

Environmental Neglect in the Comoros: Weak Ecological Awareness and Limited Implementation of Environmental Law

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Abstract

This article analyzes environmental neglect in the Comoros by examining the interplay between weak ecological awareness and the limited effectiveness of environmental law. Despite the adoption of a national legal framework and the ratification of several international conventions, environmental degradation remains alarming, revealing a significant gap between normative production and its practical implementation. The study is based on qualitative research conducted between June and August 2025 in “Mutsamudu”, the capital of Anjouan Island, involving one hundred resource persons, including citizens, civil society leaders, legal practitioners, and university lecturers. Data were collected through semi-structured interviews organized around four analytical axes: public perceptions, knowledge of legal texts, socio-economic constraints, and local environmental protection initiatives. Findings highlight a genuine yet fragmented ecological awareness, a limited legal appropriation, persistent economic barriers, and insufficiently coordinated local actions. The article advocates for an integrated approach combining environmental education, citizen participation, institutional strengthening, and sustainable financing mechanisms to build a coherent and socially legitimate environmental governance capable of reconciling ecological imperatives with socio-economic priorities for the long-term protection of Comorian ecosystems.

Keywords: Comoros, ecological awareness, environmental governance, Environmental law, local initiatives, socio-economic constraints, sustainability.

INTRODUCTION

Environmental issues have emerged as one of the major challenges of the twenty-first century, not only because of the visible impacts of climate change and ecosystem degradation but also due to the socio-economic and legal concerns closely associated with them. In developing island states such as the Union of the Comoros, this problem takes on a particular urgency, as rapid urbanization, demographic pressure, and dependence on natural resources confront public authorities, social actors, and local communities with a dual imperative: reconciling the satisfaction of basic needs with the protection of a fragile and limited environment (Desai 2010; Kotzé 2019).

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Yet, despite the adoption of both national and international legal instruments relating to environmental protection, including the revised Comorian Constitution of 2018, the Environmental Code adopted in 1994 and amended in 2001, and international commitments such as the 1992 United Nations Framework Convention on Climate Change and the 2015 Paris Agreement, Comorian reality remains characterized by the accumulation of daily assaults on natural ecosystems. The dumping of waste in streets and along the coastline, the weakness of public waste management services, and the lack of local awareness-raising policies illustrate a persistent gap between normative production and its effective implementation (Kiss and Shelton 2007; Sands et al. 2012). This situation raises a central question: does the persistence of environmental neglect in the Comoros stem primarily from the weak ecological awareness of citizens or from the limited effectiveness of environmental law and the institutions responsible for its enforcement?

To address this issue, the present research adopts both a legal and sociological approach, combining the analysis of existing normative instruments with the study of local actors' perceptions and behaviors. Empirically, a qualitative survey was conducted between June and August 2025 in "Mutsamudu", the capital of Anjouan Island, involving one hundred resource persons, including citizens, civil society leaders, legal practitioners, and university lecturers. Data collected through semi-structured interviews made it possible to identify social representations of the environment, knowledge of legal texts, socio-economic constraints shaping behaviors, and the perceived effectiveness of local environmental protection initiatives.

The objective of this article is therefore to demonstrate, through empirical investigation and critical legal analysis, that weak ecological awareness and the limited effectiveness of environmental law constitute two interdependent dynamics whose joint understanding is essential to envision a more coherent and effective environmental governance framework for the Comoros.

METHODOLOGY

This research adopts both a legal and sociological approach to analyze environmental neglect in the Comoros, combining the examination of the normative framework with the study of local actors' perceptions and behaviors. From a theoretical perspective, it draws on scholarship addressing the effectiveness of law and environmental governance (Kiss and Shelton 2007; Kotzé 2019), considering that the mere existence of legal instruments such as the revised Comorian Constitution of 2018, the Environmental Code (Republic of the Comoros 1994, 2001), and international commitments like the United Nations Framework Convention on Climate Change (UN 1992) and the Paris Agreement (UN 2015) does not in itself guarantee either effective implementation or social appropriation (Sands et al. 2012).

On the empirical level, the study is based on a qualitative survey conducted in "Mutsamudu", the capital of Anjouan Island, between June and August 2025. A qualitative method was chosen to gain an in-depth understanding of social representations, local constraints, and institutional dynamics surrounding environmental issues, following the recommendations of Denzin and Lincoln (2011) and Miles and Huberman (2014).

The sample consisted of one hundred resource persons selected to reflect the diversity of stakeholders involved. Eighty citizens from ten representative neighborhoods, including "Chitsangani", "Missiri", "Gougwamwe", "Foukoujou",

“Chougoujou”, “Hampanga”, “Chaweni”, “Mjihari”, “Habomo”, and “Pagé”, provided insights into daily practices regarding waste management and coastal protection. In parallel, six civil society leaders, three from the “ONG Action Formation et Expertise en Développement Durable” (NGO Action Training and Expertise in Sustainable Development) and three from the “*Association Urahafu Na Ulanga*”, documented local and community initiatives. Additionally, six legal practitioners contributed perspectives on the interpretation and enforcement of environmental law, while eight university lecturers in law, political science, and social sciences from the University of the Comoros offered critical and theoretical analyses of the issues under study.

Semi-structured interviews, lasting on average forty-five minutes, were organized around four main axes: citizen perceptions, knowledge of legal texts, socio-economic constraints, and local environmental protection initiatives. The data collected were analyzed using a thematic method inspired by Braun and Clarke (2006), which made it possible to identify convergences and divergences between discourses, practices, and the normative framework. Combining this empirical analysis with the legal examination enabled us to explain the persistence of environmental neglect as the result of complex interactions between social, institutional, and legal factors.

RESULTS

The analysis of data collected from the one hundred respondents highlights significant trends that shed light on the persistence of environmental neglect in the Comoros and help to identify its underlying causes. The findings are presented according to the four thematic axes defined by the interview guide, each illustrated with graphs that facilitate both the interpretation and comparison of responses across the different categories of actors involved (Figures 1–4).

1) Citizen Perceptions of the Importance of a Healthy Environment

The data reveal that the majority of respondents, nearly seventy-six percent, acknowledge that pollution in the streets and along the coastline constitutes a major problem with repercussions for public health, the archipelago’s tourism image, and the fishing activities on which many families depend. However, this environmental awareness varies across categories: university lecturers reach a rate of 90 percent, followed by legal practitioners at 85 percent, civil society leaders at 80 percent, while citizens register only 72 percent (Figure 1).

As one resident of the “Chitsangani” neighborhood explained, “We know that throwing garbage into the sea is not good, but there are not enough bins or regular collection, so what else can we do?” These findings reflect a genuine environmental awareness, yet one constrained by the perception of persistent institutional shortcomings and by the difficulty of integrating ecological practices into daily life where more immediate priorities prevail.

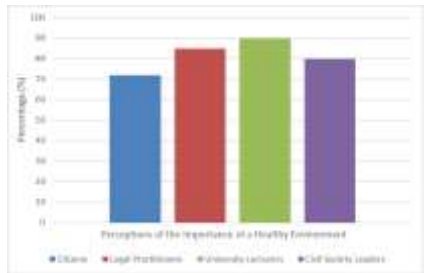


Figure 1. Perceptions of the Importance of a Healthy Environment (in %).

Source: Author, based on semi-structured interviews conducted in “Mutsamudu”, Anjouan, Comoros (June to August 2025, sample size = 100).

2) Knowledge and Appropriation of Legal Texts

The second analytical axis highlights a significant contrast among the different categories of respondents regarding their knowledge and appropriation of legal instruments related to the environment. While university lecturers (75 percent) and legal practitioners (70 percent) demonstrate a good understanding of the Environmental Code and the main international conventions ratified by the Comoros, civil society leaders (30 percent) and especially citizens (8 percent) display a marked lack of familiarity with these instruments (Figure 2).

As one legal practitioner from the Anjouan Court of First Instance observed, “The laws exist, but the procedures are cumbersome, the sanctions merely symbolic, and the technical services poorly equipped, so the law often remains a dead letter.” This deficit in legal dissemination directly contributes to the observed gap between the existence of relatively protective norms and their concrete implementation on the ground.

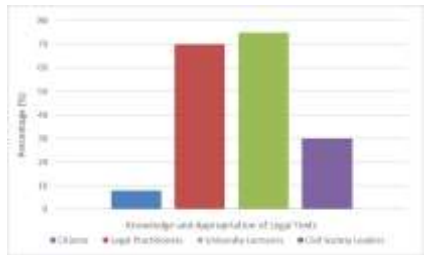


Figure 2. Knowledge and Appropriation of Legal Texts (in %).

Source: Author, based on semi-structured interviews conducted in “Mutsamudu”, Anjouan, Comoros (June to August 2025, sample size = 100).

3) Socio-Economic Constraints and Environmental Behaviors

The results of the third analytical axis confirm that economic and social constraints are major determinants of environmental behaviors. Civil society leaders (65 percent) and citizens (60 percent) emphasize that the absence of adequate infrastructure, such as waste treatment centers or regular municipal services, as well as the priority given to meeting basic needs like food and education, largely explains the persistence of illegal dumping. Legal practitioners (55 percent) and university lecturers (50 percent), while acknowledging these constraints, stress the need for better public planning to reconcile economic development with environmental protection (Figure 3).

As one fisherman from the Pagé neighborhood summarized, “We live day by day; the environment is important, but it does not feed us immediately.”

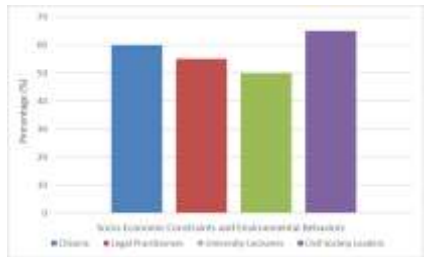


Figure 3. Socio-Economic Constraints and Environmental Behaviors.

Source: Author, based on semi-structured interviews conducted in “Mutsamudu”, Anjouan, Comoros (June to August 2025, sample size = 100).

4) Assessment of Local and Community Initiatives

Awareness campaigns organized by the “ONG Action Formation et Expertise en Développement Durable” and the “Association Urahafu Na Ulanga”, particularly in the neighborhoods of “Hampanga” and “Chaweni”, have mobilized residents around clean-up days and educational sessions in schools. However, their impact remains limited, mainly due to a lack of funding, weak coordination with local authorities, and the absence of an effective regulatory framework against recurrent polluters. Civil society leaders (60 percent) are the most engaged, followed by university lecturers (50 percent), while legal practitioners (45 percent) and citizens (35 percent) believe that these initiatives, although commendable, cannot replace a comprehensive public policy on environmental management (Figure 4).

A local councilor from the “Mjihari” neighborhood summarized the situation by stating, “We do what we can with the resources available, but without a coherent national policy and sufficient resources, it is impossible to reverse the situation in a sustainable way”.

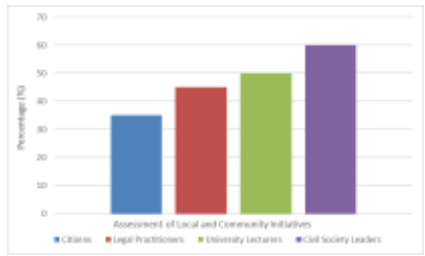


Figure 4. Assessment of Local and Community Initiatives (in %).

Source: Author, based on semi-structured interviews conducted in “Mutsamudu”, Anjouan, Comoros (June to August 2025, sample size = 100).

DISCUSSION

The analysis of the results highlights the complexity of the factors explaining the persistence of environmental neglect in the Comoros. By comparing local actors’ perceptions with existing normative frameworks, it becomes possible to understand the tensions between legal ambitions, socio-economic realities, and everyday behaviors.

This discussion therefore aims to interpret the observed trends in light of the scientific literature and the requirements for environmental governance identified by international institutions.

1. Citizen Perceptions of the Importance of a Healthy Environment

The data reveal that a majority of residents (76 percent) recognize the importance of a healthy environment, although this awareness varies across actor categories. University lecturers (90 percent) and legal practitioners (85 percent) appear the most aware, while citizens (72 percent) and civil society leaders (80 percent) condition their commitment on the availability of infrastructure and the satisfaction of essential needs. These results confirm the analyses of Desai (2010) and Agrawal (2005), who argue that populations in developing countries place environmental concerns within a hierarchy of priorities dominated by economic survival. Furthermore, the lack of systematic environmental education in public policies, as emphasized by UNESCO (2021), contributes to a partial awareness that is often mobilized only in times of crisis or natural disasters.

2. Knowledge and Appropriation of Legal Texts

The research reveals a sharp contrast: university lecturers (75 percent) and legal practitioners (70 percent) are well-versed in the Environmental Code (Republic of the Comoros 1994, 2001) and international conventions such as the United Nations Framework Convention on Climate Change (UN 1992) and the Paris Agreement (UN 2015), whereas citizens (8 percent) and civil society leaders (30 percent) largely lack knowledge of their content.

The literature stresses that the existence of legal norms does not guarantee either their social appropriation or their effective application. Kiss and Shelton (2007) as well as Sands et al. (2012) highlight the importance of legal dissemination and the training of local actors to render environmental law effective. Without information campaigns and credible enforcement mechanisms, norms remain largely symbolic and fail to guide behavior, as already observed by Winter and May (2001) in their studies on environmental policy implementation.

3. Socio-Economic Constraints and Environmental Behaviors

The findings show that 60 percent of citizens and 65 percent of civil society leaders attribute pollution to economic constraints, lack of infrastructure, and the absence of regular municipal services. Legal practitioners (55 percent) and university lecturers (50 percent) stress the need to integrate environmental considerations into public planning and development policies.

This finding aligns with the analyses of OECD (2019) and Ostrom (2009), who argue that environmental protection in vulnerable countries cannot be separated from broader socio-economic development goals. Biermann and Pattberg (2012) also emphasize the importance of integrated governance capable of linking social equity, ecological sustainability, and institutional accountability.

4. Assessment of Local and Community Initiatives

Awareness campaigns led by the “ONG Action Formation et Expertise en Développement Durable” and the “Association Urahafu Na Ulanga” demonstrate local mobilization, but their impact remains limited by insufficient funding, weak coordination with municipalities, and the absence of an effective regulatory framework.

Civil society leaders (60 percent) appear the most engaged, while citizens (35 percent) and legal practitioners (45 percent) consider these initiatives necessary but ultimately insufficient and sporadic.

These observations confirm the work of Ribot (2002) and Blaikie (2006), who argue that environmental decentralization cannot produce lasting effects without adequate resources, technical capacity, and strong institutional support. Agrawal and Gibson (1999) further note that local initiatives must be integrated into coherent national policies to overcome the current fragmentation.

5. Interpretive Synthesis

Taken together, these results illustrate what Kotzé (2019) terms an “unfinished environmental constitutionalism,” characterized by normative proliferation contrasted with limited enforcement and weak citizen participation. To make environmental law operational in the Comoros, three dimensions emerge as essential: legal dissemination, institutional strengthening, and the integration of environmental policies into development strategies.

Without an integrated approach, environmental protection risks remaining subordinated to economic emergencies and institutional fragmentation, as also emphasized by Kiss and Shelton (2007) and Ostrom (2009).

CONCLUSION

The analysis of environmental neglect in the Comoros highlights the complexity of the interactions between ecological awareness and the effectiveness of environmental law. The survey conducted in “Mutsamudu” in 2025 reveals that while a majority of respondents recognize the importance of a healthy environment, this awareness remains fragmented, constrained by socio-economic challenges and limited legal enforcement. The existence of a normative framework reinforced by international conventions is not sufficient in the absence of legal dissemination, institutional coordination, and adequate resources. Environmental protection requires an integrated approach combining education, citizen participation, institutional strengthening, and sustainable financing mechanisms to achieve coherent and lasting environmental governance.

REFERENCES

1. Agrawal, Arun. 2005. *Environmentality: Technologies of Government and the Making of Subjects*. Durham: Duke University Press.
2. Agrawal, Arun, and Clark C. Gibson. 1999. “Enchantment and Disenchantment: The Role of Community in Natural Resource Conservation.” *World Development* 27(4): 629–649.
3. Biermann, Frank, and Philipp Pattberg. 2012. *Global Environmental Governance Reconsidered*. Cambridge, MA: MIT Press.
4. Blaikie, Piers. 2006. *The Political Economy of Soil Erosion in Developing Countries*. New York: Longman.
5. Desai, R. 2010. *Environmental Governance in Developing Countries*. New Delhi: Oxford University Press.
6. Denzin, Norman K., and Yvonna S. Lincoln. 2011. *The Sage Handbook of Qualitative Research*. 4th ed. Thousand Oaks, CA: Sage.
7. Kiss, Alexandre, and Dinah Shelton. 2007. *Guide to International Environmental Law*. Leiden: Martinus Nijhoff Publishers.

8. Kotzé, Louis J. 2019. *Global Environmental Constitutionalism in the Anthropocene*. Oxford: Hart Publishing.
9. Miles, Matthew B., and A. Michael Huberman. 2014. *Qualitative Data Analysis: A Methods Sourcebook*. 3rd ed. Thousand Oaks, CA: Sage.
10. OECD. 2019. *Environmental Performance Reviews: Key Findings and Recommendations*. Paris: OECD Publishing.
11. Ostrom, Elinor. 2009. *Governing the Commons: The Evolution of Institutions for Collective Action*. Cambridge: Cambridge University Press.
12. Republic of the Comoros. 1994. *Environmental Code*. Moroni: Official Journal of the Comoros.
13. Republic of the Comoros. 2001. *Environmental Code (Amended Version)*. Moroni: Official Journal of the Comoros.
14. Ribot, Jesse C. 2002. *Democratic Decentralization of Natural Resources: Institutionalizing Popular Participation*. Washington, DC: World Resources Institute.
15. Sands, Philippe, Jacqueline Peel, Adriana Fabra, and Ruth MacKenzie. 2012. *Principles of International Environmental Law*. 3rd ed. Cambridge: Cambridge University Press.
16. UN. 1992. *United Nations Framework Convention on Climate Change*. New York: United Nations.
17. UN. 2015. *Paris Agreement*. New York: United Nations.
18. UNESCO. 2021. *Education for Sustainable Development: A Roadmap*. Paris: UNESCO.
19. Winter, Søren C., and Peter J. May. 2001. "Motivation for Compliance with Environmental Regulations." *Journal of Policy Analysis and Management* 20(4): 675–698.