

Journal of international and digital communication:
Sustainability perspectives

Special Issue 2/2024

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

H O C H
S C H U L E
T R I E R

Impressum



Hochschule Trier, Umwelt-Campus Birkenfeld
Fachbereich Umweltwirtschaft/Umweltrecht



Contact:

Campusallee, Gebäude 9916
55768 Hoppstädten-Weiersbach
Deutschland

+49 6782 17-1819
info@umwelt-campus.de
www.umwelt-campus.de

ISSN 2940-1992

© Editors Trier University of Applied Sciences,
Environmental Campus Birkenfeld, 2024

This is an open access manuscript under the terms of the Creative Commons Attribution-NonCommercial License, which permits use, distribution and reproduction in any medium, provided the original work is properly cited and is not used for commercial purposes.

Bibliographic information from the German Library: The German Library lists this publication in the German National Bibliography; detailed bibliographic data is available on the Internet at www.dnb.de.



Institut für Internationale und Digitale
Kommunikation

Contact:

Bibliothek der Hochschule Trier,
Umwelt-Campus Birkenfeld
Publikationsservice: Open Access Server

+49 6782 17-1477
bibliothek@umwelt-campus.de
[www.umwelt-campus.de/campus/organisation/
verwaltung-service/bibliothek](http://www.umwelt-campus.de/campus/organisation/verwaltung-service/bibliothek)

Layout and editorial design:

Nina Giordano
www.nina-giordano.com

Images and icons:

Adobe Stock
The Noun Project



We would like to thank proWIN for supporting this publication.

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.

Glyphosat use in line with Colombia's peace policy

Author: Maxi-Mercedes Jahn

Table of contents

1 Introduction	104
2 Coca Cultivation	105
3 Peace Policy	105
4 Consequences	107
5 The German Perspective	108
6 Solution Approaches with a view to Thailand	109
7 Current Developments in Colombia	110
8 Conclusion	111

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 Columbia (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.



Maxi-Mercedes Jahn

is studying environmental and economical law in her 8th semester with a focus on economical law. Before starting her semester abroad, she was in charge of the environmental department at "AStA", which is the central representation of students. In addition to her engagement for the general students' committee, she has also worked as a working student at the student workspace "Contact" at the Environmental Campus Birkenfeld.

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

Author: Daniel Förster

Table of contents

1 Introduction	113
2 Coca Cultivation	114
2.1 Social Impact.....	114
2.2 Economic Impact.....	114
2.3 Ecological Impact.....	115
3 Economic Situation	116
4 Political Situation	116
5 US-Colombian Free Trade Agreement	117
6 Solution Design	118
8 Conclusion	119

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

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-of-economic-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-national-income-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-has-used-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.