation and an expansion of agricultural use. (Minjusticia, 2023)

Rather than being eradicated by fumigation, coca production spread to more remote parts of the country, from the fertile southern regions to the Pacific coast and along the Venezuelan border. The plants reached legally protected areas such as natural parks and indigenous reserves, leading to increased deforestation and unpredictable ecological damage. These damages were further exacerbated by the continued use of glyphosate. In the affected rainforests, the herbicide causes the death of native flora, contaminates water sources, and has adverse effects on the health of the local wildlife and resident communities. (Rasolt, 2019)

Glyphosate negatively affects a variety of soil organisms, including bacteria, fungi, and mycorrhizae, which play a vital role in soil structure formation and are crucial for soil fertility. (GLOBAL 2000, no D.)

The impacts are particularly long-lasting because temperate ecosystems need more time to regenerate. This has damaged agriculture and led to food insecurity. Even targeted ground spraying has ecological consequences, as the herbicide does not only remain in the soil but can also spread to adjacent areas. Through rainwater and atmospheric transport, it can reach neighboring fields, streams, rivers, and lakes. Moreover, the fumigation have had impacts on the human rights of farmers and ethnic peoples, recognized by the Council of State, the Constitutional Court, and the inter-American system. (Minjusticia, 2023)

Numerous farmers have reported negative experiences with the use of glyphosate, describing skin irritations leading to permanent white scars and skin and vision problems following glyphosate application. (Nayar, 2020)

According to the WHO's International Agency for Research on Cancer, glyphosate has genotoxic

properties, meaning it can damage DNA, with this effect occurring even in the smallest amounts. Additionally, glyphosate influences hormonal processes in the human body, leading to various health problems. These include malformations, an increased risk of diabetes, hormone-related cancers, cardi-ovascular complaints, and other health impairments, especially in newborns. (GLOBAL 2000, no D.)

Reports indicate that farmers were forced to relocate because pilots mistakenly targeted their plants as coca shrubs, thus losing their livelihood. (Nayar, 2020)

5 The German Perspective

The situation in Colombia, with its potentially severe impacts, raises critical questions about the adherence to and protection of fundamental human rights. These issues can also be examined in the context of the Basic Law for the Federal Republic of Germany (BLFRG).

According to Article 20a of the German Basic Law, the state is obligated, for the sake of future generations, to protect both the natural foundations of life and animals. This obligation is carried out within the framework of the constitution and encompasses legislative measures, their implementation by the executive branch, and the observance and application of these laws by the judiciary. (BLFRG, 2022, Art. 20a GG)

Environmental protection under the German Basic Law includes several key aspects: firstly, the prevention of harmful interventions in the environment; secondly, the defense against immediate threats to ecological integrity; and thirdly, the implementation of preventive measures against future ecological risks. An integral part of environmental protection is also the preservation of biological diversity, including ensuring a natural habitat for endangered animal and plant species. Article 20a does not have absolute precedence over other interests but must be balanced with other constitutional goods and principles in the event of a conflict. The importance of the climate protection obligation in the balancing process continues to increase with the progression of climate change. (Bundesverfassungsgericht, 2021) This necessitates a careful balancing of the state objectives under Article 20a with other constitu-

tional goods and values of the Basic Law, especially in practical concordance. Article 20a does not contain any specific weighting factors. The Constitutional Commission explicitly refrained from giving environmental protection an explicit priority over other constitutional goods and principles. In ordinary law, the legislature could stipulate that securing natural life foundations should have priority over other concerns in certain cases. (Bundesverfassungsgericht, 2021)

The use of glyphosate has been identified as a clear ecological intervention by the government in the environment. In Germany, it has been proven that the use of this herbicide has an impact. The re-authorization of glyphosate divides opinions, and its environmental impacts are strongly debated. The broad-spectrum herbicide achieves the destruction not only of the intended plants but all non-resistant plants. The use of glyphosate in the fight against illegal coca cultivation must adequately support Colombia's state goal of ensuring the safety of the population in the fight against drugs. In Germany, it is known that widespread application leads to a reduction of field weeds and grasses, resulting in a loss of significant food sources and habitats. This contributes significantly to the decline in biological diversity. With the disappearance of these plants, many pollinator species that depend on them are also lost. (NABU, no D. Moreover, the eradication of cultivation areas in Colombia causes a balloon effect, leading to more deforestation.

On July 6, 2023, the European Food Safety Authority (EFSA) submitted its report on the risk assessment of glyphosate to the member states and the European Commission. Although EFSA identified no unacceptable risks in the use of the agent, data gaps in several areas were identified. For example, EFSA could not conclusively clarify questions regarding nutritional risks to consumers and the assessment of risks to aquatic plants. Regarding species protection, the available information did not allow for definitive conclusions. (BMEL, 2023)

In cases of scientific uncertainty about environmentally relevant causal relationships, the special duty of care imposed by Article 20a of the Basic Law, also for the benefit of future generations, includes taking into account reliable indica-

tions of the possibility of serious or irreversible impairments. (Bundesverfassungsgericht, 2021)

Glyphosate can disrupt the nutrient uptake of crops in the soil, often leading to increased use of fertilizers. This heightened fertilization can weaken the plants, increase their susceptibility to pests, and promote the need for additional pesticides. (NABU, no D.)

This can lead to higher costs for fertilizers and minimize crop yields. Furthermore, the eradication of cultivation areas in Colombia creates a balloon effect, leading to more deforestation to establish new cultivation areas. Although the production of the narcotic cocaine involves environmental pollution through the use of harmful chemicals and improper disposal, farmers are usually not responsible for processing the plants themselves but sell them on.

Article 2, Paragraph 2, Sentence 1 of the Basic Law, which guarantees the protection of life and physical integrity, also includes protection against environmental impairments, regardless of their source or cause. This gives rise to a state duty to protect, which also includes protecting life and health from the risks of climate change. (BLFRG, 2022, Art. 2 (2), S. 1 GG)

Regarding the use of glyphosate in Colombia, this means that the state is obliged to take measures to protect the population from potential health risks posed by glyphosate. As already mentioned in the consequences, health damage has been identified from contact with the herbicide. Furthermore, since 2015, WHO has recognized that the agent is classified as carcinogenic. Due to the use by aircraft and the dispersion by the wind, it cannot be ensured that residents will not come into direct contact with the agent. The objective legal protection mandate under Article 20a includes the necessity to handle natural life foundations carefully and to leave them in a condition for future generations that allows them to continue preserving these foundations without resorting to radical self-restraint. This approach underscores the importance of sustainable environmental stewardship, recognizing that current actions have long-term implications not only on the ecological health of the planet, but also on the well-being of future generations. (Bundesverfassungsgericht, 2021)

Additionally, in relation to securing a livelihood, which is set forth in Article 20 in conjunction with Article 1 of the German Basic Law, there are significant concerns regarding the use of glyphosate. (BLFRG, 2022, Art. 20, Art. 1 GG) The destruction of plantations usually demolishes the sole existential foundation of many farming families. As known from past experiences, state subsidies are sometimes not fulfilled, leaving vital income for these families unsecured. Moreover, it cannot be guaranteed that only coca plantations are targeted during aerial glyphosate application; there have been instances in the past where other plants were mistakenly affected. Expecting farmers to destroy their crops in areas where no other agricultural products are sufficient to secure their livelihoods is unrealistic. The forced eradication in these regions only leads to the impoverishment of farmers and an increase in their mistrust towards the state. (Crisis Group, 2021)

According to a study by the Universidad de los Andes, glyphosate is highly inefficient in combating coca cultivation. To completely destroy one hectare of coca plants, the area must be sprayed up to 32 times, incurring costs of approximately 57,150 US dollars. This inefficiency not only questions the practicality of using glyphosate but also highlights the economic burden it places on the efforts to control illegal cultivation. (Suhner, 2020)

When considering the violation of fundamental rights, there seems to be a lack of proportionality between the purpose of the government's actions and their implementation. The use of glyphosate, particularly in aerial spraying, poses significant risks to both the environment and human health. The collateral damage of such actions not only includes the destruction of non-target plant species and potential harm to animal life but also risks to human communities living in and around these areas. The possibility of glyphosate contaminating water sources and soil further exacerbates these concerns, potentially leading to long-term environmental and health issues.

6 Solution Approaches with a view to Thailand

European allies, who played a crucial role in promoting the peace treaty of 2016, should reassess the impacts of the government's strategy on coca

The eradication of opium poppy cultivation in Thailand began only after several years of efforts to establish alternative livelihoods, typically negotiating with local communities through a joint committee of government and village representatives to assess whether sufficient legal income was available.

cultivation in terms of solidifying peace in Colombia. Drawing from experiences of other successful crop substitution projects, such as the 30-year initiative to eliminate opium poppy cultivation in Thailand, could be beneficial. The European Union could utilize these insights to assist Colombia in developing a more effective approach to transforming rural areas. (Crisis Group, 2021)

In Thailand, several key factors contributed to the successful combat against drug cultivation. The policy of eradicating drug crops was suspended during the counter-insurgency efforts and for several years following the end of the conflict. During this period, alternative livelihood programs were initiated in the opium cultivation areas. Eradication efforts were resumed only after these alternative programs had generated sufficient income for the opium farmers. This approach was distinct from many international drug control strategies, which often undertake eradication concurrently or even before introducing alternative programs. The eradication of opium poppy cultivation began only after several years of efforts to establish alternative livelihoods, typically negotiating with local communities through a joint committee of government and village representatives to assess whether sufficient legal income was available. The strategies for creating alternative livelihoods were designed as comprehensive rural development initiatives, focusing not just on replacing income but also on enhancing human capital and reducing the social and political marginalization

of ethnic minorities who traditionally cultivated opium poppy. Development workers committed to long-term engagement with individual poppy farming families to improve their situations. Initial simplistic approaches that sought replacement crops—like onions, garlic, cabbage, or more valuable cash crops like apricots—were gradually supplemented by a focus on broader socioeconomic development and human capital enhancement. This included improving infrastructure connectivity, developing value chains, and expanding access to healthcare and education for villages engaged in opium production. (Felbab-Brown, 2017)

The Colombian government must prioritize infrastructural development, enabling farmers to transport and sell their crops more effectively. Improved infrastructure would also facilitate better communication and connectivity among different stakeholders. These efforts encompass ecological, social, and ethnic dimensions, all intricately intertwined, necessitating careful consideration in the search for sustainable solutions to coca cultivation and the associated poverty. The approach should encompass more than just the economic realities; it must also include environmental protection, recognition of indigenous peoples' rights, and empowerment of local communities. This comprehensive strategy requires a nuanced understanding of the multifaceted nature of the issue, recognizing that addressing the challenge of coca cultivation involves more than just changing agricultural practices. It requires a holistic approach that respects and integrates the diverse needs and perspectives of all those affected, fostering an environment conducive to long-term sustainable change.

7 Current Developments in Colombia

Since November, the National Liberation Army of Colombia (Ejército de Liberación Nacional/ ELN) and Colombia's first left-leaning government have initiated peace talks, with four rounds of negotiations already completed. An unprecedented level of public involvement is being encouraged in the ongoing peace process to secure a lasting peace agreement. This agreement, known as the "Great National Agreement" (Gran Acuerdo Nacional), is expected to be finalized by May 2025. (Meyer, 2023)

Colombia's new president, Gustavo Petro, has introduced significant changes in drug policy by banning the use of glyphosate and the forced destruction of coca plantations. The primary objective of this measure is to shift the focus of small farmers away from criminal drug traffickers and to restore community trust in the government. The government is relying on a rural development program that envisions a gradual transition from coca cultivation, supported by public funds allocated for affected coca regions. (Baskici, 2022)

Colombia's new Minister of Justice, Néstor Osuna, has emphasized that cocaine will remain illegal in the country. However, farmers might receive licenses to grow coca leaves for medicinal purposes. Osuna confirms that in the future, the police and judiciary will focus more on combating drug cartels and businesses involved in money laundering for drug traffickers, rather than targeting farmers. (Gustavo, 2022)

The objectives include reducing 90,000 hectares of illegal coca cultivation by 2026, which will result in a 43% decrease in cocaine production and the elimination of 11.823 billion doses of cocaine from the market. Of the 90,000 hectares, 69,000 hectares will be voluntarily eradicated to promote the transition to legal activities, while 23,000 hectares will be forcibly removed from high-yield industrial crops. This will have significant economic impacts, causing losses between 55 and 86 trillion US dollars due to illegal financial flows. This policy will enable about 50,000 of the nearly 115,000 families currently reliant on illegal coca to transition to legal economic activities. (Minjusticia, 2023)

Eventually, a challenge is encountered due to the initiative's limitations in encompassing and providing support to all families. It is yet to be determined whether this will serve as an effective measure to alleviate the situation.

8 Conclusion

Opinions suggest that the new agreement in Colombia may not spark a revolutionary change, primarily because it does not introduce land reform or significantly alter the role of security forces. This agreement could represent an initial step towards forging meaningful cooperation with communities that have traditionally had minimal interaction

with the government. This collaborative effort is crucial in addressing their issues of isolation, poverty, insecure land tenure, reliance on illicit economies, and insufficient protection. (WOLA, 2016)

The recent years have seen a surge in coca cultivation in Colombia, reaching unprecedented levels, coupled with an escalation in conflicts involving armed groups. This situation has elicited increased pressure from both Bogotá and Washington to eradicate coca cultivation. The dominant belief is that eliminating or poisoning coca plants will cut off the roots of criminal activities and violence. Contrary to this belief, the state's aggressive eradication measures often exacerbate the impoverishment of rural communities in Colombia and cement their antipathy towards a government whose interventions are predominantly punitive. Farmers, ensnared in a dangerous limbo among authorities, narcotics traffickers, and violent factions, disproportionately endure the consequences of these policies. As the most vulnerable segment in the supply chain, they face dire repercussions for any non-compliance. (Crisis Group, 2021)

The implementation of the new peace plan necessitates not only the execution of farmer subsidies but also their consistent application. It is imperative to identify and establish viable alternatives to coca cultivation, enabling farmers to sustain their livelihoods and break free from the cycle of dependency on illicit crops.

A broader and more profound approach is required. The focus should shift from targeting individuals who are constrained by circumstances beyond their control to addressing systemic issues. The Colombian government's strategy should pivot from short-term eradication tactics to investing in long-term programs that ensure the livelihoods of rural communities. It is essential to provide comprehensive subsidy methods accessible to all farmers, fostering an environment where they are not just passive recipients of aid but active participants in shaping their futures.

Furthermore, establishing robust infrastructure is vital for facilitating effective communication between the government and rural communities. This infrastructure would empower farmers to independently market their products, thereby enhancing their economic autonomy. It would also

play a significant role in bridging the gap between remote areas and the central government, fostering a sense of inclusion and participation among rural populations.

To effectively address the multifaceted social, economic, and ecological challenges posed by coca cultivation, a holistic approach is needed. This approach calls for concerted efforts and collaboration among governments, international organizations, and local communities. Only through such collective endeavors can sustainable solutions be found that not only mitigate the issues surrounding coca cultivation but also significantly improve the living conditions of the farmers involved. This comprehensive strategy would contribute to a more balanced and equitable development in Colombia, aligning with broader goals of peace, social justice, and environmental sustainability.

In essence, the use of glyphosate in Colombia, particularly in the context of the government's aerial fumigation program, is a matter of profound complexity. It encapsulates a plethora of concerns ranging from immediate public health risks to long-term environmental sustainability, from the intricacies of national security policy to the broader global discourse on human rights and environmental ethics. Addressing these issues requires a nuanced, multi-faceted approach that balances the immediate demands of drug eradication with the overarching objectives of social justice, environmental stewardship, and sustainable rural development.



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Coca Cultivation in Colombian Economy – Considering the 2007 US-Colombian Free Trade Agreement

Author: Daniel Förster

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1 Introduction

According to the overarching theme *Should something happen somewhere else that we don't want to have here?*, this research paper deals with the extended question *How does the 2007 free trade agreement between Colombia and the USA affect the situation in Colombia?*. Focusing on the aspect of coca cultivation this paper is framed by the question of projecting the situation in Colombia onto the situation in Germany. Universal human rights are the unifying force between Colombia in Latin America and Germany in Central Europe. Through the United Nations Declaration, these rights have universal validity regardless of national or ethnic affiliation. (United Nations, no D.) These rights apply to all countries of the world, including Colombia. The situation of the population regarding the economic and ethical components is illuminated on the basis of coca cultivation. Starting with the

topic of coca cultivation, the challenges and interests by groups of people involved are described. The Colombian economy is then examined in order to classify the importance of this topic. The topic of the "free market" is a very relevant one, particularly regarding the economic component and can be supported by free trade agreements. This means that the domestic economy is not only restricted to its own sales market without regulation but is also largely extended to other partner countries. In terms of market liberalization, this would also be relevant for coca distribution. Thus, opening to other markets at the direct level is an export opportunity, but also at the indirect level. Exports can also be expanded via third countries. However, national governments are also responsible for this process. Therefore, this paper also explains the role of Colombian politics in coca cultivation, as it has a significant role in the cultivation

and trade of the coca plant as well as in external economic relations. Furthermore, the paper attempts to construct a possible solution to improve the living situation of the people in Colombia. The factors of the economy, politics, foreign policy and the relationships between the individual actors are considered in order to arrive at a solution that is as balanced as possible, taking into account the norms of human rights.

2 Coca Cultivation

The first section describes the challenges and individual interest groups involved in the cultivation of the coca plant. This is followed by a description of the effects resulting from cultivation, with a distinction made between the social, economic and ecological aspects.

2.1 Social Impact

This section covers the effects the cultivation of the coca plant has on the population in Colombia. The first impact is in the workplace. As coca production is an agricultural industry, it is traditionally associated with large amounts of manual labor. This sector therefore has a positive impact for society, as it generates jobs. As a result, employment opportunities are created that require little to no education, creating a viable source of income is available for many inhabitants. This is an opportunity for partial independence, especially for those who are not gainfully employed. This area would be a possible source of income

As coca production is an agricultural industry, it is traditionally associated with large amounts of manual labor. As a result, employment opportunities are created that require little to no education, creating a viable source of income is available for many inhabitants.

for 11% of the population. (Statista, 2022) Thus, people can organize their lives more freely and can therefore participate better in life.

In addition to the social aspect of life involvement, there is also a social effect of spiritual benefit which has a long traditional use in South American culture. The pure leaves of the coca plant, administered as tea or chewed, are traditionally used for spiritual reasons. (Gustafson, 2010) The focus is on the hallucinatory effect and the trance-like states induced. In addition to the spiritual effect, which is still used in indigenous circles today, the medicinal effect also plays a role. (Biondich and Joslin, 2016) It is traditionally used to fight cancer, stress and hunger. The benefits against stress in particular are generated by a temperature-regulating effect, although it is not known exactly how this is generated. (Goldstein, et al., 2009) It is also traditionally used to counteract the symptoms of altitude sickness. (Bauer, 2019) As part of its spiritual effect, it also shapes and influences social groups.

However, the cultivation of coca also has negative effects on society. For example, the financial interests of political groups cause divisions in society. (International Crisis Group, 2021) Additionally, the large financial profit from production and distribution, which will be explained later, creates tensions in society. These civil society groups form their outgrowths on both the left and right of the political spectrum. For example, groups such as the FARC, Fuerzas Armadas Revolucionarias de Colombia, operate in the left-wing political sphere and groups such as the AUC, Auto-defensas Unidas de Colombia, in the right-wing political sphere. (Felbab-Brown, 2005) In the following chapters, these constellations will be placed more precisely within the construct of coca cultivation.

2.2 Economic Impact

The following section delves into the intricate economic dynamics surrounding coca cultivation. It meticulously examines not only the intrinsic value generated within the cultivation process but also the subsequent value generated in foreign markets. However, the value added from the actual cultivation of the coca plant to the financially valuable cocaine is explained first.

In the beginning, the production of cocaine, a product of the coca plant, is described. It is assumed that there is suitable land available for agriculture. The coca plant grows on this land and yields a harvest. Value creation turns out to be extremely lucrative and financially rewarding. For understanding the process, the steps for value creation are as follows:

1. The coca leaf serves as the basic material. This is then processed into a coca paste.
2. This paste is then processed further until it finally becomes cocaine base paste.
3. It is the direct precursor to the subsequent final product cocaine hydrochloride, better known as cocaine.
4. Very profitable value-added processes are carried out in phases via these steps, which are carried out by various individual players or a single player. In this way, each step has its own value chain with its own beneficiaries.

Then, following, the first value creation process starts with the farmer, who cultivates the perennial shrubs. As this can usually be done for many years with the same shrubs, it can be assumed that only the yields are considered. The prices for one kilogram of the corresponding component are assumed in order to be able to establish comparability with normal quantities. In the beginning, the starting product, the coca leaf, costs \$0.60 USD per kg. In the next step, the value increases by 91,108%, from \$0.60 USD per kg of coca leaves to \$547.25 USD per kg for the coca leaf paste. This enormous increase leads to a significant enrichment of individual groups of people. This enrichment continues with the processing of the base paste for cocaine. At this point, however, there is only a very small increase in value added of 19%, with 1 kg of this base paste costing \$651.18 USD. Taking the product to its final form, cocaine hydro-

chloride, creates a further increase of 88%, making 1 kg of cocaine in Colombia cost \$1,224.61 USD. Incentives to trade in this commodity are also set in this section of the value chain. Additionally, it should be mentioned that this value creation mechanism is carried out illegally. (Statista, 2022) This value creation, coupled with the high production rate of 783 metric tons in 2022, arouses appetite among target groups and value drivers. Due to the fact that the production and sale of cocaine is also illegal in Colombia, the state does not receive any tax revenue from it. This can lead to a deficit in the performance of state functions. However, the value added also provides benefits for the groups involved, that they have a source of income, which in turn has a positive effect on economic performance. However, it is important not to forget who or which groups are involved in the income. For example, left-wing groups such as the FARC use the income from the coca business to finance projects for the general public. (Felbab-Brown, 2005) Of course, it should be noted that this is not done in cooperation with the government, but under its own para-military leadership. This creates a para-military structure that exists parallel to the recognized structures.

2.3 Ecological Impact

The following section analyzes the ecological impact and consequences of agriculture using the coca plant. In Colombia, 207,000 km² are used for the cultivation of coca, which corresponds to around 18% of the country's land area. (Statista, 2023) The area used for the agricultural use of the plant is mainly located in protected nature reserves. This may be due to general illegality and cultivation by para-military groups, and is accompanied by the deforestation of natural areas of rainforest. This results in a loss of biodiversity, which adapts to the natural conditions of the forest. This type of management can be traced back to the FARC groups. However, projects by the government in cooperation with the society shows a trend towards converting agricultural land into land for livestock farming. This is then controlled by the state but encroaches even more strongly on the areas that should be protected. (Murillo-Sandoval, et al., 2023) Together with the associated monoculture, this has negative consequences for

the environment. These include the deterioration of soil quality and the scarcity of drinking water. The deterioration in soil quality is often due to the one-dimensional natural demand for nutrients and the scarcity of drinking water resulting from the pollution of groundwater, which is caused by the increased use of pesticides and fungicides. (Puri et. al., 2023)

3 Economic Situation

The following section focuses on Colombia's economic situation to illustrate the importance of coca value creation. The GDP, gross domestic product, is the main indicator of economic success. It can be used as an indicator of performance, i.e. the end products and services produced within a time period. This value can be used to evaluate a country's economy and compare it with other countries or groups of countries. However, it should be noted that the results shown by GDP are purely economic in nature and do not include factors such as society or the environment, it is therefore a purely economic projection. (Callen and Sarwat, no D.)

Colombia's GDP in 2022 was \$6,624 USD per capita, which is below the average for all countries in Latin America and the Caribbean. In this average, it is \$10,344 USD per capita, which corresponds to a higher level of 56.16%. In relation to this, Brazil and Mexico in particular raise this average level of GDP in Latin America and Caribbean. (World Bank, no D.) The sector distribution of GDP has also seen an increase in the share of agricultural production in recent years, which is in line with the trend in this region. From 2012 to 2022, this rose almost continuously from 5.58% to 8.29%. (Statista, 2023) This puts it on average 2% above the agricultural GDP shares of Latin America and the Caribbean. (Statista, 2022) Colombia's average income is \$6,510 USD per capita, which is around a quarter below the regional average income. (Statista, 2022) The country therefore appears to operate below the regional average in economic terms. However, against the background of the high profitability on which coca value creation is based, this calls the financial distribution into question.

The Gini coefficient, which assesses the income distribution of private households according to their distribution situation, is used for that apprai-

sal. It shows what percentage of the population receives what share of income. A society is divided into parts and the corresponding income amounts are assigned to them; two extremes of distribution are assumed as limits. One extreme represents total equality, which assigns the value 0 to the Gini coefficient; it is assumed that every participant in society receives the same share of income. The other extreme represents total inequality, which assigns a value of 1 to the Gini coefficient. In this case, it is assumed that one person receives the entire income and all other members of society receive no income. In reality, the values 0 and 1 cannot be assigned in the income distribution equation. For practicability, the Gini coefficient for the income range is defined on a scale of 0 to 100. According to this finding, the Gini coefficient is suitable both for the consideration of an individual state to evaluate the national distribution and equity policy, as well as for comparison with other states. (Office for National Statistics, 2022)

The Gini coefficient for Colombia is 54.2, making it the highest in Latin America. (UNDP, 2022) One reason for the high Gini coefficient in contrast with the low average income may lie in the added value of the coca plant. This can result in a very small number of people receiving a large share of the nationally available income. The value added of over 204,001% based on the price per kilogram in combination with an average of 146,500 households in 2014 indicates a very compressed distribution of added value. (UNODC and Government of Colombia, 2015)

4 Political Situation

This section explains the political situation and foreign policy events. Colombia is currently a presidential republic, under the leadership of President Gustavo Francisco Petro Urrego since 2022. Congress is divided into two chambers: the Senate and the House of Representatives. Elections are held every four years. (Auswärtiges Amt, 2023) The combination of high regulatory measures on the part of the government and the low threshold of compliance with the law, that allows laws to be broken creates an area of tension, and this tension creates room for corruption. (Statista, 2023) Regarding to this situation, both left-wing and right-wing forces have formed organizational structures.

This is how the Marxist guerrilla organization FARC came into being in 1964. The 10,000-strong group has control over large areas of the countryside and is aiming to redistribute wealth from the rich to the poor. However, it also opposes the foreign policy efforts of the current government, which is in favor of strong foreign trade and economic agreements. In the view of the FARC, cooperation with other countries, particularly the USA, is an unwanted behavior by the government. For example, the FARC take on state tasks in the areas under their control. Taxes are collected to implement public welfare projects. However, it is this tax revenue that the state lacks in order to carry out state functions. This results in an undesirable tax shift by the state when distributing the tax sum. Due to this conflict between the elected government and the FARC, there are repeated military conflicts in the controlled areas. The left-wing organization uses kidnappings, attacks and sabotage to exert pressure. After many years of violent conflict, a peace agreement was reached between the Colombian government and the FARC for the first time in 2017, which resulted in the handover of all weapons to UN representatives. Since then, the FARC has increasingly transformed itself into a political party and has secured 10 non-elected seats in parliament. (Britannica, 2024) In addition to the FARC, the ELN, National Liberation Army, is also active on the left-wing spectrum. Like the FARC, this group was formed in 1964 and fights against the government. The main point of confrontation is injustice in social, political and economic issues, for which the Colombian government is held responsible. Likewise to the perspective of the previously mentioned organization, the foreign policy relationship with the USA is a thorn in its side. In addition to its activities in the drugs business, the ELN is also involved in illegal gold mining in Colombia itself, as well as in Venezuela. Its methods of exercising power include the kidnapping of political actors and para-military confrontations. (Stanford University, 2019)

As with the FARC, Colombia was also prepared to engage in peace negotiations with the ELN. However, these were not carried out consistently, as the group was inactive at times due to its small number of members. According to estimates, 2,402 people are currently directly involved in the orga-

nization. (Murphy and Acosta, 2019) However, the last attempts at peace negotiations in 2017 were ended by fighting on the part of the ELN in 2019 without the wanted result. ELN is still doing violating attacks there.

5 US-Colombian Free Trade Agreement

The following section discusses the free trade agreement between the USA and Colombia from 2007. The main objective of the FTA is to facilitate trade in goods and services between the two countries. To achieve this goal, this FTA contains three core topics. First and foremost is the elimination or reduction of taxes on imported products from both countries. This should ensure a higher density of trade and service flows, which should strengthen the respective economies. Another point is the labor and environmental regulations. The Colombian economic and social system is to be brought closer to that of the USA. However, in 2008, there were delays due to disagreements over the regulations in the agricultural sector, which pushed the project back by several years.

The agreement should bring various benefits for both countries. For example, the US would like to increase exports through easier market access to increase its own GDP. The project is also intended to facilitate American FDI in Colombia. However, this agreement also has other advantages for Colombia. For example, the agreement ensures economic stability, as certain export volumes are now more predictable and easier to plan. Furthermore, this agreement will ensure economic growth in Colombia, as the USA will be added to its own domestic sales market.

Overall, the agreement also poses challenges for the countries involved. The areas of labor law, market access and the impact on individual economic sectors are particularly important. In the area of labor law, there is concern in Colombia that the government will not be able to implement and monitor the legal provisions. Similarly, the position of trade unions is not uniformly supported, which creates social tension. In addition, the USA is concerned that it will not be able to fully exhaust all export opportunities in the agricultural sector, which is also in competition with other free trade agreements Colombia has with Canada, for example. (Villarreal, 2011)

This agreement has also changed the conditions for coca value creation, as it is now available to a much larger sales market. Due to the great importance of Colombian cocaine in the global market, which accounts for 61% of the cocaine produced worldwide, the simplified customs route via the USA makes it easier to smuggle these substances. As a result, the cultivation of cocaine in Colombia has become even more lucrative in economic terms. In the USA, for example, there has been a drastic increase in cocaine-related deaths in recent years, which can be attributed to the simplified and easier conditions for importing goods into the USA. (Statista, 2023) Under softer customs regulations, these make it easier to bring drugs such as cocaine into the USA illegally.

6 Solution Design

In this section, possible solutions are developed based on the overarching question *Should something happen somewhere else that we don't want to have here?*. To consider this, the situation is simplified for approachability as follows:

Colombia, a country with a government that has strong laws but is unable to enforce them, is the largest producer of one of the world's most widely consumed drugs. (Statista, 2023) In addition, these produced quantities all come from illegal operations by paramilitary organizations that fight against the government of a country and thus try

Due to the great importance of Colombian cocaine in the global market, which accounts for 61% of the cocaine produced worldwide, the simplified customs route via the USA makes it easier to smuggle these substances. As a result, the cultivation of cocaine in Colombia has become even more lucrative in economic terms.

to achieve their goals by fighting and taking the civilian population hostage.

Is this what the era of globalization is all about? Should things or activities that should not take place in our own countries be outsourced? Surely this is not a solution for a peaceful and fair global community. To bring about a solution or improvement in the situation, a cessation of payment flow from consumers resident abroad could be introduced. This could be achieved through increased controls, for example by customs officials, on the movement of goods across national borders. This would have the effect of making cocaine creation less attractive and thus destroying the business model of those involved in cultivation. In addition, exports of cocaine would be much more costly and risky, which would further increase prices. With this effort, the price of cocaine would automatically be higher and possibly cause consumers to disappear from the market due to high price levels. The shortage of cocaine on the world market would also lead to demand-pull inflation. In this case, the price level of a good rises due to an increase in demand in relation to supply. (Perry, 2008) This type of inflation would be intentional, to reach fewer consumers abroad. Additionally, the necessary adjustments would not take place in Colombia, but abroad. This conclusion shows that the problem cannot only be solved within Colombia, but to a large extent via other states and governments. The para-military organizations involved would no longer have a financial basis, which could lead to their dissolution. However, this project would eliminate jobs due to overproduction of cocaine, as production as it currently exists would no longer be necessary. The almost 150,000 households involved would be forced to pursue legally regulated and state-controlled professions. This would give the state new scope for action in the exercise of state functions due to the increase in tax revenue.

Unfortunately, this concept has a difficulty. This difficulty lies in the implementation of global resolutions. They tend to be broad in scope and aim for the distant future, while trying to set directions and define common ground. (Hazeltine, 2003) Consequently, it would be very challenging to obtain a concretely helpful solution with the help of the UN as a binding and unifying element. In addition,

Colombia's coca economy is of great importance to the global economy.

The health and economic damage and the resulting possible family pain caused by the consequences of cocaine use should not be ignored. There can be both short-term and long-term consequences of using this drug, which can manifest themselves in symptoms such as palpitations, cardiomyopathy, or psychosis. In the long term, it can also lead to depression, stomach damage or liver/kidney damage, and death in the worst case. (Walter, et al., 2023) The solutions outlined above would not only reduce the suffering of the population in Colombia, but also the suffering of many of those affected globally.

7 Conclusion

Referring to the research question posed at the beginning, *How does the 2007 free trade agreement between Colombia and the USA influence the situation in Colombia?*, the results of the paper will now be presented. The free trade agreement influences Colombia in almost all areas of its functions. It plays a role in the areas of politics and administration, legislation, the economy and the social and civil society sectors.

Starting with the area of politics, where new diplomatic relations were presented, continuing with the administration, which has taken on other functions in part due to the changing customs conditions with the USA, and in legislation, which has taken on the labor law and environmental law aspects of the agreement. Then there was the transition to the business sector, where new export and import conditions prevail and the formation of trade unions has changed the way companies work. And finally, in the social sphere, with organizations such as the FARC gradually moving from their militant stance to the partypolitical spectrum through negotiations, just as the first trade unions enabled civil society to have a say in labor policy discussions.

However, there are also national and international disadvantages in the coca and cocaine economy. The cocaine smuggling routes resulting from the more open trade routes have had a negative impact on global civil society and the economy. At a national level, the increased quantities of cocaine produced have further increased inequality in

income distribution in the country, which brings with it the potential for social unrest. Regarding the legal situation, it can also be said that it has improved in some areas, particularly at the national level, but has deteriorated globally due to the sharp increase in the health consequences of consumption.



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Conclusion

The three analyses of traditional coca leaf consumption and drug trafficking in Colombia reveal a profound challenge that encompasses social, economic, political, and legal dimensions. Despite extensive efforts, including the United States-supported initiative "Plan Colombia," to reduce illegal drug trafficking and coca cultivation areas, these measures have not resolved the issue. Instead, they have often led to socio-economic and violent conflicts, highlighting the complexity of the matter.

A central aspect of the challenge is the significant human rights dimension. Efforts to combat coca cultivation and the associated drug trade, such as the use of glyphosate for eradication, have raised serious environmental, health, and social concerns. These actions have not only impaired the livelihoods of farmers but also affected the broader community's right to health, adequate living conditions, and economic opportunities.

The coca plant holds cultural significance in Colombia and the broader Andean society, traditionally used for medicinal purposes and as part of spiritual practices. The challenge lies in balancing these traditional uses with the global fight against cocaine production and trafficking. Legal frameworks and international policies have struggled to effectively address these dual aspects. The Colombian government's efforts to control coca cultivation and cocaine production, including military operations and attempts at crop substitution, have faced significant obstacles.

The findings suggest that a continued focus on repression and eradication without simultaneously promoting sustainable alternatives and socio-economic development will not lead to success. Instead, a strategic reorientation is required, recognizing the complexity of the issue and offering a broad spectrum of solution approaches, ranging from strengthening rural development and respecting cultural practices to comprehensive political reforms. The situation is complicated by the involvement of various armed groups, the

economic dependency of many rural communities on coca cultivation, and the ineffectiveness of eradication strategies.

The case study suggests that addressing the issue requires a multifaceted approach that goes beyond eradication and law enforcement. Solutions should focus on sustainable development, alternative livelihoods, respect for cultural practices, and comprehensive policy reforms that consider the socio-economic realities of coca cultivation. International cooperation and a move towards policies that prioritize human rights, environmental protection, and social justice are crucial. In particular, the proposed new 10-year drug strategy reflects the understanding that a long-term, sustainable approach is needed to address the problem. It emphasizes international cooperation, the development of alternative livelihoods, and the importance of addressing the underlying socio-economic factors driving coca cultivation and trade.

In summary, research papers illustrate the complex interplay between traditional coca leaf consumption, the global drug trade, and efforts to combat it in Colombia. Effective solutions require a holistic approach that respects human rights, acknowledges the cultural significance of the coca plant, and addresses the root causes of cultivation and trafficking. This approach must bring together local communities, the national government, and the international community in a joint endeavor.

A key overall conclusion from this analysis is that addressing the challenges surrounding coca cultivation and drug trafficking in Colombia requires a deep understanding of the local circumstances and a strong commitment to human rights, social justice, and sustainable development. Only through such a comprehensive and integrated approach can lasting and positive changes be achieved, not only leading to a decrease in coca cultivation and drug trafficking but also sustainably improving the living conditions of people in Colombia.

Bibliography and sources

- APA (2022). *Colombia suspends destruction of coca plantations*. Retrieved from: www.derstandard.de/story/2000138491539/kolumbien-setzt-vernichtung-von-koka-plantagen-aus.
- Arenas P., Vergas R. (2020). *Forced destruction of crops for illegal use and human rights*. Retrieved from: www.tni.org/en/article/forced-eradication-of-crops-for-illicit-use-and-human-rights.
- Auswärtiges Amt (2023). *Kolumbien: Steckbrief*. Retrieved from: www.auswaertiges-amt.de/de/service/laender/kolumbien-node/kolumbien/201514.
- Basic Law for the federal republic of Germany in the corrected version published in the federal law Gazette Part III, Section 100-1, last amended by Article 1 of the Act of December 19, 2022 (Federal Law Gazette I p. 2478).
- Baskici, B. (2022). *Neuausrichtung im Kampf gegen den Drogenhandel in Kolumbien*. Retrieved from: www.amerika21.de/2022/09/259864/drogenpolitik-kolumbien.
- Bauer, I. (2019). *Travel medicine, coca and cocaine: demystifying and rehabilitating Erythroxylum – a comprehensive review*. Tropical Diseases, Travel Medicine and Vaccines, Volume 5 (20). Retrieved from: www.doi.org/10.1186/s40794-019-0095-7.
- Biondrich, A. S., Joslin, J. D. (2016). *Coca: The History and Medical Significance of an Ancient Andean Tradition*. Emergency Medicine International, Volume 2016 (ID 4048764). Retrieved from: www.dx.doi.org/10.1155/2016/4048764.
- BMEL (2023). *Fragen und Antworten zu Glyphosat*. Retrieved from: www.bmel.de/SharedDocs/FAQs/DE/faq-glyphosat/FAQglyphosat_List.html.
- Britannica (2024). *FARC – Colombian militant group*. Retrieved from: www.britannica.com/topic/FARC.
- Bundesverfassungsgericht (2021). *ECLI:DE:BVerfG:2021:rs20210324.1bvr265618*. Retrieved from: www.bundesverfassungsgericht.de/SharedDocs/Entscheidungen/DE/2021/03/rs20210324_1bvr265618.html.
- Callen, T., Jahan, S. (n.d.). *Gross Domestic Product: An Economy's All, Economics Concepts Explained*. Finance and Development Magazine, pp. 14-15. Retrieved from: www.imf.org/-/media/Files/Publications/Fandd/Backto-Basics/callen-gdp.ashx.
- Colombia: *Constitutional Court stops glyphosate use against coca cultivation*. Retrieved from: www.amerika21.de/2022/02/256679/kolumbiengericht-glyphosat-koka.
- Crisis Group (2020). *Farmer's Association*. Interview: Coca eradication in colombia. Guayabero, San José del Guaviare.
- Felbab-Brown, V. (2005). *The Coca Connection: Conflict and Drugs in Colombia and Peru*. Journal of Conflict Studies, Volume 25. Retrieved from: www.erudit.org/en/journals/jcs/2005-v25-n2-jcs_25_2/jcs25_2art05.pdf.
- Felbab-Brown, V. (2017). *What Colombia can learn from Thailand on drug policy*. Retrieved from: www.brookings.edu/articles/what-colombia-can-learn-from-thailand-on-drug-policy/.
- GLOBAL 2000 (no D.). *Glyphosat: Gefahren für Mensch, Tier & Natur*. Retrieved from: www.global2000.at/glyphosat-gefahren#birgt-glyphosat-gefahren-fuer-tiere.
- Goldstein, R.A., DesLauriers, C., Burda, A.M. (2009). *Cocaine: History, Social Implications, and Toxicity – A Review*. Disease a Month, Volume 55 (1) pp. 6-38. Retrieved from: www/linkinghub.elsevier.com/retrieve/pii/S0011502908001363.
- Gurk, C. (2021). *Drogenkrieg mit Pflanzengift*. Retrieved from: www.sueddeutsche.de/politik/kolumbien-glyphosat-kokain-drogenbanden-1.5329800.
- Gustafson, B. (2010). *The Spirituality of Coca: Comments by Maria Eugenia Choque & Carlos Mamani*. Retrieved from: www.cultural-survival.org/publications/cultural-survivalquarterly/spirituality-coca-comments-maria-eugenia-choque-carlos.
- Gustavo, P. (2022). *Kolumbien will keine Kokafelder mehr vernichten*. Retrieved from: www.zeit.de/politik/ausland/2022-08/gustavo-petro-kolumbien-kokaanbau-felder-vernichtung-stopp.
- Hazeltine, B. (2003). *Planning and Implementation*. Field Guide to Appropriate Technology pp. 17-156. Retrieved from: www.doi.org/10.1016/B978-012335185-2/50045-0.
- Herrberg, A. (2021). *Überleben mit Koka*. Retrieved from: www.deutschlandfunkkultur.de/koka-in-kolumbien-100.html.
- Humanrights.ch, Article 25. *Right to an adequate standard of living*. Retrieved from: www.humanrights.ch/de/ipf/grundlagen/rechtsquellen-instrumente/aemr/artikel-25-aemr-recht-ange-messenen-lebensstandard#:~:text=Erl%C3%A4uterung%20zu%20Artikel%2025,und%20Ern%C3%A4hrung%20sowie%20C3%A4rztliche%20Betreuht.
- Idrovo, A., A Rodríguez-Villamizar, L. (2018). *Moving back in policy banning glyphosate use in Colombia*. Retrieved from: [www.thelancet.com/journals/lancet/article/PIIS0140-6736\(18\)31883-X/fulltext](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(18)31883-X/fulltext).
- International Crisis Group (2021). *Deeply Rooted: Coca Eradication and Violence in Colombia*. Regional Report, Volume 87. Retrieved from: www.icg-prod.s3.amazonaws.com/087-cocaaeradication-in-colombia.pdf.
- Köppl M. (2023). *Koka - 4 Uses between medicinal plant and drug*. Retrieved from: www.triplelegend.com/magazine/koka-anbau-in-suedamerika.
- Merkur.de (2022). *Was Europas Kokain-Rausch für die Bauern bedeutet*. Retrieved from: www.merkur.de/welt/was-europas-kokain-rausch-fuer-die-bauern-bedeutet-zr-92001479.html.
- Meyer, S. (2023). *Kolumbien: Bevölkerung wird in Friedensprozess einbezogen*. Retrieved from: www.amerika21.de/2023/10/266235/kolumbien-soziale-beteiligung-frieden.
- Minjusticia (2023). *Nueva política de drogas reducirá la producción de cocaína en 43%, Minjusticia*. Retrieved from: www.minjusticia.gov.co/Sala-de-prensa/Paginas/Nueva-politica-de-drogas-reducira-la-produccion-de-cocaina-en-43.aspx.
- Murillo-Sandoval, P.J., Kilbride, J., Tellman, E., Wrathall, D., Van Den Hoek, J., Kennedy, R.E. (2023). *The post-conflict expansion of coca farming and illicit cattle ranching in Colombia*. Science Report, Volume 13 (10). Retrieved from: www.doi.org/10.1038/s41598-023-28918-0.
- Murphy, H., Acosta, L.J. (2019). *Exclusive: Colombian armed groups recruiting desperate Venezuelans, army says*. Reuters. Retrieved from: www.reuters.com/article/idUSKCN1TL13I/.
- NABU (no D.). *Unkrautvernichter Glyphosat Die Kritik an Glyphosat bleibt bestehen*. Retrieved from: www.nabu.de/umwelt-und-ressourcen/pestizide/glyphosat.html.
- Nayar, J. (2020). *Aerial Fumigation in Colombia: The Bad and The Ugly*. Retrieved from: www.hir.harvard.edu/aerial-fumigation-in-colombia-the-bad-and-the-ugly/.
- Office for National Statistics (2022). *Gini coefficient*. Retrieved from: www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/families/methodologies/theginicoefficient.
- Oficina de las Naciones Unidas contra la Droga y el Delito (UNODC). *Sistema Integrado de Monitoreo de cultivos ilícitos (SIMCI) 2022. Colombia. Monitoreo de territorios afectados por cultivos ilícitos 2021*. UNODC Research.
- Perry, G.L. (2008). *Demand-Pull Inflation*. The New Palgrave Dictionary of Economics, pp.1-4. Retrieved from: www.link.springer.com/10.1057/978-1-349-95121-5_39-2.
- Pinto Marroquin, Marianna, Carlos Castaño, Jairo Pérez, Jhon F Aristizabal, Difac Santos, Aquilino Ramos and Juan Serio. 2022. *Potential conflict as an opportunity for coexistence: cosmovision and attitudes of Arhuaco people towards jaguars*. Ethnobiology and Conservation 11:21. Retrieved from: www.researchgate.net/publication/365455064_Potential_conflict_as_an_opportunity_for_coexistence_cosmovision_and_attitudes_of_Arhuaco_people_towards_jaguars
- Puri, E.E, Rofner, N.F., Vásquez, L.N. (2023). *Impact of Erythroxylum coca cultivation on soil quality in the Aguaytia valley, Peru*. Soil and Environment, Volume 42 (1), pp. 65-76. Retrieved from: www.doi.org/10.25252/SE/2023/243041.
- Rasolt, D. (2019). *Global context of Glyphosate use and misuse*. Retrieved from: www.unboundedworld.com/controversy-with-the-use-of-glyphosate-in-colombia/.
- Schmeil, A. (2021). *Resistance against the destruction of coca plantations in Colombia, 10/31/2021*. Retrieved from: www.amerika21.de/2021/10/255264/widerstand-vernichtung-koka-plantagen.
- Stanford University (2019) *National Liberation Army (ELN)*. Retrieved from: www.cisac.fsi.stanford.edu/mappingmilitants/profiles/national-liberation-army-eln.
- Statista (2022). *Average price of selected illicit cocaine products in Colombia in 2021 (in Colombian peso per kilogram)*. Retrieved from: www.statista.com/statistics/1376841/average-price-of-cocaine-products-by-regioncolombia/.

- Statista (2022). *Colombia – Statistics report about Colombia*. Retrieved from: www.statista.com/study/41117/colombia-statista-dossier/.
- Statista (2023) *Latin America & Caribbean: Share of economic sectors in gross domestic products (GDP) from 2011 and 2021*. Retrieved from: www.statista.com/statistics/699081/share-of-economic-sectors-in-gdp-in-latinamerica-and-caribbean/.
- Statista (2023). *Colombia: Share of economic sectors in the gross domestic product (GDP) from 2012 to 2022*. Retrieved from: www.statista.com/statistics/369032/share-ofeconomic-sectors-in-the-gdp-in-colombia/
- Statista (2023). *Gross national income per capita in Latin America and the Caribbean in 2022*, by country. Retrieved from: www.statista.com/statistics/1066610/gross-nationalincome-per-capita-latin-america-caribbean/.
- Statista (2023). *Number of drug poisoning deaths involving cocaine in the U.S. from 1990 to 2021*. Retrieved from: www.statista.com/statistics/611237/cocaine-deaths-usnumber/.
- Statista (2023). *Percentage of illicit drug use in global population in 2021, by drug type*. Retrieved from: www.statista.com/statistics/443460/percentage-of-population-that-hasused-illicit-drugs-by-drug/.
- Statista (2023). *Politics & Society – Crime and violence in Colombia*. Retrieved from: www.statista.com/study/135033/crime-and-violence-in-colombia/.
- Suhner, S. (2020). *Regierung von Kolumbien will wieder Glyphosat versprühen*. Retrieved from: www.amerika21.de/2020/03/237884/kolumbien-koka-coca-drogen-gewalt.
- UNDP (2022). *Income distribution inequality based on Gini coefficient in Latin America as of 2021*, by country. Retrieved from: www.statista.com/statistics/980285/incomedistribution-gini-coefficient-latin-america-caribbean-country/.
- United Nations (n.d.). *Universal Declaration of Human Rights*. Retrieved from: www.un.org/en/about-us/universal-declaration-of-human-rights.
- UNODC, Government of Colombia (2015). *Colombia – Coca cultivation survey 2014*. Retrieved from: www.unodc.org/documents/crop-monitoring/Colombia/censo_INGLES_2014_WEB.pdf.
- Villarreal, M.A. (2011). *The U.S.-Colombian Free Trade Agreement: Background and Issues*. CRS Report for Congress. Retrieved from: www.everycrsreport.com/files/20111220_RL34470_fe0a307c0bf311350577d77cbff0484dd44211d2.pdf.
- Walter, L-K., Armstrong, L., Kelley, R. (2023). *Short and Long-Term Effects of Cocaine Use and Addiction*. Retrieved from: www.americanaddictioncenters.org/cocaine-treatment/risks.
- Weigand, G. (2023). *Bolivia and Colombia demand end to ban on coca plant*. Retrieved from: www.amerika21.de/2023/03/263029/bolivien-kolumbien-kokablatt.
- World Bank (n.d.). *GDP per capita (current US\$) – Colombia, Latin America & Colombia*. Retrieved from: www.data.worldbank.org/indicator/NY.GDP.PCAP.CD?locations=CO&most_recent_value_desc=true.
- Zeit Online (2022). *Colombia no longer wants to destroy coca fields*. Retrieved from: www.zeit.de/politik/ausland/2022-08/gustavo-petro-kolumbien-kokaanbau-felder-ver-nichtung-stopp#:~:text=Das%20Argument%20der%20Landwirte%20f%C3%BCr,get%C3%B6tet%20oder%20durch%20Landminen%20verletzt.

4

Case study
**The artisanal fishing
community of
Chorrillos, Peru**

Introduction

In his doctoral thesis "Place-based communities and neoliberalism: A study of the artisanal fishing community of Chorrillos, Peru," Héctor Andrés Bombiella Medina examined the impact of neoliberal policies on local communities, specifically focusing on the artisanal fishing community in Chorrillos. He explored how economic liberalization, privatization, and deregulation affect the socio-economic conditions, environment, and social structure of this community. The study offers insights into the complex interplay between place-based communities and neoliberalism – a system characterized by a minimal state and self-regulated market, which has led to market failures, social polarization, and uneven development, with the state evading responsibility for the less privileged. As asymmetries and inequalities become more visible, local organizations have emerged to negotiate on behalf of communities. Additionally, urbanization further complicates this scenario, as rapid urban expansion exacerbates socio-economic disparities and environmental burdens, especially in developing nations such as Peru. The fishing community of Chorrillos faces pressure from Peru's elite, who view the port as a profitable space, perpetuating historical inequalities. Artisanal fishing, considered an occupation of the lower class, is plagued by poor infrastructure and living conditions. Artisanal fishermen struggle with poverty and social exclusion, with limited government support. Global issues such as overexploitation, inefficient regulations, and declining fish stocks affect artisanal fishing groups, highlighting broader concerns of poverty alleviation and food security. Labels for sustainable fishing, while well-intentioned, often benefit large industries and fail to support small-scale fishermen effectively. In Chorrillos, tensions arise over access to fishing grounds, with industrial and artisanal fishers vying for control. The community's definition of the environment goes beyond conservation, emphasizing its importance for daily sustenance and livelihoods. Finally yet

importantly, the anthropologist analyzed the dynamics between local identity, traditional practices, and the forces of global capitalism. The work shed light on the tensions and challenges faced by the community, and suggested possible ways for it to adapt to these changing conditions.

The three authors of the following student research papers were asked within the framework of the interdisciplinary elective "Human Rights" to engage with the case study "The artisanal fishing community of Chorrillos, Peru" and to shed light on the legal and ethical perspectives. Furthermore, they were asked to report strategies to collaborate with the artisanal fishers association, local authorities, international NGOs, and cooperation to address one of the fishers' challenges and to give recommendations for action to improve the livelihood of these local-based communities.

With her paper "Artisanal fisheries in circumstances with political framework and co-management" Dorothea Hensing discusses the high productivity of pelagic fish in the Humboldt Current Large Marine Ecosystem (HCLME) and how it is impacted by factors such as acidification and oxygen depletion due to global warming. This ecosystem, rich in marine life, faces significant challenges exacerbated by extreme weather events like El Niño and La Niña, profoundly impact the livelihoods of artisanal fishermen, creating economic instability. Despite these adversities, artisanal fisheries remain crucial contributors to Peru's GDP. However, their sustainability and financial stability are compromised by various factors, including the lack of institutional support and the prevalence of informal practices within the industry. Informality permeates aspects such as labor relations and vessel construction, consequently affecting workers' rights, their financial stability and rendering them vulnerable. Fishing communities, such as the one in Chorrillos, are complex socio-ecological systems reliant on social capital, but they are susceptible to external influences. Political dimensi-

ons further complicate the scenario, necessitating the establishment of effective co-management mechanisms, artisanal fisheries' inclusion in decision-making processes, a comprehensive understanding of ecosystem threats, and policy reforms to address informality. The author demonstrates the importance of strengthening governance and decision-making processes to address institutional flaws and protect the marine ecosystems and livelihoods of artisanal fishermen in Peru.

Climate change, though a global challenge, will not distribute its impacts uniformly across the world's population. Indigenous and local-based groups, such as the artisanal fishers of Chorrillos, are anticipated to be among the communities most profoundly affected by its consequences. While there is a growing body of literature related to traditional ecological knowledge (TEK) and climate change, it is not yet a mainstream consideration in sustainable development. In her paper "Traditional ecological knowledge – a key element of sustainable development" Nina Giordano highlights the vital role of this particular body of knowledge while human societies encounter unprecedented challenges such as pollution, overfishing, biodiversity loss, and deforestation. At the heart of the paper lies the recognition of TEK as more than just a repository of ancestral lore and beliefs; it is a living, dynamic system shaped by the collective experiences, observations and practices for sustainable use of generations past and present. The author addresses the issue of TEK, its protection and its interrelationship with western science as follows: First, the author deals with terminology and describes the six faces of faces of TEK. She then enumerates the various actors involved and addresses the importance of fostering collaboration and knowledge exchange between scientists and locals. As she delves deeper, she unravels the multifaceted roles and relevance of TEK in contemporary conservation efforts and natural resource management. In a further part, the paper discusses the protection and legal framework of TEK and how sound policy might provide the necessary framework for acknowledging, validating, and integrating TEK into decision-making processes and can promote a more inclusive and holistic approach to environmental management, conservation and sustainable development.

The paper by Yasmin Krami, "Strategy to promote the Human Right to an Adequate Standard of Living for Peruvian Artisanal Fishers according to Article 25 of the Universal Declaration of Human Rights", explores the living conditions of Peruvian artisanal fishers within the framework of the Universal Declaration of Human Rights. Its principal objective is to gain a comprehensive understanding of the current living standards of these fishers and to propose viable solutions for improvement, while taking into account environmental considerations and legal frameworks. At the core of this analysis lies the endeavor to ensure an adequate standard of living for fishermen in Peru, with a particular focus on Chorrillos. Despite the presence of protective mechanisms, persistent challenges such as social inequality continue to pose significant hurdles. The case study of Peruvian fishers in Chorrillos serves as a poignant illustration of a myriad of challenges spanning from working conditions to grappling with environmental disasters. Throughout the discourse, there is a resounding emphasis on the critical role of sustainable fishing practices in addressing these challenges, not only to mitigate environmental impact but also to foster a sense of environmental consciousness and social responsibility. Furthermore, a comparative analysis shedding light on the working conditions of fishermen in New Zealand, Iceland and Mexico reveals the diversity of approaches in regulatory frameworks.

To address the research question, the method applied aims to evaluate existing research literature and policy documents as well as synthesizing ideas and critically analyzing the status quo. Due to the impossibility to conduct field work, the presented student research papers are a strictly theoretical endeavor constructed solely on secondary sources. Therefore the findings might have already been filtered by another person's interpretation, standpoint and/or cultural mediation. In addressing the need for a more comprehensive and diversified foundation for our case study, we have endeavored to incorporate various viewpoints. This has involved gathering a broader spectrum of research data and insights from both Indigenous and non-Indigenous scholars and intellectuals. Our aim is to portray the case at hand with the utmost nuance and depth possible.

Artisanal fisheries in circumstances with political framework and comanagement

Author: Dorothea Hensing

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1 The marine ecosystem of Peru

The first chapter provides an overview of three main topics: the Humboldt Current Large Marine Ecosystem (HCLME), El Niño and La Niña phenomena, and marine heatwaves. It discusses the unique characteristics of the HCLME and its vulnerability to global warming-induced changes. Furthermore, it examines the impacts of El Niño and La Niña on weather patterns and fisheries in Peru, particularly affecting artisanal fishing communities.

Lastly, it explores the increasing frequency and intensity of marine heatwaves and their detrimental effects on ocean ecosystems, emphasizing the importance of understanding and addressing these issues for coastal regions in Peru.

1.1 The Humboldt current large marine ecosystem

The Peruvian coast is located at the Humboldt Current Large Marine Ecosystem (HCLME) and is

spreads more than two hundred nautical miles from the coast. Within the HCLME is the Humboldt Current System which makes up 65% of the HCLME. Significant is that the Humboldt Current System differs from comparable ecosystems like the eco-systems of California, the Canary Islands, Humboldt, and Benguela. Those differences include that the HCLME is the ecosystem closest to the equatorial line. There for it is most affected by ENSO (The equatorial Pacific is the source of the El Niño-Southern-Oscillation, which is the predominant type of interannual variability there. It has significant links to the other oceanic basins and has an impact on the environment and physical landscape of the Pacific basin. Oceanic and atmospheric teleconnections are responsible of this) (Baldenhofer, 2014). While, compared to the other four ecosystems, it has the high-est effectiveness in fishing stocks even though that the facts show that the primary effectiveness in fishing is equal to them. And lastly it is significant that the HCLME has a flat and intensive subsurficial minimum layer of oxygen which is combined with the oxygen-rich epipelagic habitat, compressed to a small area. In summary, this means, that the HCLME has an extraordinary pelagic fishproductivity which is mostly compact in the Peruvian buoyancy system (Dimitri et. al., 2016).

An assumption is that, triggered by global warming, the warming and matter-exchange between the atmosphere, ocean and continent will bring about change to pressure gradients, coastal and cross-costal wind fields, ocean currents, sea surface temperature (SST) and thermal stratification. Another fact is that the expansion of entering carbon dioxide into the ocean and large stratification will lead to acidification and oxygen depletion, triggering a cascade of biogeochemical and ecological changes in the marine ecosystem.

It is unclear how these stressors affect the productivity and biodiversity of the HCLME, and if the physical and biogeochemical alterations will affect the phenology, species compositions, and spatial distributions of primary and secondary producers. Globally it is prognosticated that without a change, the marine primary productivity will be declining, and the marine ecosystem will suffer loss, especially in the tropical, and polar regions (Dimitri et al., 2016). Therefore, morphological, sym-

biotic, and metabolic traits appear to be crucial adaptations required for larger organisms to be able to survive the many stress factors. However, this also deserves further research (ibid.).

1.2 El Niño and La Niña

Further ecological issues influenced by global warming are the effects El Niño and La Niña; The unusual weather on the west coast of South America, South Asia, and Australia, is due to El Niño and La Niña which bring heat, frost, hurricanes, and torrential rains. Droughts, enormous waves, floods, and landslides can be the results. Extreme weather occurrences are typically triggered by the El Niño weather phenomena. El Niño frequently causes destructive and severe effects such as heat waves, droughts, floods, hurricanes, low fish stocks, starvation, droughts, forest fires, and landslides. But El Niño can also cause the blooming of deserts, replenishing dried-up water reserves. Precise research has not yet been done on why the erratic weather phenomena El Niño causes in the southern hemisphere on the Pacific Ocean around Christmas time. The Pacific coasts of Ecuador, Peru, and Chile typically see a steady high-pressure area during this time of year, while the coast of South-East Asia experiences a low-pressure area. The cold winds travel northward toward the equator due to the area of high pressure off South America. Once there, the Coriolis force deflects the winds westward, creating a trade wind that blows from the southeast. The air gradually rises in temperature and collides with the low-pressure area off the Australian coast (Rundfunk, 2023). These anomalies have a major impact on Peru, especially for local fishermen, whether industrial or artisanal. The impact on Peru's artisanal fishermen is multifaceted. Economically and socially, phenomena such as El Niño and La Niña are drastically restrictive for them. Artisanal fishers are particular affected by these phenomena because their local communities depend on the ecosystem and the resources that it is providing. In this manner, climate variations like the anomalies have the potential power to impact whole socio-ecological systems, (SEs). A deeper comprehension of these dynamics on a management level and whether they are socially and ecologically-related, directly, or indirectly, could have a positive influence on the existential

basis of communities, specifically as it relates to marine resources (Kluger et. al., 2019).

1.3 Marine heat waves

An anomaly the Peruvian Coast and Ocean are also affected by marine heatwaves. Marine heatwaves are periodic extremely warm sea temperatures that can last for days or months. They can extend over more than 1000 kilometers and reach several hundreds of meters in depth. These heatwaves occur twice as often today as they did 35 years ago and, according to climate model predictions, will occur more frequently in the future.

Recurring weather phenomena such as El Niño appear to be an important factor in marine heatwaves. However, marine heatwaves have not been as well researched, either quantitatively or qualitatively, as heatwaves on land (Frölicher, 2019). The concentration of greenhouse gases in the atmosphere increases due to the heat stored in the earth system. Most of the heat is absorbed by the ocean, which contributes to rising sea levels. This is illustrated in figures: between 1987 and 2010, the ocean stored 93% of the heat. The remaining 7% was distributed on land, in the atmosphere and on ice. This makes the ocean the largest heat reservoir in our climate system, slowing down the warming of the atmosphere to a significant extent. However, this has the effect that the uppermost ocean layers are continuously warmed (ibid.).

Marine heatwaves are periodic extremely warm sea temperatures that can last for days or months. They can extend over more than 1000 kilometers and reach several hundreds of meters in depth. These heatwaves occur twice as often today as they did 35 years ago and, according to climate model predictions, will occur more frequently in the future.

The rising temperatures in the ocean increase the probability of both the frequency and the intensity of marine heat waves. This trend has already been observed. For example, in 1982 marine heatwaves occurred 1.5 times per year and in 2016 already five times per year.

The warming of the ocean negatively impacts organisms and ecosystems, and such deterioration can trigger further cascading effects, leading to the extinction of entire species and ecosystems (ibid.).

The following sections provide facts, examples, assumptions, and suggestions of what these independences means in concrete terms. Political cornerstones are the main pillars of many changes that need to be tackled to help artisanal fisheries prepare for subsequent El Niño phenomena and strengthen fishing communities, be it socio-ecologically, economically, politically, or in the manner of management. These anomalies are influencing coastal regions of Peru like Chorillos, Piurra, Sechura and many more.

2 Economic aspects

Peru's artisanal fisheries industry is vital for food security and economic prosperity, notably driven by the Jumbo Flying Squid (JFS) fishery along the northern coast. However, the sector faces informality, hindering its full potential despite significant contributions to GDP. Challenges including regulatory ambiguity and market vulnerabilities exacerbate poverty and vulnerability. A comparative study with Chile underscores the importance of formal co-management structures in enhancing economic efficiency and curbing illicit markets. Thus, institutional reform and proactive management are imperative to ensure sustainable livelihoods and economic resilience amidst ongoing challenges.

2.1 Navigating challenges and opportunities for sustainable livelihoods and economic impact

Artisanal fisheries are elementary for food security and the economy of Peru. In fact, they are aggregating nine to fifteen percent of the gross domestic product. Even during the COVID-19-pandemic in 2020 artisanal fishers could have been profitable (Jara et. al., 2020). Between 2010 and 2019 official data are showing that the JFS-fisheries (Jumbo flying Squid) account for 38% of all Peruvian land-

ings for direct consumption and that they make up 59% of all seafood exports for direct human consumption. Artisanal fishers are also worldwide the most affected by the weather anomalies (ibid.). But besides this fact artisanal fishers are not only confronted with weaknesses. Peru is one of the largest fishery-nations. More than eighty percent of the land catches are reprocessed for fish flour and fish oil and seafood sales are largely generated by artisanal fishermen. The artisanal fishers of Peru are predominantly settled on the northern coast, where one third of them are in the state of Piura (López de la Lama et. al., 2022). According to the data, land prices fell sharply as the quantity of land for Peruvian fisherman increased. Conversely, Chilean, and Peruvian fisherman and exporters maintained a high degree of price stability across nearly all supply levels. The research indicates that one of the main causes of Peruvian fishermen's varying price elasticity is the informal nature of JFS fishing in the country, which is devoid of co-management systems. Based on the findings, to benefit fishermen both financially and environmentally it is recommended that, the artisanal fleet currently in operation be granted secure exploitation rights as soon as possible and that cooperative management agreements be developed at a swift pace (Jara et. al., 2020).

2.2 Challenges of informality

Small scale fisheries are intrinsically complex, dynamic, and diverse. They face numerous multifaceted, and wicked challenges that result in poverty and general vulnerability. The interdependencies between poverty and vulnerability have many implications, but among them, the institutional dimensions have been found to be particularly important. Even though the Peruvian artisanal squid fleet is economically significant and contributes to income, food security, and export revenues, there are several risks associated with the lack of institutional support. A few policy concerns pertaining to the fishery hinder the industry from fully contributing to both the local and national economies. Small-scale fishermen in Peru are disproportionately affected by this informality, demonstrated by the fact that fifty percent of all small businesses, seventy percent of the economically active population, and one-fifth of the countries' GDP (Gross

Domestic Product) are reportedly involved in the informal economy (Gozzer-Wuest et. al., 2022).

A first problem with the policy is that, like most small-scale fisheries in the nation, the fishery is still de facto open to the public, which makes sustainable use difficult. Programs to legalize the active operational fleet through individual and collective legal regimes have been initiated by the government since 2016. These initiatives have yielded mixed results and have been sluggish. In addition, the coexistence of different tenure regimes exacerbated tensions within the sector and hindered the collective action needed to address fisheries related problems.

Second, many of the fishing vessels are still being built outside of the law, having been constructed in local artisanal shipyards with dubious legal standing.

Third, there is frequently an informal relationship between ship owners and fishermen, which results in the hiring of unskilled seafarers and the avoidance of social security, accident, and health benefits payments. Shocks like the COVID-19 pandemic have contributed to the vulnerability of workers, particularly those groups exposed to social exclusion such as migrant workers in the fishing industry.

Fourth, informality makes it more difficult for owners of vessels to get credit from formal lenders like banks, which forces them to rely on unofficial lenders.

Fifth, although fishing is done on the informal side, distribution to exporters and post harvesting happen inside the legal system, which may create power imbalances in negotiations.

Sixth, due to a lack of efficient organization and understanding of market mechanisms, fishermen frequently overfish the market. Periodic overfishing encourages the development of an illicit squid market for fishmeal and causes abrupt drops in squid prices, which lead to cyclical social tensions.

Seventh, a sizable number of exports are shipped to Europe, where actions taken to stop illicit, unreported, and unregulated (IUU) fishing may target Peruvian JFS fisheries. In this regard, the US International Trade Commission has recently voiced concerns. Communities that depend on fishing may suffer even more unfair effects from such measures (Gozzer-Wuest et. al., 2022).

Because of informality, government officials are unable to clearly see how JFS fisheries contribute to the nation's economy and the creation of jobs. Since a large portion of fishing activity is hidden from regulators, fishery has not received the level of government support that would be expected given its importance.

Similar situations have been reported for the Peruvian scallop fishery, where government structures, due to the informal nature of traditional local users, do not function effectively and making them invisible among official stakeholders (ibid.). Various authors have suggested that the entry of industrial companies into this fishery would bring economic benefits. This could, for example, mean an increase in state income resulting from the payment of fishing rights. The possible socio-economic impact of this measure should be considered, as market flooding could be exacerbated and sensitive communities along the Peruvian coast could be negatively affected. Also Contrary is that this measure would displace the historic artisanal businesses, which already receive too little attention from the authorities and institutions (ibid.). To preserve the culture of artisanal fishermen, alternative solutions should therefore be considered.

2.3 A better price elasticity due to a management committee – a comparison between Peru and Chile

The aim should be focused on the treatment of the artisanal fisheries and how they can successfully be incorporated into the formal economy. An already proven concept has been implemented in Chile, with respect to price mechanisms, food security and regulations, which could be tried to be implemented in Peru as well:

A factor examined by Gozzer-Wuest et. al. is the significant decline in prices paid to fishermen, despite increasing landings in Peru, specifically for the Peruvian squid fleet. Accordingly, prices in Peru dropped by sixty percent while Chilean and Peruvian exporters maintained consistent prices across all levels of supply. While Peruvian fishermen experienced a sixty percent price decline with rising landings, this decrease was only twenty percent for Chilean squid fleets. The following causes were identified; Lower yield of the Chilean fleet, growing demand in international mar-

kets, processors-exporters can store products for a longer period, differences in the logistics and infrastructure of processing facilities, and trade agreements concluded by the countries during the period studied.

Considering all these factors, the authors, however, operated on a different assumption, suggesting that differences in price elasticity between Peru and Chile are attributable to Peruvian fishermen having less negotiating power than Chilean counterparts. This is due to the consequences of institutional marginalization, such as widespread dependence on informal lenders or weak organizational capacity, which is essential for pursuing communal interest (Gozzer-Wuest et. al., 2022).

To confirm the cause-effect links between institutional marginalization and price elasticity, it was found that price declines due to market flooding was a problem and that Chilean fishermen met in the governmentled management committee before the introduction of the price. This management committee, set up by the fishing communities themselves, seems to be the key to the different price declines between Peruvian fishers and Chilean fishers. Consequently, this explanation seems plausible:

During the first stages of the committee's operation in 2015, discussions on prices were driven by the artisanal sector and became one of the main focal points of the discussions held in the committee. This issue was resolved through an agreement between the representatives of the industrial and artisanal sectors participating in the committee and prevented market flooding due to the industrial sector's race to fish. From then on, the industrial sector agreed to fish its allocated quota in eight months to avoid market glut.

This agreement was made possible by the institutional recognition of the fishing sector and the introduction and operation of the management committee (a formal co-management mechanism), where fishermen's representatives could voice their concerns and effectively participate in fisheries management decision-making. This case points to the economic importance of institutional recognition and suggests that the institutional marginalization of the Peruvian artisanal catch sector could prevent greater economic efficiency that could bring environmental benefits, prevent social

tensions, and even stop the continuous rise of illegal markets for the product (Gozzer-Wuest et. al., 2022).

The measurement of the present and future vulnerability and the development of adjustment strategies are rudimentary for their sustainability as well as for the livelihoods of many humans (Jara et. al., 2020).

3 Social aspects

Fishery-communities are complex socio-ecological systems. Social, cultural, ecological, and economical aspects are interconnected and mutually influence each other, forming a broad biophysical and human network.

These interactions are influencing the total resilience of the system. Decision processes, which are ignoring or misunderstand the biophysical or human dimensions of the system will be probably lead to inadequate governance agreements, unsustainable fishing practices, undermining rights and historic personal possessions, threat the ecosystem and health, and threaten the food security of coastal fishing communities (López de la Lama et. al., 2022).

The Autor's, Santiago de la Puente et. al., examined the wellbeing of small-scale fisher's, which is in literature are rarely researched and quantified. They evaluated the socio-economic performance and evolution of two small-scale fishing communities in Northern Peru using the Sustainable Livelihoods Approach (SLA). SLA is one of the most holistic frameworks for assessing the effectiveness of development policies and interventions aimed at improving wellbeing in fishing communities (ibid.). Quantitative indicators were used to characterize fishers' financial, human, natural, physical, and social capitals.

Identified was, that the two fishing communities (CB: Cabo Blanco, EN: El Nuro) have low human and financial resources, strong social capital, and improvement in their physical capital resources and contemporary a simultaneous decline of their natural capital resources.

The results have also shown, that their target stocks and incomes are declining even though they are using selective slightly fishing methods. This indicates that such communities are highly sensitive of external environmental impacts, for

example El Niño, economic impacts like market accesses, and poorly governance (López de la Lama et. al., 2022).

3.1 Types of capital

This chapter will have a closer look into the financial capital, the human capital, and the social capital because, natural capital was already illuminated at the beginning. Physical capital also is not discussed in more detail here, as it is of no further significance for the analysis. Notable is that the types of capital are related to the vulnerability of the artisanal fishery community, which were researched in the following chapters. Remarkable is that vulnerability is a cause-effect-relationship that affect all fishing communities nationally, some stronger than others.

3.1.1 Financial capital

Most small-scale fisheries were impoverished. While the monthly minimum wage in Peru was PEN 850 (≈ USD 265) in 2017, 67% of fishermen in CB and 65% in EN reported monthly earnings below or equal to PEN 500 (≈ USD 156). In these communities, the proportion of fishermen who earn more than PEN 1000 (≈USD 311) per month is quite low (CB 12%, EN 3%). This is much less than the national average; for instance, 31% of Peruvian small-scale fishermen made less than PEN 500 per month in 2015, while 30% made more than PEN 1000.

A significant portion of the surveyed population was unable to secure their monthly income through fishing throughout the entire year (CB: 44%, EN: 62%). Alternative sources of income are rare in these areas, and only a few fishermen (CB: 24%, EN: 31%) can supplement their income through tourism, trade, or construction. Nevertheless, 60% of the surveyed fishermen (in both communities) stated that they are the sole sources of income for their households. But meanwhile the access to credit has improved, which is widespread in this communities; In CB 69% of small-scale fishermen have obtained loans from microfinance institutions or banks. In EN, this percentage account to 87%. This represents a significant increase compared to data from 2012 (at that time, for example, 50% of fishermen in CB and 63% in EN had access to loans) (ibid.).

3.1.2 Human Capital

Educational levels were similar in both communities. Most fishermen had only completed elementary school (61%) or secondary school (19%) and only 2% had obtained degrees from institutions of higher education. The remaining (18%) fishermen had not completed elementary school. Related to that, nearly half of Peruvian small-scale fishers have six to twenty years of experience and in the researched areas CB and EN, fishers averaged started working at the age of fourteen.

These results present a lack of education and without the basics of education, fishery-communities are highly vulnerable. (López de la Lama et. al., 2022).

3.1.3 Social Capital

A development has taken place in Peru, even if it just counts for the two researched areas CB, and EN, this can be seen as a positive development;

Over 75% of the surveyed fishermen belonged to local fishing guilds (OSPAs, abbreviated). OSPAs, like unions, aim to improve fishermen's pay and strengthen their rights. Fishermen from EN and CB are better organized than the average small-scale fishermen in Piura or Peru (OSPA membership: 48% and 54%, respectively). Furthermore, most organized fishermen reported regularly attending OSPA meetings and found that OSPA membership provided them with a direct benefit.

The most common benefits included: (1) improved ability to market their catch; (2) better access to formalization pathways, such as obtaining a fishing permit; (3) the presence of a safety net, e.g., a network of colleagues who can help in times of need; and (4) improved access to information. Fishermen mentioned that they trust the members of their OSPA and would collaborate in mutual interest.

As a result, from interviewed fisher and local leaders, identified were a view differences between CB and EN. In contrast to CB EN is a highly organized and united fishing community that prides itself on using highly selective, traditional fishing methods with a low ecological impact. CB is also a united fishing community, even though there are known internal conflicts (e.g. net sinkers versus hand liners) that limit cooperation between fishermen. Perhaps a crucial difference between

the two communities is that fishermen in EN regularly implement self-management mechanisms based on traditional knowledge (ibid).

As mentioned in the introduction, the forms of capital are influencing each other and show synergetic effects. The wellbeing of the fishers is enabled through policy, which support marine ecosystems. Likewise, would an improvement of the livelihoods also improve the marine ecosystem. This valuation could support policymaker during a reconstruction of sustainable developments like improved social, economic and ecological goals. Relying on that, policymakers could also aim to improve the trust and long-term sustainable developments, which may seem challenging short-term or high in costs, but in long run strengthening adaptabilities. The SLA could be a point of reference for improving customization capabilities.

Social capital was highest within the CB and EN communities. However, negative effects also influence each other negatively, so that a negative factor also weakens other capital resources.

Fishermen do not have the power to contain external fishing pressure or negotiate prices. If this hardship worsens, social capital would decrease as rivalries between fishermen would intensify and trust among fishermen may decrease. Low levels of education, which implies a low level of knowledge including their limited access to information, and the lack of alternative sources of income also make these communities more vulnerable (López de la Lama et. al., 2022).

4 Political Aspects

This paper underlines several circumstances, with which the artisanal fisheries are confronted in combination with the lack of institutional interests, actions, and assertiveness. The following current political grievances have been identified:

a) To improve the resilience of the HCLME to increasing climate pressures, clearer governance, and management of the ecosystem services of the HCLME is needed, especially because fish production is of high importance to the country's economy and society. The main threats to biodiversity are overfishing, pollution and coastal development, which reduce biodiversity in the HCLME by 65%- 75%. As a result, in the southern area of the HCLME, six fisheries have collapsed, eight are

Fishermen do not have the power to contain external fishing pressure or negotiate prices. If this hardship worsens, social capital would decrease as rivalries between fishermen would intensify and trust among fishermen may decrease. Low levels of education, which implies a low level of knowledge and the lack of alternative sources of income also make these communities more vulnerable

overfished and another eight are fully biologically exploited, and in the entire HCS (Humboldt Current System) area, fisheries have no management approach, biological reference points, or quotas.

b) Often artisanal fisheries have been not included in decision and research processes. Negative results from that are inefficient instructions, sensitivities for environmental insecurities, social traps, and market instabilities. Thus, situations are not uncirculated in developing countries such as they are in Latin America (ibid.).

c) To safeguard the transportation of goods and services out of the HCLME-area, it is important to understand the main threats to this LME, both natural and anthropogenic, as well as the annual gross domestic product of the regions. The wide variations in value reflect factors: (1) the absence of an established, standardized method for evaluating LME providers and services; (2) The varying importance of the range of economic activities in the various LMEs; and (3) the lack of data regarding important activities in some countries, such as coastal tourism (Dimitri et. al., 2016).

d) Informality in the Peruvian fleet has clear causes. According to the Peruvian National Center for Strategic Planning (CEPLAN), informality is a result of corruption, lack of transparency, low

government allocations to families, low investment in research and development, overregulation and the low average formal education duration of the population. A formal goal of clear government guidance would be of great value for artisanal fisheries.

e) Social Sciences identified institutional weakness as the cause of vulnerability of artisanal fishers. Problems like dept traps, which spring from dependence of informal financiers, and as a cause are identified as an environmental impact, negative effects at the level of bio-ecological perspective should be more closely considered for a better institutional integration in governance- and decision findings.

f) Regional experiences in Chile have shown that the implementation of comanagement solutions in small-scale fisheries is advantageous. It has become evident that fishermen have gained the ability to connect knowledge at the local level to shape decision making processes at the national level. This presents an opportunity to address many issues more effectively through active participation in management at the administrative level.

Unlike Chile, the Republic of Peru still needs to establish the political framework and create the necessary conditions to allow for the establishment of participatory comanagement mechanisms and institutions in the JFS fishery and elsewhere. Effective co-management institutions are the product of well defined elements like leadership, cooperation and necessary conditions like legally granted secure usage rights by government authorities. However, these institutions effectively can be compromised by subpar institutional procedures and corruption, some of the main reasons given by CEPLAN for Peru's informal economy (Gozzer-Wuest, 2022).

5 Management approach

As in the caption "Political Aspects" shown, many political issues are related to management approaches, which should had taken place, or at least are urgent to take place. In Chorrillos and elsewhere in Peru. The following parts present some rudiments, which related to the artisanal fisheries of Peru, are possible to implement and adopt.

5.1 ABFM's

Area-based Fisheries Management Measures (ABFM's) are conservation and/or fisheries policies that are spatially defined and formally established with the goal of achieving one or more desired fisheries outcomes. Many modern fisheries management plans and regulations use ABFM's, and their results are usually linked to resource sustainability. States should put management measures in place to stop overfishing and make sure that fishing effort is in line with ecosystems' sustainable use and productive capacity, as per the FAO Code of Conduct for Responsible Fisheries. When the conservation benefits produced are in line with their stated and intended primary or secondary objectives, ABFM's support primary or secondary conservation outcomes. ABFM's support complementary conservation when management actions are specifically designed to support the sustainable harvest of the target species while also successfully easing pressure on ecosystem function and biodiversity (Petza et. al., 2023).

There are three main types of restrictions on ABFM's: time (areas permanently or temporarily closed to fishing activities), space (closure of all or part of a fishing area or Exclusive Economic Zone) and type of fishing activity (restrictions may apply to all fishing activities in an area or to specific gear or socio-economic categories).

Many ABFM's may arise due to the different combinations of the three options and the degree of restrictions. While the ratification of international fisheries agreements and harvest control rules have also contributed significantly to the reduction of overfishing and rebuilding biomass, fisheries management measures, in particular rebuilding plans, have had particularly strong effects on reversing overfishing (ibid.).

The implementation of ABFM's would be an easy and effective method to immediately secure the marine ecosystem and support the recovery of Biomass, as well as for all marine organism, who are affected by the fishing activities.

5.2 IMTA

The growing demand for fish, combined with global population growth, makes efficient and sustainable aquaculture highly relevant to ensure global food security (Loayza-Aguilar et.al., 2023).

Based on global trends, the development of industrial mariculture on the coasts of Peru will continue to increase, which is primarily characterized by monospecific. This has an impact on ecosystems, as organic matter can degrade the benthic system, promoting eutrophication, which will have negative consequences for biodiversity and fishery resources. This could lead to unsustainable practices in the long-term.

The current contradiction in aquaculture is that, although aquaculture farms depend on the environment and the performance of ecosystems, the management of these systems is mainly determined by monocultures, which damages and destroys the ecosystem and the environment, as is the case in Peru.

It is therefore necessary to apply methods that can ensure both the protection of natural capital and profitability. Monoculture practices cannot reconcile this, whereas integrated and sustainable practices are desirable and necessary to keep aquaculture healthy and bio diverse. A concept of the Ecosystem Approach to Aquaculture (EAA) has already been derived from this problem. This concept aims to coordinate sustainable development, equity, resilience of interrelated socio-ecological systems and to implement these activities in a broader ecosystem. Building on the EAA, there is a trend to implement so-called IMTA.

From this perspective, it is important to implement new production models in fisheries that are based on sustainable practices, such as Integrated Multi-Tropical Aquaculture (IMTA). This combines greater efficiency, competitiveness, and profitability with ecological balance. IMTA represents the integration of four types of aquacultures: feed, in the form of fish, organic extraction (filter-feeding and suspension-feeding invertebrates), in-organic extraction (macroalgae) and sediment extraction such as suspension-feeding and sediment-feeding invertebrates. For this integration, it is important to harmonize the relationship between the species and their specific functional roles and the abiotic conditions of the ecosystem. The aim of this strategy is to utilize the advantages of the different tropical levels, to diversify activities and thus to combine sustainability with economic profitability. A positive side effect could also be the improvement of the image of the aquaculture sector.

IMTA has already been successfully applied in Dalian (China) and Canada (Loayza-Aguilar et. al., 2023).

5.3 A transboundary issue

A Transboundary Diagnostic Analysis (TDA) and a Strategic Action Program (SAP) for the GEF-UNDP Humboldt Project have been developed because of the cooperative efforts between Chile and Peru, as well as their respective fisheries research institutions, IFOP (The Fisheries Development Institute) and IMARPE (The Institute of the Sea of Peru). These efforts have been backed by national protected areas authorities and environmental ministries. Through a thorough analysis of transboundary issues and the development of focused strategies, these initiatives seek to address the urgent concerns affecting the Humboldt Current System's (HCS) health. The findings from the TDA and SAP are summarized in this translated text, emphasizing the primary issues found, their socio-economic and environmental ramifications, and the suggested solutions. The focus areas highlight the need for collaborative management approaches to protect marine ecosystems and advance sustainable development in the region. These include the suboptimal use of fishery resources and anthropogenic disturbances to marine habitats.

To create a Transboundary Diagnostic Analysis (TDA) and a Strategic Action Program (SAP) for the GEFUNDP Humboldt Project, Chile and Peru, along with their respective fisheries research institutions, IFOP (The Fisheries Development Institute) and IMARPE (The Institute of the Sea of Peru), have worked with the authorities for national protected areas and environmental ministers.

The SAP described several goals and steps to address the issues found in the system, while the TDA listed the primary concerns affecting the Humboldt Current System's (HCS) health.

The TDA's main objectives were to identify transboundary problems (TPs), characterize, assess, and evaluate their socioeconomic and environmental effects, as well as ascertain their root causes. Anthropogenic disturbance of marine habitats (TP2) and suboptimal use of fishery resources (TP1) were the two main issues found.

Weak governance, inadequate or nonexistent monitoring, control, and surveillance (MCS) sys-

tems, a lack of democratic processes in resource management and decision-making, and unfavorable incentives that promote prolonged participation in the industry with increased overfishing are the main causes of TP1. The misuse of fishery resources has the following negative effects on the environment: a) a reduction in biomass and population structure; b) a modification of trophic relationships in ecosystems; and c) a modification of biodiversity, environment, and ecosystem resilience.

For TP1, the following socioeconomic effects were noted: A decline in net income and job prospects; B a reduction in the availability of fisheries resources for food security.

Regarding TP2, various forms of land and marine pollution, such as organic matter, hydrocarbons, heavy metals, microbiological compounds, and solid and liquid chemical waste, have an impact on the environmental conditions of the HCLME. These pollutants have social and economic effects on human and ecosystem health, as well as affecting productivity in coastal areas. Therefore, the decrease in fish biomass and HCLME productivity is also a result of this transboundary issue. For TP2, the ensuing environmental effects were noted: Increased mortality in the early life stages of biological resources; a) deterioration of water quality and marine sediments; b) mortality of marine animals; c) alteration of biodiversity and reduction of ecosystem resilience; d) high amounts of unintended catch (bycatch and discards).

The following socioeconomic effects were also noted: a) losses in the economy, employment, and competitiveness; b) a decrease in the food security of marine products. Moreover, as previously mentioned, the HCLME's natural climate variability – such as ENSO – as well as climate-related manifestations affect productivity and bring about changes across all trophic levels (Dimitri et. al., 2016).

To successfully implement these complex and varied issues, it is very important to mention, that building translocal management initiatives is a crucial element in developing long-term adaptation measures that should be subsequently implemented by local and national government agencies in order to resilience to environmental change (Kluger et. al., 2019).

6 Summary

Pelagic fish productivity in the HCLME is exceptionally high, particularly in the Peruvian buoyancy system. Marine ecosystems are predicted to be impacted by acidification and oxygen depletion brought on by changes in atmospheric, oceanic, and continental interactions brought on by global warming.

Peru is impacted by extreme weather events caused by El Niño and La Niña, which are linked to global warming and occur on South America's west coast. These occurrences affect communities and the economy, especially artisanal fishermen whose livelihoods are disrupted.

Although artisanal fisheries face difficulties, they make a substantial contribution to Peru's GDP. A lack of institutional support, price fluctuations, and informality all affect the financial stability of artisanal fishermen. Artisanal fisheries are essential for food security despite their difficulties. Based on a price elasticity analysis, it is evident that institutional recognition and management committees are important factors in both countries. Overfishing and price fluctuations are caused by Peru's lack of institutional support, whereas Chile's management committee works to keep prices steady.

Political issues include the need for co-management mechanisms to be established, artisanal fisheries to be included in decision-making, threats to the ecosystem to be understood, and policy changes to be made to address informality. The susceptibility of Peruvian artisanal fishermen is a result of institutional flaws that necessitate strengthening governance and decision-making processes.

Unsustainable use, a lack of legal recognition, and poor management are some of the issues associated with Peru's small-scale fishing industry's informality. Informal labor relations and illegal vessel construction are examples of informal practices that impact workers' rights and vulnerability in times of crisis such as the COVID-19 pandemic.

With intertwined social, cultural, ecological, and economic facets, fishing communities are intricate socio-ecological systems. Social capital is essential to these communities' resilience and is impacted by elements like trust and organizational strength. Evaluations of wellbeing show how susceptible small-scale fishing communities are to outside influences.

Political issues include the need for co-management mechanisms to be established, artisanal fisheries to be included in decision-making, threats to the ecosystem to be understood, and policy changes to be made to address informality. The susceptibility of Peruvian artisanal fishermen is a result of institutional flaws that necessitate strengthening governance and decision-making processes.

The intricate interplay among ecological, economic, social, and political factors highlights the difficulty in maintaining Peru's marine ecosystems and the artisanal fishermen's livelihoods.

Furthermore, it should be emphasized, once again that management systems for Peruvian artisanal fisheries are key factor in actively shaping their conditions today and in the future. Which management approach suit which local communities would have been determined in further work. However, every artisanal fishing community should have at least one crisis management system in place to address environmental impacts such as ENSO, ocean acidification, marine heatwaves, and the current and future effects of overfishing. It would also be an easy, cheap, and effective way to identify and set ABFMs to prevent, or at least reduce, further ecological damage. Furthermore, the OSPA in Peru has shown positive changes for artisanal fishers and that this does not require financial capital, or a low budget to establish such "unions" locally and trans-locally. Therefore, artisanal fishers should be encouraged to get organized and work together on improvements, problems, disagreements, etc. and together de-

mand a higher level of commitment, respect, visibility, and integration from the government and authorities.

Without this, all management approaches and improvement potentials may be valuable theoretical approaches, but they cannot be implemented without active action and stronger collective commitment, as the government and authorities will remain "lazy" and the potential for shaping the country will remain untapped by artisanal fisheries.



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Traditional ecological knowledge – a key element of sustainable development

Author: Nina Giordano

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1 Introduction

Over forty years ago, physicist and deep ecologist Capra indicated: *"Ecosystems sustain themselves in a dynamic balance based on cycles and fluctuations, which are nonlinear processes. Linear enterprises, such as indefinite economic and technological growth will necessarily interfere with the natural balance and, sooner or later, will cause severe damage. Ecological awareness, then, will arise only when we combine our rational knowledge with an intuition for the nonlinear nature of our environment. Such intuitive wisdom is characteristic of traditional, non-literate cultures, [...] in which life was organized around a highly refined awareness of environment."* (1982, p. 41) Since then, natural ecosystems are being pushed beyond their limits with human societies confronting unprecedented challenges like climate change, species extinctions and pollution. Various approaches like ecological restoration, conservation, renewable energies and carbon

sequestration have been deployed to tackle the global ecological crisis. Yet, a crucial element remains largely overlooked: integrating local and traditional ecological knowledge as well as indigenous perspectives with modern western science to foster environmentally sustainable solutions. (Hoagland, 2016)

This student research paper explores how the concept of traditional ecological knowledge is defined in science, law and policy literatures and what contribution place-based communities such as the artisanal fishery of Chorrillos can serve for improving cooperative environmental and natural resources management. The method applied aims to evaluate existing literature, synthesizing ideas, and critically analyzing the status quo. Subsequently, the paper will provide recommendations for integrating ecological traditional knowledge in legal frameworks and practice through sound policy aimed at sustainable development.

2 Traditional ecological knowledge

Traditional ecological knowledge (TEK) refers to accumulated expertise, practices, and ideas held by indigenous as well as local communities, received, preserved, and transmitted orally from one generation to another (Casi et. al., 2021). Berkes, an applied ecologist has defined it as "a cumulative body of knowledge, practice, and beliefs, evolving by adaptive processes and handed down through generations by cultural transmission, about the relationship of living beings (including humans) with one another and with their environment". (2012, p. 7) Even though there is no precise definition, it's widely accepted that the term "traditional" doesn't exclusively denote something relegated to the past. Instead, it pertains to collected wisdom over a long duration, constantly changing and being up-dated. Furthermore, TEK transcends mere descriptive literature and defies categorization into distinct disciplines like biology, geography, or chemistry (Casi et. al., 2021).

2.1 Local, indigenous and traditional ecological knowledge

Ethnoecology, as a subfield within ethnology and closely related to ethnobiology, is a field of study that focuses on the ways in which different human cultures and indigenous peoples perceive, interact with, and manage their environments. It involves the examination of how various societies understand and utilize their natural surroundings, including their knowledge of plants, animals, ecosystems, and environmental processes (Putra, 2021). Within the realm of ethnoscience, three terms – local ecological knowledge (LEK), traditional ecological knowledge (TEK), and indigenous knowledge (IK) – are often used, each capturing distinct facets of the dynamic connections between long-standing traditions and practices of certain regional, indigenous, or local communities.

LEK refers to the knowledge about local ecosystems, held by a specific group of people such as fishers and farmers regarding their local environment. It encompasses insights into the behaviors and development of animals, plants and habitats, often accumulated through direct and prolonged interaction. It is context-specific, drawing on the experiences and observations of individuals within a particular locale.

Within the realm of ethnoscience, three terms – local ecological knowledge (LEK), traditional ecological knowledge (TEK), and indigenous knowledge (IK) – are often used, each capturing distinct facets of the dynamic connections between long-standing traditions and practices of certain regional, indigenous, or local communities.

TEK broadens the scope to include knowledge which was passed down through multiple generations, living in close contact with nature, It embodies the wisdom, practices and beliefs concerning the environment that have been transmitted orally or through cultural traditions. TEK reflects a long-term, collective understanding of ecological dynamics and is deeply intertwined with cultural identity (Fischer et. al., 2015).

Indigenous Knowledge (IK) is often considered a subset of TEK. However, while TEK may include knowledge from various cultural groups, IK specifically focuses on the unique perspectives and practices of indigenous people. It encompasses not only practical insights into natural resources but also incorporates spiritual, cultural, and social dimensions. It emphasizes the reciprocal relationship between humans and nature, recognizing the interconnectedness of all living beings (The World Bank, 1998).

2.2 The six faces of TEK

Over the years, several authors have tried to identify and contrast the environmental knowledge held by aboriginal, native and indigenous people with the knowledge system employed by colonizer. Some have categorized knowledge elements into groups that collectively constitute the TEK of a community. For instance, Houde (2007) envisaged six interconnected and mutually evaluative

"faces" of TEK (Figure 8), to delineate areas of similarity and differences with Western science (WS). (Das et. al., 2023) He visualized TEK as a pentagon anchored by its cosmological foundation, which gives meaning to the knowledge system. The first three faces at the bottom are typically more readily grasped by non-Natives and valid in a non-TEK context. The remaining three faces, which involve ethics and values, cultural identity, and cosmology, are particularly aligned with TEK and potentially bear fundamental differences from the mainstream values that are encoded in western institutions. (Houde, 2007)

The most recognized manifestation of TEK is specific and factual observations, synthesized information as well as empirical understanding of natural phenomena. This includes detailed data on various aspects of the environment, such as ecological patterns, seasonal cycles, animal behavior and the abundance of wildlife. This face entails not only passive observation but also active participation, where community members intimately interact with their surroundings through subsistence activities such as hunting, fishing, farming, and gathering. It also involves comprehending the interrelationships between species, the connections within the biophysical environment, and the spatial distributions and historical trends of population patterns. TEK holders possess a nuanced

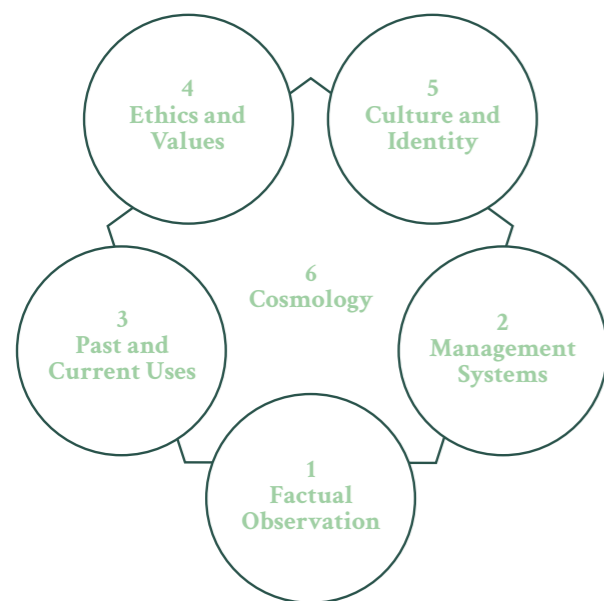


Figure 8: The six faces of TEK (Houde, 2007, p. 5)

understanding of ecological interplay, discerning subtle cues and indicators that inform decision-making regarding use of resources, agricultural practices and ritual ceremonies (Houde, 2007). This face aligns closely with resource management approaches and proves highly valuable in environmental impact assessments, risk evaluations and managing vulnerable resources. (Das et. al., 2023)

According to Houde, TEK largely serves the purpose of subsistence. Therefore, a prominent focus in TEK research revolves around resource management systems and its alignment with local environments. Consequently, the second face pertains to the methodologies aimed at fostering the sustainable utilization of local natural resources. This includes practices such as pest control, conservation techniques, diverse cropping patterns and mechanisms for assessing resource status. TEK-based management systems typically incorporate a holistic understanding, considering not only the ecological aspects but also the social, cultural, and spiritual dimensions of resource use. These management systems often employ a combination of traditional practices, customary laws, and community governance structures to regulate resource use. For instance, mechanisms such as seasonal harvest restrictions, rotational farming techniques and community-based monitoring programs. Furthermore, native communities actively engage in collaborative research and conservation partnerships, integrating traditional and scientific knowledge systems to enhance the effectiveness of conservation efforts (Houde, 2007).

The third dimension acknowledges the time facet of TEK. It reflects knowledge of the past and current uses of the environment. Firstly, it includes insights into historical land-use practices, such as traditional farming methods, hunting techniques and fishing practices. And secondly, it incorporates cultural heritage, encompassing oral traditions and historical narratives. These narratives also reinforce cultural identity and give a sense of family and community. This face underscores the dynamic relationship between indigenous peoples and their environments, advocating for the recognition and respect of traditional knowledge in modern conservation and resource management efforts. It is often revealed by First Nations in the context of

land claims' negotiations (Houde, 2007). Unfortunately, significant limitations of this aspect arise from potential misinterpretation resulting from limited control over information derived from oral history and uneven distribution of benefits stemming from the knowledge (Das et. al., 2023).

The fourth manifest relates to value statements about "how things should be" and encompasses the ethical principles and cultural values that guide indigenous communities' interactions with mother nature. This aspect emphasizes the intrinsic connection between human well-being, environmental ethics and spiritual harmony. Traditional cultures often emphasize values such as respect for all life forms and collective responsibility for maintaining ecological balance. This holistic worldview challenges anthropocentric notions of resource exploitation and advocates sustainable practices. Incorporating ethics and values into resource management requires recognizing and respecting diverse cultural perspectives and incorporating Native governance structures and decision-making processes. It involves fostering dialogue, collaboration, and mutual learning between local communities and state institutions to develop inclusive and equitable policies that honor both traditional wisdom and modern scientific knowledge. However, these values may not always align with the dominant discourse. Furthermore, it can be said that this face of TEK is currently not well implemented in state resource management (Houde, 2007).

The fifth aspect recognizes the importance of language and images of ancient cultures that serve as vectors for cultural identity. It has been argued that the essence of Native cultures resides in the land, and if the land undergoes significant transformation or loss, cultures and communities may similarly vanish. Land serves as repository of stories as well as heritage, therefore safeguarding these sites is essential for the enduring preservation of Native culture (Houde, 2007). Through TEK, communities maintain a profound connection to their ancestral lands, fostering a sense of belonging and continuity across generations. The preservation and revitalization of TEK contribute to the revitalization of indigenous cultures and the assertion of indigenous rights to self-determination and sovereignty. (Das et. al., 2023)

The final identifiable dimension of TEK is a culturally rooted cosmology, which serves as the foundation of all the other faces and is inherently intertwined with them. It is considered more of philosophy than an ideology and delves into the spiritual and metaphysical dimensions of indigenous understanding (interpretation or representation) of the environment. The cosmology elucidates the interconnectedness between humans, nature and the cosmos, shaping belief systems, rituals and practices that govern human-nature relationships. Many anthropologists have delved into this dimension of TEK, aiming to understand how Native people understand human-nonhuman animal relationships and how these perceptions directly impact social dynamics, obligations towards fellow community members and resource management practices. By recognizing and respecting indigenous cosmologies, we can deepen our understanding of human-environment relationships and cultivate more holistic approaches to conservation and stewardship (Houde, 2007).

2.3 Actors of TEK

TEK encompasses a diverse array of actors, each playing a unique role in the preservation, transmission and development of this body of knowledge. It is important to note that the actors involved vary significantly based on cultural and regional contexts. In general, however, the following internal actors can be captured. Indigenous and local communities, often the primary holders and practitioners of TEK, accumulate wisdom through generations of living closely connected to their natural surroundings. In particular, elders and traditional leaders often play a crucial role in passing down TEK. Shamans, healers and spiritual leaders are repositories of wisdom and experience and hold knowledge about the spiritual connections between humans and the environment. Furthermore, community members actively engage in traditional practices related to agriculture, hunting, fishing and herbal medicine, and therefore contribute to the development and continuity of TEK. Artisans and craftsmen, through their traditional crafts, possess knowledge about sustainable resource use and material selection.

Outside the communities, storytellers and historians support the transmission of important in-

formation about ecological processes and the relationships between humans and nature. External researchers and scholars help to preserve TEK by collaborating with indigenous and local communities to document, understand and validate the traditions (Houde, 2007). The cooperation between scientific researchers and TEK holders is essential for developing effective strategies for sustainable resource management. Integrating both scientific and traditional perspectives can lead to more comprehensive and culturally sensitive approaches to environmental issues (Berkes, 2007). Additionally, some government and policy agencies as well as non-governmental organizations work with communities to integrate TEK into conservation and biodiversity protection initiatives. It is particularly important to convince stakeholders in the economic and political sector, including local authorities and policymakers of the benefits of TEK and its influence on environmental protection, by integrating and turning them into ambassadors.

2.4 Relation between TEK and Western science

While the significance of TEK has gained recognition on the global stage and publications on the subject have surged, the relationship between WS and traditional knowledge remains controversial (Berkes, 2007). They represent two distinct but interrelated approaches to understanding the natural world. WS, rooted in empirical observation, experimentation, and theoretical frameworks, has its origins in the Enlightenment era and has since become the dominant paradigm globally. It follows the steps of developing hypothesis, testing hypothesis, analyzing results and defining conclusions. Furthermore, it emphasizes objectivity, quantifiability and the use of specialized methodologies to study and explain natural phenomena.

In contrast, TEK is derived from the accumulated wisdom, practices, and beliefs of Native communities and is often an integral part of a culture (Hoagland, 2016). Although there are many differences between the two knowledge systems, there are similarities that should not be overlooked. Both are founded on the principles of observation and the formulation of concepts derived from these observations. At the same time, findings are constantly verified through repetition and verification, inference and recognition of pattern events.

Additionally, many of the guiding principles established by ancestral resource managers align with rules derived from ecological science (Das et. al., 2023). Even though TEK is often perceived in conventional WS as lacking a quantitative, systematic approach to measurement, not all researchers are opposed to it. Botanists were among the first scientists to show an interest in TEK during the 18th century. It largely remained within their domain throughout the nineteenth and twentieth centuries. However, the 1990s witnessed a revitalized and heightened interest in TEK. Nowadays, it has become a highly-valued source of information as part of numerous research disciplines such as ecology, archaeology, medicine, agronomy and climatology. At the same time, various actors recognized that a successful approach must be multidisciplinary, incorporating the participation of local communities by bringing in Natives as collaborators in scientific projects and conservation efforts (Royer, 2016). Experts in WS are increasingly acknowledging that TEK can offer insights that are absent in current research and by combining the two forms of knowledge, capable of enhancing each other's strengths through multidisciplinary approaches for mutual benefit (Hoagland, 2016). And last but not least, blending WS and TEK offers a comprehensive approach, potentially serving as the foundation for addressing our most intricate environmental challenges. Neglecting either one would make the environmental issues worse. Put plainly, science devoid of wisdom lacks conscience (Hoagland, 2016).

3 Roles and relevance of TEK in natural resource management and marine conservation

Since the economic globalization has progressed, there has been a notable trend towards the homogenization of knowledge and practices related to the utilization of natural resources. Standardized approaches to resource management and exploitation have become more prevalent, often prioritizing efficiency and profit over the preservation of biodiversity and cultural heritage. Furthermore, resource managers and state officials often view knowledge, not generated by Western-trained scientists, as secondary or unreliable (Arico and Valderrama, 2010).

Over time, especially since the widespread acceptance of "sustainable development" concepts at the Rio Summit in 1992, development paradigms have transitioned from a narrow, segmented view to a broader, holistic approach emphasizing the promotion of "knowledge dialogues" among diverse knowledge systems (Arico and Valderrama, 2010). This has resulted in an increased awareness of the crucial role that TEK plays in sustainable development (Naureen, 2020). For generations, traditional communities have actively managed ecosystems to ensure survival and well-being. The management includes various activities, such as agricultural production, health services, maintenance and adaptation measures such as water and environmental management, as well as adjustments to climate change and variability (Pisupati and Subramanian, 2010). Their traditional management systems have evolved to harmoniously blend in with regional ecosystems. This integration is so profound that ecosystems and cultivated landscapes can be regarded as "biocultural" entities (Arico and Valderrama, 2010).

Therefore, the use of TEK, in the guise of ecological management practices, is acknowledged as a potent conservation tool. In this context, community support consistently proves pivotal in sustaining conservation plans over the long term. Furthermore, community-based management plans tend to work better than top-down (usually Western) approaches to conservation. Due to their holistic perspective on the environment, many indigenous communities recognize interconnections among ecological processes, species interactions and abiotic factors shaping species biology. This understanding of environmental linkages stems from extensive, longstanding engagement with specific regions and may not be readily apparent to those lacking intimate familiarity with the area. Consequently, the inclusion of TEK elements in research programs is essential. Not only can native and local people give access to location-specific knowledge, but also enhanced understanding of environmental connections and empowerment through local capacity building (Drew, 2005). However, it's crucial to highlight the difference between TEK and its implementation via customary management practices, whether conservation-oriented or not. While these con-

The inclusion of Traditional Ecological Knowledge elements in research programs is essential. Not only can native and local people give access to location-specific knowledge, but also enhanced understanding of environmental connections and empowerment through local capacity building.

cepts are interconnected, effective land and water management relies on the prudent utilization of knowledge. Consequently, TEK serves as the intellectual foundation for such practices, while customary ecological management practices represent strategies grounded in applied TEK. Numerous efforts, especially in marine contexts, have concentrated on incorporating customary ecological management practices into conservation strategies (Drew, 2005).

Local and traditional knowledge held by fishers, such as the artisanal fishing community of Chorrillos in Peru, represents a significant yet underutilized resource for understanding the dynamics of coastal ecosystems, including both continuity and change. Fishers' extensive experience in coastal environments, combined with their direct interactions enriches our understanding of these ecosystems over time (Fischer et. al., 2015). With increasing acceptance among scientists and managers that coastal fisheries require ecosystem-wide management rather than focusing solely on individual species populations, the lack of understanding regarding coastal fishery ecosystem processes becomes increasingly apparent. In the marine realm, climate change presents numerous risks, including heightened flooding, species extinction and intensified effects of natural disasters. Additionally, ongoing ocean acidification could profoundly impact marine ecosystems and the services they offer. Given these challenges,

it's imperative to leverage local knowledge of the marine environment as a crucial element in adaptive management strategies (Arico and Valderrama, 2010).

The greater and more refined ecological knowledge fishers, resource managers and scientists have, the more likely their ability to make precise predictions regarding the status and distribution of fishery resources. In this regard, both WS and TEK share similar objectives and should therefore push collaborations forward (Fischer et. al., 2015). To achieve genuine two-way knowledge exchange, the platforms and venues for fostering fishery knowledge should be democratized. Fishers are likely to contribute more knowledge and engage further in applying ecological insights to management when they feel assured that their contributions will be heard and valued (Fischer et. al., 2015).

Conservation efforts continuously adapt to confront the diverse and ever-changing threats to the environment. In this ongoing evolution, it's imperative to explore novel techniques and disciplines to effectively address these challenges (Drew, 2005). In this context, knowledge is pivotal in fostering sustainable relationships between society and the biosphere. It not only drives practical advancements like technology but also shapes societal values and informs national policies. The challenge lies in implementing a paradigm shift giving emphasis to management systems that embrace diverse knowledge and practices, moving away from standardized approaches. Promoting a mosaic of traditional management systems, in which indigenous and native people are equal, is crucial. Ultimately, traditional, local and scientific knowledge systems must engage in a genuine dialogue to identify adaptive solutions for sustainable development in response to evolving natural and socio-economic conditions (Arico and Valderrama, 2010).

4 TEK in policy and law

But how exactly is TEK legally protected, and what are suitable measures for acknowledging and promoting this body of knowledge? The following chapters delve into global and national legal frameworks as well as ways to preserve TEK, followed by recommendations for sound policy-making in the ecology of sustainable development.

The recognition of TEK was initially highlighted in the Brundtland Report of 1987. This pivotal document globally acknowledged the significant potential contribution of Indigenous peoples in addressing pressing environmental challenges.

4.1 Protection and legal framework

Once TEK has been disseminated beyond the community, those recipients might further distribute it to third parties who haven't consented to adhere to social conventions and aren't legally obligated to do so. Regardless of the good intentions, established protocols and best practices, the shared knowledge isn't regulated by customary laws or community aspirations. Instead, it falls under foreign legal frameworks such as public domain, intellectual property and freedom of expression. Therefore countries have begun to put into place laws and regulations that protect the transfer of TEK to third parties (Hardison and Williams, 2013).

The recognition of TEK was initially highlighted in the Brundtland Report of 1987. This pivotal document globally acknowledged the significant potential contribution of Indigenous peoples in addressing pressing environmental challenges. The UN Declaration on the Rights of Indigenous Peoples, adopted by the UN Human Rights Council in 2006, emphasizes two main points:

a) Indigenous peoples have the right to not only preserve, control, protect, and develop their cultural heritage but they also hold intellectual property rights over these assets.

b) States are obliged to collaborate with indigenous peoples in implementing effective measures to recognize and protect these rights.

Furthermore, Principle 22 of the Rio Declaration on Environment and Development acknowledges the crucial role of native people in

management as well as development and advocates for the recognition of their cultural identity and interests in participating towards sustainable development. Since 2010, the Nagoya Protocol is the leading global framework for safe-guarding TEK and ensuring fair benefit-sharing from genetic resource use. This legally binding agreement mandates that access to TEK linked with genetic resources requires prior informed consent and equitable participation. The Framework Convention on Biological Diversity, under Article 8 (j), highlights the significance of acknowledging IK and confirms TEK as a crucial "technology" for implementing effective biodiversity conservation and sustainable practices under Article 16 (Naureen, 2020). The rights of indigenous peoples within the right to development (Article 1 of the Declaration on the Right to Development), are closely associated with various overarching international legal standards and principles. These include participation rights, the right to self-determination, and the recognition and application of collective rights related to land and natural resources (Naureen, 2020)

Additional major instruments that acknowledge native peoples' right to protect TEK are the "Universal Declaration of Human Rights" (Article 27), the "International Covenant on Economic, Social and Cultural Rights" (Article 15, paragraph 1 (c)), the "International Labour Organisation Convention No.169 concerning Indigenous and Tribal Peoples in Independent Countries" (Articles 13, 15, 23) and the Agenda 21 (Paragraph 26.1). (Aboriginal and Torres Strait Islander Social Justice Commissioner, 2009)

On the national level of Peru, the proposal for the protection of TEK outlines in its first article, that the Peruvian government has to recognize indigenous peoples' rights to determine the fate of their collective knowledge. This acknowledgment is based in the constitutional right to intellectual creativity and property, as stated in article 2(8) of the National Constitution of 1993. Additionally, "Decision 391" recognizes Native communities' rights to innovations and practices in Article 7. Law No. 26839, concerning the conservation and sustainable use of biological diversity, enacted in 1997, mandates in Article 24 that the knowledge and innovations of these communities

form part of their cultural heritage, necessitating mechanisms for their regulation and dissemination (Paden, 2007).

As for preserving and promoting TEK, communities and actors involved can take various actions to raise awareness about the value of TEK: adequate documentation of local practices (eg. data-banks or libraries), education and transmission, cultural revitalization, networking and collaboration but also observing and signing agreements so that TEK is not misused and benefits return to the community from which they originate (The World Bank, 1998).

4.2 Sound policymaking

The achievement of the UN Sustainable Development Goals (SDGs) and other globally agreed development objectives heavily relies on a shared understanding of the fundamental principles of effective, sustainable governance (CEPA, 2018). Therefore, institutions and policy-makers play a crucial role to meet these targets. Unfortunately, public sector reforms remain a major challenge in many countries. But how to improve on the governmental capacity to listen, to analyse, to deliver and to leave no-one behind remains the challenge.

In order to address this issues, the Committee of Experts on Public Administration (CEPA) has formulated a serie of principles regarding effective governance for sustainable development. These voluntary principles aim to offer practical, expert advice to interested nations on various governance obstacles linked to the implementation of the 2030 Agenda (CEPA, 2019). These fundamental principles are applicable to all public institutions, including executive and legislative organs, as well as sectors like security, justice, independent constitutional bodies and state corporations (CEPA, 2018). The principles are designed to not only engage the relevant UN organizations, regional organizations as well as professional and local communities, in an inclusive manner, but also to provide a baseline for responsible policy-making (CEPA, 2019).

One of the first three principles that focus on effectiveness, is sound policy-making. It refers to well-crafted and effective strategies or guidelines designed to address specific issues or achieve par-

tical goals in a manner that is rational, evidence-based and conducive to positive outcomes. According to CEPA there are eight pathways to sound policy-making: "Strategic planning and foresight, regulatory impact analysis, promotion of coherent policymaking, strengthening national statistical systems, monitoring and evaluation systems, science-policy interface, risk management frameworks and data sharing", (CEPA, 2019) while promoting the common good and long-term sustainability.

Sound policy offers multiple advantages for placed-based communities and Native people: Firstly, it can facilitate the recognition and validation of TEK within legal and regulatory frameworks. This involves acknowledging the cultural significance and validity of IK systems alongside scientific evidence. By legally recognizing TEK, policymakers can ensure its protection, respect its ownership rights and provide mechanisms for its incorporation into decision-making processes. Secondly, sound policy can promote collaboration and co-management arrangements between government agencies, local and indigenous communities and other stakeholders. By fostering partnerships based on mutual respect and shared governance, policies can enable the participation of local communities in natural resource management. This can lead to the co-design and imple-

Policy support is crucial for TEK's recognition in science and society. Sound policy may serve as a vital bridge between state, national as well as regional economic actors, policymakers and local communities such as the artisanal fishers in Chorrillos in recognizing the importance of their practices and knowledge on society, government and science.

mentation of policies that integrate TEK with scientific approaches, leading to more holistic and effective resource management strategies. And last but not least, sound policy can incentivize the incorporation of TEK into land-use planning, conservation strategies, and sustainable development initiatives.

5 Conclusion

This paper explored TEK and identified its six faces, each of which is an important dimension to consider in the exchange of cultural values, legal complexities and risks to environmental sustainability. Furthermore, TEK was compared with the modern scientific system and areas as well as topics of convergence and potential synergy of collaboration between the two bodies of knowledge were presented. However, it is important to bear in mind that (what has been reported) remains incomplete, precisely because combining TEK and WS is a complex attempt that requires group-based interdisciplinary collaboration. Participation of local and indigenous people should not be limited to impact assessments for projects, but should also take place in the strategic planning phase. Because these communities may hesitate to share their knowledge due to a history of exploitation, inadequate recognition and respect for their values and rights, partnership and co-management arrangements will have to be designed in such a way that locals can be involved from the initial stages of decision-making processes and that TEK is properly safeguarded. Therefore, policy support is crucial for TEK's recognition in science and society, fostering a broader paradigm for integrating diverse knowledge systems. Latin American countries in particular, face multiple challenges in implementing protections for TEK, due to the lack of political will, insufficient coordination, limited financial resources and the adverse impact of multinationals (Paden, 2007). Sound policy may serve as a vital bridge between state, national as well as regional economic actors, policymakers and local communities such as the artisanal fishers in Chorrillos in recognizing the importance of their practices and knowledge on society, government and science. Effective policy mechanisms can provide the necessary framework for acknowledging, validating, and integrating TEK into decision-making

processes and can promote a more inclusive and holistic approach to environmental management, conservation and sustainable development.



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Strategy to promote the Human Right to an adequate standard of living for Peruvian artisanal fishers according to Article 25 of the Universal Declaration of Human Rights

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1 Introduction

This term paper delves into the human right to an adequate standard of living, a fundamental principle articulated in the Universal Declaration of Human Rights (UDHR). The specific context under examination is the livelihood of artisanal Peruvian fishermen. The inquiry centers on understanding the prevailing standard of living for these individuals and exploring avenues for its optimization in harmony with both the environment and legal frameworks. In particular, this paper aims to identify and propose solutions for enhancing the living standards and working conditions of artisanal Peruvian fishermen, aligning with the principles of human rights, environmental sustainability, and legal compliance.

2. Universal Declaration of Human Rights

The Universal Declaration of Human Rights (United Nations, 2015) (UDHR) is a seminal document

adopted by the United Nations on December 10, 1948. It asserts that every individual, regardless of their origin, race, religion, or other characteristics, is entitled to the fundamental rights and freedoms outlined in the declaration. Comprising 30 articles, the declaration covers a broad spectrum of rights, including the right to life, liberty, freedom of opinion, work, education, and protection against discrimination. Fundamental principles enshrined in the UDHR include equality, freedom, justice, and human dignity. This declaration has played a pivotal role in shaping the international human rights framework, influencing the creation of subsequent treaties and conventions. As a fundamental reference point, the Universal Declaration of Human Rights actively contributes to the promotion and protection of human rights globally.

2.1 Protection of Human Rights

The protection of human rights is ensured through various mechanisms at international, national, and local levels (United Nations, 2015). Internationally, fundamental human rights standards are established through international agreements ratified by member states, often under the auspices of the United Nations. These agreements obligate states to respect, protect, and ensure the human rights enshrined in them. At the national level, most countries implement human rights through national legislation. Constitutions, laws, and legal structures create a framework aimed at ensuring the protection and promotion of individual freedoms and fundamental rights. Courts play a crucial role in interpreting and applying these laws to ensure accountability for human rights violations. In addition to legal instruments, civil society organizations and human rights defenders contribute to protecting human rights. NGOs monitor compliance with human rights standards, raise awareness, and actively advocate for the rights of vulnerable communities and individuals. An example of NGO projects are on the "GlobalGiving" platform (www.globalgiving.org); they support the connection of non-profits with donors and companies. Right now "MarFund" is collecting money to empower fishing communities in the MAR reef on the "GlobalGiving" platform.

Participatory approaches, involving affected communities in decision-making processes, are also crucial. Participatory methods ensure that political measures take into account the needs and perspectives of local people.

Overall, securing human rights requires comprehensive collaboration among governments, international organizations, civil society, and the broader population to foster a culture of respect and protection for the fundamental rights of every individual. As an example, Amnesty International supports human rights educators by providing manuals (Amnesty International, 2011).

In Peru, the protection of human rights is ensured through various mechanisms at both national and international levels. The country's constitution and national laws form the legal basis for the protection of human rights, aligning with international agreements such as the Universal Declaration of Human Rights. Peru is a signatory to

numerous international human rights agreements, obligating it to adhere to the standards outlined in these agreements. The National Human Rights Council of Peru monitors the human rights situation in the country and provides recommendations for improvement. Civil society organizations play a vital role in documenting human rights violations, supporting vulnerable populations, and raising awareness of issues. Community participation is essential, ensuring that the needs of affected communities are considered in political decision-making processes. Despite progress, Peru faces challenges such as social inequality and discrimination, necessitating ongoing efforts to promote and secure human rights in the country. Human rights issues in Peru are governmental corruption, unlawful kills, restrictions and violence against journalists, threats against NGOs and lack of information and education (Bureau of democracy, human rights, and labor, 2022).

Human rights violations can be litigated in Peru, where the right to legal protection is a fundamental principle of international human rights instruments. Individuals or groups can file lawsuits before national courts in Peru, citing the national constitution, laws, or international human rights agreements.

Additionally, the option exists to appeal to the Inter-American Court of Human Rights since Peru is a member of the Organization of American States (OAS). The Inter-American Court can handle cases when all national legal remedies have been exhausted.

In certain situations, human rights violations can also be brought before international courts, such as the International Criminal Court (ICC) or other international tribunals. This provides an additional layer of protection for victims of serious human rights violations.

The human right to an adequate standard of living is enshrined in various international human rights documents, including Article 25 of the Universal Declaration of Human Rights and Article 11 of the International Covenant on Economic, Social, and Cultural Rights.

According to this right, every person has the entitlement to a standard of living that ensures health and well-being for themselves and their family. This includes the right to adequate food,

clothing, housing, medical care, and necessary social services.

Governments are required to take measures to ensure that their citizens have access to basic resources necessary for a dignified life. This involves initiatives to combat poverty, provide healthcare, education, and social security. Protecting this human right contributes to reducing social inequalities and improving living conditions for people.

2.2 Standard of living in Peru

The standard of living includes the level of income, comforts and services available in a society. Everyone, especially children and women have social and economic rights. The focus is on well-being and health as well as safety. No one should fall under a certain limit. It is based on article 25 of the Universal Declaration of Human Rights that nobody gets into existential distress and to ensure freedom.

In this case, Maslow's hierarchy of needs can be invoked, how a person fulfils his needs (Maslow, 1943). Maslow's Pyramid of Needs is a theory by Abraham Maslow that represents human needs in a hierarchy. It starts with basic physiological needs, such as food and sleep, followed by security needs, such as shelter and work. Then come social needs, which concern relationships and belonging.

The next level is related to the pursuit of appreciation and recognition, while the highest level is self-actualization, in which individuals strive for personal growth and fulfilment. The pyramid illustrates that the satisfaction of higher needs is only possible when basic needs are met, and serves as a model for human motivation.

In summary, as long as their basic needs are unmet, people primarily focus on fulfilling them. Only after these fundamental needs are satisfied do individual aspirations for personal growth and self-actualization intensify.

In Peru, the human right to an adequate standard of living is anchored in national legislation and international commitments. According to the national constitution and international human rights agreements, including the International Covenant on Economic, Social, and Cultural Rights, every citizen of Peru has the right to a standard of living that guarantees health, well-being, and dignity.

By this you have to keep in mind that standard of living in developing countries is not the same as standard of living in modern. Especially in emerging markets, there are differences between rich and poor (i.e. a high and a low standard) (Kohl, 1998).

The cost of living can be estimated at 535 to 810 euros per month (Numbeo, n. D.). And the minimum wage is 250.74 euros (1,025 PEN) (Lano, n. D.). Of course, this varies greatly depending on your personal lifestyle: costs for rent between 370 and 460 EUR, food for one person between 150 and 300 EUR, mobility between 15 EUR (local transport) and 50 EUR (car excl. fuel).

Furthermore it is important to note that there could also be unplanned costs such as curing an illness. If you have children, there are further costs for school and e.g. clothing and food. Government support is often only available to the poorest sections of the population. Furthermore, costs for entertainment, leisure and insurance have not yet been factored in.

Based on the findings of a 2023 study conducted by Pulso Ciudadano and compiled by Activa Peru, the consideration of implementing a living wage in Peru to meet the needs of the population seems plausible (Activa, 2023). According to this study, an amount exceeding three times the current minimum wage would be necessary to ensure a decent standard of living in a communal setting in Peru. This suggests that the current minimum wage might not be sufficient to adequately cover the cost of living.

There is also the question of how to bring the standard of living into harmony with the environment. It is not realistic to replicate the standard of living of the industrialized countries worldwide. This is because our planet's resources would not be sufficient to both provide for the human population and maintain the stability of ecosystems. The international study "Living Planet Report", published annually by the Global Footprint Network, confirms this: To make the lifestyle of today's Americans possible, it would take five Earths, as was noted in 2014.

Given the fundamental need for an intact environment for a high standard of living, systems scientists such as Elvin Laszlo propose to find a solution by developing new values that go beyond

The international study "Living Planet Report" published by the Global Footprint Network in 2014, confirms the impossibility to replicate the standard of living of the industrialized countries worldwide: "To make the lifestyle of today's Americans possible, it would take five Earths"

the ideology of constant growth (Laszlo, 1998). He argues that the term "standard of living" in the sense of "quality of life" must be completely redefined and sustainably in order to both meet the demands of human rights and to preserve the regenerative capacity of the biosphere in the long term.

So we need a solution for fishermen that is in harmony with the environment. That would be the longest-term solution possible. In addition, the aim is not to live in the greatest luxury, but to live a fair life without exploitation. In addition, there should be a balance between professional obligations (work life) and personal or family interests and activities (United Nations Development Programme (UNDP), 2015). A viable long-term solution involves enhancing the profession of "fisher" by implementing the principles of "sustainable work", as proposed in the United Nations Development Programme's report on "Work and Human Development" (UNDP, 2015). This entails integrating sustainable practices into the fishing industry to ensure the well-being of both the environment and the individuals engaged in fishing activities. By adopting the sustainable work paradigm outlined in the UNDP report, the fishing profession can evolve towards a more environmentally conscious and socially responsible model, fostering enduring benefits for both the fisheries sector and the broader community.

Despite progress, Peru continues to face challenges, especially in rural areas and marginalized communities where access to these basic re-

sources is often restricted. Collaboration between the government, civil society, and international organizations is crucial to strengthening the implementation of this human right and reducing social inequalities.

A current challenge for Peru and its fishermen is probably the biggest environmental disaster the country has ever experienced (Katholische Nachrichten-Agentur (KNA), 2022). This was triggered by a volcanic eruption of the "Hunga Tonga-Hunga Ha'apai" volcano, which caused tidal waves. This led to a spill of 6,000 barrels of crude oil in Peru during the unloading of a tanker at the Pampilla refinery in Ventanilla, in the province of Callao.

The Catholic Church in Peru has called for swift intervention by the authorities and called on those responsible to repair the environmental damage. She pointed out that there is great public concern and dismay about the disaster. Another report shows that the fishermen suffered financial losses because no one wanted to buy the fish they caught at the time, due to the smell of oil (Nachrichtenpool Lateinamerika, 2022).

In addition to the fishermen, the ecosystem, the inhabitants and the wildlife are also suffering from the disaster and are at risk. In the waters off the coast of Peru, there are fish that are threatened with extinction and are considered particularly worthy of protection. According to official data, a total of 17 beaches and two nature reserves are affected by the oil spill.

In 2022, a dispute over responsibility erupted between the oil company Repsol and the government. The company accuses the authorities of failing to issue tsunami warnings before the accident. Environmentalists, on the other hand, accuse Repsol of trying to cover up an industrial accident that had nothing to do with the volcanic eruption. After the oil spill in Peru, people in over 15 countries protested together against the destruction of the oceans caused by offshore oil and gas extraction (analyse & kritik Zeitung für Debatte & Praxis, 2022). The livelihoods of at least 1,500 fishermen were destroyed by the disaster.

In 2023, there was reporting in the media such as the Tagesschau about riots by police officers against social minorities such as the indigenous population (Tagesschau, 2023). According to Tagesschau, they are disappointed by the govern-

ment, as they feel left behind. In addition, there have been several changes of president in the past and some have subsequently gone into hiding in another country. This shows that it is difficult to hold the concrete actors accountable and that peace hangs in the balance. As well as a certain racism, because explicitly people of a unit were killed by the police, this completely without valid and legal, as well as fair reason. This is completely arbitrary and without any legal basis. Human rights activists have failed several times in the past, according to amnesty international, they even received death threats in neighbouring Colombia (Amnesty International, 2023).

Holding the government accountable through legal means, particularly when it comes to specific individuals like politicians, appears to be a challenging endeavor. This highlights the societal divide and underscores the precarious state of peace (Vatican News, 2018). The lack of universal acceptance of the president and wide-spread dissatisfaction contribute to this tension. Moreover, the closely contested election results prompted cardinal Pedro Ricardoto appeal to the population to acknowledge the outcome (KNA, 2021).

In conclusion, ensuring safety should be the foremost priority, with financial considerations being secondary-though essential for maintaining a high standard of living.

3. Peruvian fishers

In Chorrillos, Peru, there are different types of fishermen, including artisanal and industrial fishers. At one hand Artisanal fishermen often rely on traditional knowledge and techniques passed down through generations. They typically engage in small-scale, traditional fishing practices and small boats. On the other hand, industrial fishermen operate on a larger scale, using more advanced equipment and vessels.

3.1 working conditions of Peruvian fishermen

The working conditions for Peruvian fishermen can vary significantly. Overall, the working conditions for both artisanal and industrial fishermen can be influenced by factors like economic dynamics, environmental conditions, and government regulations. Industrial fishermen, due to the scale of their operations, may have access to more re-

sources and technology. However, they might also encounter challenges such as competition, market fluctuations, and adherence to sustainability practices. Artisanal fishermen may face challenges related to limited resources, economic pressures, and sometimes, precarious working conditions. They often rely on traditional knowledge and techniques passed down through generations.

Laws such as the "Ley General de Pesca", a general fisheries law, contain relevant provisions in the field of fisheries and maritime affairs. The aim of this law is to regulate fisheries with the goal of promoting the sustainable development of fisheries as a source of food, employment, and income. Simultaneously, it seeks to ensure responsible utilization of hydrobiological resources, optimizing economic benefits in harmony with environmental protection and the preservation of biodiversity. The hydrobiological resources within Peru's territorial waters are considered a national heritage, and it is the responsibility of the state to govern the management and rational utilization of these resources, given that fisheries activities are of national interest (Artículo 1 and Artículo 2 of ley general de pesca).

In Peru, there is also a Ministry of Production for permitting, execution and monitoring at all levels, including fisheries, as well as a Ministry of Labour and Employment Promotion (Ministry of Production, 2017). These deal with the current regulations for the working conditions of fishermen. Its competence extends to natural and legal persons carrying out activities intended for the industry and fisheries sub-sectors, with a vice-ministry for each of these sub-sectors.

Often, working conditions are dangerous, and more than five million fishermen earn less than a dollar a day. However, it should be borne in mind that some of the conditions have only deteriorated as a result of competition with large-scale industrial fishermen. All in all, there are many advantages associated with small-scale fishing: industrial fisheries require about 200 people to catch 1000 tonnes of fish, while small-scale fisheries require about 2400 people to catch the same amount. These higher employment effects in small-scale fisheries could be interpreted as an indication of their inefficiency (Jaquete and Pauly, 2008).

The monthly income that a fisherman should earn should always be enough to finance food, housing and education. However, it is also important to secure life in old age after work and also to ensure continued payment of wages in the event of illness or death for surviving dependents.

The work on the boat must also be made as safe as possible. By overseas rescue, technically good boats and boats that are regularly maintained. The fishermen also need money to be able to buy a new boat in 10 years at the latest. Because the boat secures their existence. They are also accompanied by day-to-day costs, such as those for petrol or for nets and other equipment such as bait, storage, transport, workers on the boat and at the dock, water to maintain hygiene and clean the caught fish, as well as cleaning the boat and equipment and repairs to the boat.

In Peru, there are various measures and organizations that are actively involved in sea rescue, both government agencies and non-governmental organizations (NGOs) are involved in the implementation of these rescue operations. In the event of emergencies, such as boat accidents or other distress situations at sea, the Peruvian coast guards, such as "Comandancia de Operaciones Guardacostas", can intervene to rescue the fishermen.

The protection of fishermen in Chorrillos, Peru, involves a comprehensive approach addressing various factors influencing their lives and work. National legal frameworks, including laws and regulations, play a crucial role in ensuring sustainable fishing practices and protecting marine resources. Peru's commitment to international human rights agreements further contributes to the protection of fishermen.

Environmental and fisheries management practices are implemented to prevent overfishing and preserve marine ecosystems, providing an additional layer of protection. Local social support programs, including education and healthcare services, coupled with the empowerment of fishing communities, contribute to improving the standard of living and protection of fishermen.

Challenges may persist, particularly concerning economic conditions, environmental impacts, and social equity. It is essential to monitor developments in the region, as legal disputes and protective initiatives can evolve over time.

The current situation of fishermen in Chorrillos, Peru, is marked by discussions surrounding the redesign of the dock. Fishermen appear to be secondary in this project for the Costa Verde Authority and the Club, who seem to prefer a scenario without fishermen. Efforts to symbolically include fishermen in plans for the future dock contrast with challenges arising from the fishermen's lack of formal education and knowledge. It remains to be seen how fishermen can articulate their position in the public discourse, highlighting that their needs and perspectives should be considered in the redesign of the dock (Bombiella Medina, 2016).

The concept of "sustainable work", as presented in the United Nations Development Programme's report "Work and Human Development" in 2015, characterizes sustainable work as an activity that promotes human development and simultaneously contributes to mitigating or eliminating negative impacts in various geographical and temporal contexts. It plays a crucial role not only in preserving our planet but also in ensuring that future generations continue to have access to employment opportunities. This paradigm emphasizes the significance of work and the associated potentials for unfolding human capabilities, as illustrated by the "Matrix of Sustainable Work".

In summary, ensuring the sustainability of the fishing profession and combating ocean overfishing are crucial. Additionally, efforts should focus on enhancing working conditions to attract future generations to the industry, and the rights of indigenous peoples must receive heightened recognition. Their active involvement in shaping future reforms is imperative. Protective measures for fishermen encompass legal frameworks, environmental and fisheries management, and local social programs. The current situation, especially in Chorrillos, highlights discussions about the redesign of the dock, where the needs of fishermen may not be adequately considered. It is crucial to understand the complexity of working conditions and cultural influences to develop effective measures for the protection of fishermen and marine resources.

In Iceland, robust labor laws extend to the fishing industry, regulating working hours, wages, and safety standards. With its deeply rooted fishing tradition, Iceland integrates cultural practices into its fishing industry. Modern regulations are also in place to ensure the safety and well-being of fishermen.

3.2 Comparison: working conditions in other countries

The working conditions of fishermen vary worldwide. In the following, I would like to examine those in New Zealand, Iceland, and Mexico more closely.

In New Zealand, the fishing sector adheres to strict standards encompassing safety measures and labor regulations. Fishermen benefit from legal frameworks governing aspects such as working hours, wages, and occupational safety. The country places a strong emphasis on sustainable fishing practices and enforces regulations to effectively manage and preserve marine resources (Internationales Arbeitsamt, 2003).

In Iceland, robust labor laws extend to the fishing industry, regulating working hours, wages, and safety standards. With its deeply rooted fishing tradition, Iceland integrates cultural practices into its fishing industry. Modern regulations are also in place to ensure the safety and well-being of fishermen. Similar to New Zealand, Iceland emphasizes sustainability in fishing and implements measures to maintain healthy marine ecosystems and prevent overfishing.

Mexico's fishing industry faces unique challenges, including issues related to overfishing and unsustainable practices. Although efforts are underway to address these challenges, there is a need for stricter enforcement and improved sustainability measures. The Mexican government has initiated programs to promote sustainable

fishing and protect marine ecosystems. Collaborating with local communities, it seeks to align economic activities with environmental conservation. The industry in Mexico is also influenced by cultural practices and traditions, posing a challenge in balancing tradition with modern regulations.

A comparative analysis reveals the diversity of approaches in the regulation and management of fishing industries. New Zealand and Iceland prioritize stringent regulations and sustainability, emphasizing strict enforcement for safer working conditions. Mexico grapples with the dual challenge of preserving cultural practices while implementing modern conservation measures. Striking a balance between tradition and modernity is crucial for the long-term sustainability of the fishing industry.

In summary, understanding the complexities of regulatory frameworks, cultural influences, and sustainability practices is essential for developing effective policies that ensure the well-being of fishermen and the protection of marine resources.

4. Conclusion

In conclusion, this thesis provides a comprehensive exploration of the challenges and potential solutions concerning the human right to an adequate standard of living for Peruvian fishermen in Chorrillos. The examination was framed within the context of the Universal Declaration of Human Rights and its fundamental principles.

The UDHR holds a pivotal position in the international human rights framework, and Peru has implemented protection mechanisms across different tiers. However, persistent issues like social inequality pose ongoing challenges. The human right to an adequate standard of living, encompassing dimensions such as income, health, and dignity, faces unique hurdles in the context of developing countries.

The case study of Peruvian fishermen in Chorrillos serves as a poignant illustration of a myriad of challenges spanning from working conditions to grappling with environmental catastrophes. Throughout the discourse, there is a resounding emphasis on the critical role of sustainable fishing practices, not only to mitigate environmental impact but also to foster a sense of environmental consciousness and social responsibility.

A comparative analysis shedding light on the working conditions of fishermen in New Zealand, Iceland, and Mexico elucidates the divergence in regulatory approaches. New Zealand and Iceland prioritize stringent regulations and sustainability, whereas Mexico grapples with the intricate task of harmonizing cultural practices with contemporary conservation measures.

In summary, the overarching conclusion underscores the imperative for a holistic and integrated approach to ensure long-term sustainability. Striking a delicate balance between tradition and modernity is deemed essential for safeguarding the well-being of fishermen. The journey towards securing the livelihoods of these individuals necessitates sustained efforts and collaborative endeavors across diverse levels of governance and society.



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Conclusion

In summary, the individual analysis/chapters highlight the multifaceted challenges faced by Peruvian artisanal fishers in Chorrillos. Despite Peru's efforts to implement protective measures in line with the Universal Declaration of Human Rights, persistent issues such as social inequality remain, hindering progress. The unique obstacles in developing countries underscore the complexity of ensuring this fundamental right, encompassing aspects such as income, health, and dignity. The case study of Peruvian fishermen in Chorrillos serves as a poignant reminder of the myriad challenges they face, from precarious working conditions to environmental disasters. Emphasizing sustainable fishing practices proves crucial not only for mitigating environmental damage but also for promoting environmental awareness and social responsibility.

Considering political aspects, urgent action is needed to address management approaches concerning Peru's artisanal fisheries. Implementing ABFMs is crucial for ensuring the sustainable use of marine ecosystems and the recovery of biomass. ABFMs, which include spatially defined conservation policies, have proven effective in halting overfishing and promoting resource sustainability. By establishing restrictions on fishing activities based on time, space and type, ABFMs can mitigate the negative impacts of fishing while supporting ecosystem health. Furthermore, the adoption of IMTA presents an opportunity to reconcile the growing demand for fish with environmental sustainability. IMTA involves integrating different aquaculture species to maximize efficiency and profitability while minimizing ecological harm. By harmonizing species interactions and ecosystem conditions, IMTA offers a path towards sustainable aquaculture practices that can enhance biodiversity and ecosystem resilience. Addressing transboundary issues is also critical, as evidenced by collaborative efforts between Chile and Peru in the GEF-UNDP Humboldt Project. Developing

a Transboundary Diagnostic Analysis and Strategic Action Program can help identify and address pressing concerns affecting the Humboldt Current System's health. These initiatives underscore the need for collaborative management approaches and highlight socioeconomic and environmental challenges such as overfishing, pollution, and climate variability. The OSPA in Peru has brought positive changes for artisanal fishers without requiring significant financial capital, which demonstrates the potential for local and trans-local unions. In this manner, artisanal fishers should be encouraged to organize and collaborate to address improvements, problems, and disagreements collectively. Without active action and stronger collective commitment, theoretical management approaches and improvement potentials cannot be effectively implemented. But besides the need of self-initiatives from local communities, the government and authorities need to demonstrate a higher level of commitment, respect, visibility, and integration towards artisanal fishers to fully tap into their potential for shaping the country. These two facts are mutually dependent.

TEK is crucial for sustainable development due to its unique insights into ecosystems, biodiversity, and natural resource management. Unlike scientific knowledge, which often prioritizes quantifiable data and experiments, TEK is rooted in generations of experiential learning and intimate connections with the environment. TEK offers invaluable wisdom on sustainable fishing practices, conservation strategies, and adaptation to environmental changes. By incorporating TEK into decision-making processes, policymakers can benefit from holistic perspectives that prioritize environmental harmony, social equity, and cultural preservation. Furthermore, embracing TEK fosters respect for diverse cultural traditions and promotes collaboration between different knowledge systems. The involvement of local knowledge shouldn't just be an afterthought relegated to impact assessments

during project evaluations; rather, it should be integral from the outset, starting with strategic planning. It's imperative to establish partnership and co-management structures that enable their participation in decision-making processes right from the start, ensuring the proper safeguarding of TEK. Policy support plays a pivotal role in advancing the recognition of TEK within both scientific circles and society at large. Challenges include a dearth of political will, inadequate coordination, financial constraints, and the overpowering influence of multinational corporations. Sound policy mechanisms provide the necessary framework for acknowledging, validating, and integrating the local knowledge of communities such as the artisanal fishers of Chorrillos into decision-making processes, thereby promoting a more comprehensive and inclusive approach to environmental management, conservation, and sustainable development.

The "Strategy to promote the standard of living according to Article 25 of the UDHR" emphasizes the importance of adopting a comprehensive and inclusive approach to ensure long-term sustainability. Achieving this goal requires delicately balancing tradition and modernity, necessitating concerted efforts from both the government and society. To begin with, promoting robust legal frameworks for sustainable fishing involves ensuring the protection of marine resources and the safety and well-being of fishermen through the implementation of stronger regulations and enforcement measures. Secondly, encouraging sustainable work practices in the fishing industry, guided by the UNDP's principles, integrates environmental and social responsibility to secure long-term benefits for both fishermen and the environment. Furthermore, empowering fishing communities through active participation, educational initiatives, improved access to healthcare, and the creation of diverse economic opportunities serves to elevate living standards and mitigate social inequalities. Moreover, fostering international cooperation to address environmental and climate-related challenges affecting fishermen entails sharing best practices and coordinating responses to ensure the sustainable management of marine resources. Additionally, raising public awareness about fishermen's rights, sustainable fishing practices, and

environmental conservation through various campaigns, media platforms, and advocacy efforts is crucial for mobilizing support for policy reforms. Furthermore, providing targeted assistance to vulnerable populations within fishing communities, such as indigenous peoples and marginalized groups, involves capacity-building, offering legal aid, and implementing tailored initiatives to address their specific needs and challenges. Lastly, promoting research and monitoring efforts to better understand the challenges faced by fishermen and the effectiveness of interventions is essential for making informed decisions and providing targeted support. This includes addressing the needs of indigenous peoples and marginalized groups within these communities.

Ultimately, the success of these efforts depends on all stakeholders embracing the lessons from this research and collectively moving towards a path of concerted action for a fairer and more sustainable future for Peruvian artisanal fishers and their ecosystems.

Bibliography and sources

- Aboriginal and Torres Strait Islander Social Justice Commissioner (2009). *Chapter 7: The protection of Indigenous knowledge's*. 2008 Native Title Report. Human Rights and Equal Opportunity Commission (Ed.).
- Activa (2023). *Pulso Ciudadano Un 36,7% de la población estaría votando en contra en el Plebiscito de Salida para la Propuesta de Nueva Constitución*. Retrieved from: www.chile.activasite.com/estudios/pulso-ciudadano-71/
- Arico, S., Valderrama, G. C. (2010). *Traditional knowledge: From environmental management to territorial development*. Traditional knowledge in policy and practice: Approaches to development and human well-being. Pisupati, B., Subramanian, S. M. (Eds.). United Nations University Press (publ.).
- Baldenhofer, K. G. (2024). *Auswirkungen von ENSO auf die Fischwelt*. Das ENSO-Phänomen. Retrieved from: www.enso.info/impressum.html
- Berkes, F. (2007). *Traditional Ecological Knowledge*. University of Manitoba (Ed.). Natural Resources Institute (publ.).
- Berkes, F. (2012). *Sacred Ecology* (3rd ed.). Routledge (publ.).
- Bombiella Medina, H. A. (2016). *Place-based communities and neoliberalism: A study of the artisanal fishing community of Chorrillos, Peru* [Dissertation]. Iowa State University Ames, Iowa. Retrieved from: www.dr.lib.iastate.edu/server/api/core/bitstreams/bc0ba082-b895-4104-a1f8-1f3467359f61/content
- Caceres, J. C. (2023). *Colombia: hope at risk. The lack of a safe space to defend human rights in Colombia continues*. Retrieved from: www.amnesty.de/sites/default/files/2023-11/Amnesty-Bericht-Kolumbien-Menschenrechtsverteidiger-schuetzen-Drohungen-Gewalt-November-2023.pdf
- Capra, F. (1982). *The turning point – science, society and the rising culture*. Simon and Schuster (publ.).
- Casi, C., Guttorm, H. E., Virtanen, P. K. (2021). *Traditional Ecological Knowledge*. Situating Sustainability: A Handbook of Contexts and Concepts. Krieg, C. P., Toivanen, R. (Eds.). Helsinki University Press (publ.).
- CEPA (2018). *Principles of effective governance for sustainable development*. United Nations Department of Economic and Social Affairs (publ.).
- CEPA (2019). *Principles of effective governance for sustainable development*. United Nations Department of Economic and Social Affairs (publ.).
- Das, A., Devi, R. J., Gujre, N., Mita, S., Rangan, L. (2023). *Traditional ecological knowledge towards natural resource management: perspective and challenges in North East India*. Farooq, M., Gogoi, N., Pisante, M. (Eds.). Sustainable Agriculture and the Environment. Academic Press (publ.).
- De la Puente, S., De la Lama, R. L., Roció, Llerena-Cayo, C., Martínez, B. R., Rey-Cama, G., Christensen, V., Rivera-Ch, M., Valdés-Velasquez, A. (2022). *Adoption of sustainable low-impact fishing practices is not enough to secure sustainable livelihoods and social wellbeing in small-scale*. Marine Policy (Vol. 146). Science Direct (publ.). Retrieved from: www.doi.org/10.1016/j.marpol.2022.105321.
- Deutsche Gesellschaft für die Vereinten Nationen e.V. (2015). *Arbeit und menschliche Entwicklung: Menschlicher Fortschritt in einer ungleichen Welt* [Special issue], DGfVn e.V. (Ed.). BWV.
- Dimitri, G. M. (2015). *Productivity and Sustainable Management of the Humboldt Current*. Science Direct. Retrieved from: www.sciencedirect.com/science/article/pii/S2211464515300397
- Drew, J. A. (2005). *Use of Traditional Ecological Knowledge in Marine Conservation*. Conservation Biology 19(4).
- Ebert, M. (2023). *Staatskrise in Peru: Aufstand der Abgehängten*. Retrieved from: www.tagesschau.de/ausland/amerika/peru-staatskrise-101.html
- Fischer, J., Jorgensen, J., Josupeit, H., Kalikoski, D., Lucas, C.M. (2015). *Fishers' knowledge and the ecosystem approach to fisheries – Applications, experiences and lessons in Latin America*. FAO fisheries and aquaculture technical paper (591). Food and Agriculture Organization of the UN (publ.).
- Frölicher, T. (2019). *Hitzewellen im Ozean - Die unterschätzte Gefahr, Physik in unserer Zeit*. Wiley Online Library.

- Graack, N. (2022). *Repsol, übernahm Verantwortung! Nach der Ölkatastrophe in Peru protestieren Menschen in über 15 Ländern gemeinsam gegen die Zerstörung der Ozeane durch Offshore-Öl- und Gasförderung*. Retrieved from: www.akweb.de/bewegung/repsol-uebernimm-verantwortung/
- Gozzer-Wuest, R., Alonso-Poblacion, E., Rojas-Perea, S., Roa-Ureta, R.H. (2022). *What is at risk due to informality? Economic reasons to transition to secure tenure and active comanagement of the jumbo flying squid artisanal fishery in Peru*. Marine Policy. Elsevier (publ.)
- Hardison, P., Williams, T. (2013, August 15th). *Culture, law, risk and governance: contexts of traditional knowledge in climate change adaptation*. Climate Change and Indigenous Peoples in the United States: Impacts, Experiences, and Actions. Colombi, B. J., Koppel, M. J., Pandya, R. E. (Eds.), Springer Link (publ.). Retrieved from: www.link.springer.com/article/10.1007/s10584-013-0850-0.
- Hoagland, S. J. (2016). *Integrating Traditional Ecological Knowledge with Western Science for Optimal Natural Resource Management*. IK: Other Ways of Knowing (Vol. 3, Issue 1). Pennsylvania State University Libraries (publ.).
- Houde, N. (2007). *The Six Faces of Traditional Ecological Knowledge: Challenges and Opportunities for Canadian Co-Management Arrangements*. Ecology and Society (publ.).
- Iano. *Mitarbeiter in Peru einstellen*. Retrieved from: www.lano.io/de/global-hiring/peru.
- Internationales Arbeitsamt. (2003). *Arbeitsbedingungen im Fischereisektor*. Internat. Arbeitsamt.
- Jara, H. J. (2020). *Current and future socio-ecological vulnerability and adaptation of artisanal fisheries communities in Peru, the case of the Huaura province*. Marine Policy. Elsevier (Ed.).
- Jacquet, D. P., Jacquet, J., Pauly, D. (2008). *Funding Priorities: Big Barriers to Small-Scale Fisheries*. Funding priorities: Big barriers to small-scale fisheries. Conservation Biology: The Journal of the Society for Conservation Biology, 22(4), 832–835. Retrieved from: www.doi.org/10.1111/j.1523-1739.2008.00978.
- Katholische Nachrichten-Agentur (2021). *Peru: Kardinal ruft zu Anerkennung des Wahlergebnisses auf*. Retrieved from: www.weltkirche.katholisch.de/artikel/34764-peru-kardinal-ruft-zu-erkennung-des-wahlergebnisses-auf.
- Katholische Nachrichten-Agentur (2022). *Kirche in Peru fordert Verantwortungsübernahme nach Ölpest*. Retrieved from: www.weltkirche.katholisch.de/artikel/34495-kirche-in-peru-fordert-verantwortungsuebernahme-nach-oelpest.
- Kluger, L. C., Kochalski, S., Aguirre-Velarde, A., Vivar, I., Wolff, M. (2019). *Coping with abrupt environmental change: the impact of the coastal El Niño 2017 on artisanal fisheries and mariculture in North Peru*. ICES Journal of Marine Science, 76 (Issue 4). ICES (Ed.).
- Kohl, K. H. (2012). *Ethnologie - die Wissenschaft vom kulturell Fremden: Eine Einführung* (3rd edition). C.H. Beck Studium. Beck.
- Laszlo, E. (1998). *Systemtheorie als Weltanschauung: Eine ganzheitliche Vision für unsere Zeit*. Diederichs new science. Diederichs.
- Loayza-Aguilar, R. E. (2023). *Integrated Multi-Trophic Aquaculture (IMTA): Strategic model for sustainable mariculture in Samanco Bay, Peru*. Frontiers (publ.). Retrieved from: www.frontiersin.org/articles/10.3389/fmars.2023.1151810/full.
- Maslow, A. H. (1943). *A theory of human motivation*. Psychological Review, 50(4), 370–396. Retrieved from: www.doi.org/10.1037/h0054346.
- Ministry of Production Peru (2017). *Información institucional*. Retrieved from: www.gob.pe/institucion/produce/institucional.
- Nachrichtenpool Lateinamerika (2022). *Tausende Fischer*innen nach Ölkatastrophe vor dem Bankrott*. Retrieved from: www.npla.de/thema/umwelt-wirtschaft/tausende-fischerinnen-nach-oelkatastrophe-vor-dem-bankrott/.
- Numbeo (n. D.) *Cost of living in Peru*. Retrieved from: www.numbeo.com/cost-of-living/country_result.jsp?country=Peru.
- Paden, N. E. (2007). *Indigenous Knowledge in Peru*. Tribes and Tribals. Special Volume No. 1. Boon, E. K., Hens, L. (Eds.).
- Petza, D. E. (2023). *Contribution of area-based fisheries management measures to fisheries sustainability and marine conservation: a global scoping review*. Fish Biology and fisheries. Springer Link (publ.). Retrieved from: www.link.springer.com/article/10.1007/s11160-023-09780-9.
- Pisupati, B., Subramanian, S. M. (2010). *Conclusion*. Traditional knowledge in policy and practice: Approaches to development and human well-being. Pisupati, B., Subramanian, S. M. (Eds.). United Nations University Press (publ.).

- Pisupati, B., Subramanian, S. M. (2010). *Introduction*. Traditional knowledge in policy and practice: Approaches to development and human well-being. Pisupati, B., Subramanian, S. M. (Eds.). United Nations University Press (publ.).
- Putra, S. A. (2021). *Ethnoscience A Bridge To Back To Nature*. EDP Sciences (publ.).
- Rahim, N. (2020). *Traditional Ecological Knowledge and its Relevance to Sustainable Development*. Somaliland Peace and Development Journal (Vol. 4). Ali, N. M. (Ed.). Institute for Peace and Conflict Studies (publ.).
- Royer, M. J. S. (2016). *Climate, Environment and Cree Observations*. Springer Cham (publ.).
- Rundfunk (2023, March 23rd). *El Niño und La Niña – Wetterphänomene bringen Naturkatastrophen*. ARD Alpha (publ.). Retrieved from: www.ardalpha.de/wissen/umwelt/klima/wetter-el-nino-la-nina-meeresstroemung-wetterphaenomen-100.html.
- The World Bank (1998). *Indigenous Knowledge Definitions, Concepts and Applications*. The World Bank (publ.).
- Vatikan News (2018). *Papst vor Peru-Besuch: Bischof Nann: Peru ist tief gespalten*. Retrieved from: www.weltkirche.katholisch.de/artikel/36785-bischof-nann-peru-ist-tief-gespalten



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