6

Protecting Land Rights in Biodiversity and Nature-Based Solutions

Ghita Chehbouni

6.1 INTRODUCTION

This chapter explores the complex connections between biodiversity management, land rights, and the successful application of nature-based solutions (NBS) for nature conservation in the Middle East and North Africa (MENA) region. It examines legal challenges and barriers to the application of NBS in the MENA region and innovative approaches to addressing such barriers.

The pursuit of biodiversity conservation through NBS has emerged as a promising pathway to address ecological challenges. NBS are efforts to address environmental problems such a climate change, biodiversity loss, and pollution through ecosystem restoration programs. According to the International Union for the Conservation of Nature (IUCN), "nature-based solutions are actions to protect, sustainably manage, and restore natural and modified ecosystems that address societal challenges effectively and adaptively, simultaneously benefiting people and nature."[1] For example, a common problem is the flooding in coastal areas that occurs as a result of storm surges and coastal erosion. This challenge, traditionally tackled with man-made (gray) infrastructure such as sea walls or dikes, can also be addressed by actions that take advantage of ecosystem services such as tree planting.[2] The term NBS was initially introduced in 2008 by the World Bank,[3] and the concept emerged as a response to the quest for innovative approaches to manage natural systems in a manner that can harmonize the advantages for both the environment and society. In essence, by collaborating with nature instead of opposing it, human communities can create and apply strategies to foster a robust, resource-efficient, and environmentally

[1] IUCN, "About Nature-Based Solutions" www.iucn.org/our-work/nature-based-solutions accessed February 7, 2024.

[2] World Bank, "What You Need to Know about Nature-Based Solutions to Climate Change" (May 19, 2022) www.worldbank.org/en/news/feature/2022/05/19/what-you-need-to-know-about-nature-based-solutions-to-climate-change accessed February 7, 2024.

[3] World Bank, "Biodiversity, Climate Change and Adaptation: Nature-Based Solutions from the World Bank Portfolio" (The International Bank for Reconstruction and Development (IBRD) 2008).

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friendly economy.[4] In 2015, the European Commission officially articulated the first definition of NBS as "actions that simultaneously address environmental, social, and economic challenges by maximizing the benefits provided by nature and are inspired by, supported by, or mimic natural processes."[5] The most recent report from the European Commission on NBS also underscores that the concept of NBS represents a novel approach to addressing socio-ecological adaptation and resilience. It places equal emphasis on the social, environmental, and economic dimensions of these solutions, which encompass a spectrum of strategies, ranging from reforestation and habitat restoration to sustainable agriculture and green infrastructure development. NBS, rooted in harnessing natural processes, offer a harmonious pathway toward sustainable development.

However, despite their potential benefits for restoring biodiversity, NBS efforts have also been increasingly linked to allegations of "green grabbing," a situation whereby conservation efforts inadvertently lead to the appropriation of land and resources from local communities.[6] For instance, in the Maghreb region, where pristine coastal habitats and arid landscapes hold immense ecological value, efforts to establish protected areas and promote ecotourism have at times resulted in the displacement of indigenous populations.[7] The case of the Amazigh communities in Morocco's Souss-Massa National Park exemplifies the intricate dynamics at play.[8] While the establishment of the park aimed to preserve the region's unique biodiversity, it led to the involuntary displacement of traditional communities who had coexisted with the environment for generations.

The foregoing example shows how conservation strategies based on NBS which seek to restore ecosystems and safeguard natural resources may inadvertently led to the appropriation of land and resources from local communities, resulting in social and environmental injustices.[9] This paradox underscores the need to align biodiversity and nature conservation objectives with human rights and social equity.[10] The drivers of green grabbing, including neoliberal conservation paradigms, the commodification of nature, and the tendency to place profit above people, all accentuate

[4] Science for Environment Policy, "The Solution Is in Nature" brief produced for the European Commission DG Environment Science Communication Unit, UWE Bristol (2021) 24 *Future Brief* 4.

[5] Barbara Sowińska-Świerkosz and Joan García, "What Are Nature-Based Solutions (NBS)? Setting Core Ideas for Concept Clarification" (2022) 2 *Nature-Based Solutions* 2–4.

[6] Fairhead James, Leach Melissa, and Scoones Ian, "Green Grabbing: A New Appropriation of Nature?" (2012) 39 *Journal of Peasant Studies* 2, 237.

[7] Annabelle Houdret, "The Water Connection: Irrigation, Water Grabbing and Politics in Southern Morocco" (German Development Institute 2012).

[8] Julius Arnegger, *Protected Areas, the Tourist Bubble and Regional Economic Development: Two Case Studies from Mexico and Morocco* (Würzburg University Press 2014) 80–102.

[9] Damilola Olawuyi, *The Human Rights Based Approach to Carbon Finance* (Cambridge University Press 2016) 1–25.

[10] O. Adeola Francis, "Environmental Injustice and Human Rights Abuse: The States, MNCs, and Repression of Minority Groups in the World System" (2001) 8 *Human Ecology Review* 39.

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the potential for adverse human rights consequences.[11] Local communities, often marginalized and dependent on these ecosystems, bear the brunt of these outcomes, experiencing displacement and loss of livelihoods. Such forced displacements and the associated disruption of cultural ties and traditional ways of life raise concerns about the adverse social impacts of green grabbing. Such instances underscore the importance of integrating a human rights-based approach that considers the rights and needs of local communities in biodiversity and nature conservation programs.[12]

Drawing lessons from Morocco, this chapter discusses the need for a human rights-based approach (HRBA) to nature conservation and biodiversity, especially the application of NBS, to avoid adverse human rights impacts on lands, livelihoods, and peoples, especially indigenous communities. Focusing on the intricate dynamics, challenges, and potential solutions, this chapter sheds light on the paradox where well-intentioned conservation endeavors inadvertently lead to the appropriation of land and resources from local communities. Drawing on relevant literature and case studies, it provides a comprehensive analysis of the underlying drivers, impacts, and recommendations to address the unintended consequences of green grabbing in the context of NBS.

The chapter is organized into four distinct sections, each serving a unique purpose. After this introduction, Section 6.2 delves into the HRBA to NBS, offering insights into how human rights principles can underpin NBS programs to address adverse impacts on forests, peoples, and local communities. Section 6.3 examines legal and institutional barriers to implementing a rights-based approach to conservation within the MENA region, drawing valuable lessons from the Moroccan experience. Finally, Sections 6.4 and 6.5 present a set of recommendations aimed at guiding the practical implementation of NBS, offering actionable insights for effective conservation efforts. This structured approach allows for a comprehensive exploration of the subject matter, from its fundamental concepts to the real-world challenges and solutions.

6.2 LAND RIGHTS, BIODIVERSITY, AND NATURE-BASED SOLUTIONS

Land rights are intertwined with biodiversity conservation as they govern the use and management of, and access to, natural resources. The emphasis on biodiversity and land conservation and management has gained paramount importance on the global stage, particularly within the context of sustainable development. Academic research and international agreements have both highlighted the critical role that biodiversity

[11] Fairhead James, Leach Melissa, and Scoones Ian, "Green Grabbing: A New Appropriation of Nature?" (2012) 39 *Journal of Peasant Studies* 2, 240. See also C. E. Wieckardt, S. Koot, and N. Karimasari, "Environmentality, Green Grabbing, and Neoliberal Conservation: The Ambiguous Role of Ecotourism in the Green Life Privatised Nature Reserve, Sumatra, Indonesia" (2022) 30 *Journal of Sustainable Tourism* 11, 2614.

[12] Olawuyi (n 9).

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plays in maintaining ecosystem resilience and supporting human well-being. As underscored by the United Nations Environment Assembly (UNEA), biodiversity constitutes the intricate web of life, encompassing ecosystems, species, and genetic diversity. Empirical studies have demonstrated the far-reaching impacts of biodiversity loss on ecosystem stability, ecosystem services, and human societies.[13] The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, a significant multistakeholder initiative, has provided comprehensive assessments of the state of global biodiversity, raising awareness about the urgent need for action.[14] In tandem with academic insights, international agreements such as the Convention on Biological Diversity (CBD) and the United Nations Framework Convention on Climate Change (UNFCCC) have emphasized the interconnectedness of biodiversity, climate change, and sustainable development.[15] By capitalizing on the inherent resilience of ecosystems, NBS address environmental challenges while yielding co-benefits such as climate adaptation, water security, and improved livelihoods. UNEA underscores the transformative potential of NBS in shaping policies, guiding investments, and fostering international collaboration. The assembly's resolutions and initiatives echo the need to mainstream these solutions in national and global strategies. By enhancing ecosystem services, NBS pave the way for resilient communities, enhanced food security, and improved quality of life.

NBS, rooted in ecological processes, offer promising avenues to tackle environmental challenges. In the realm of climate policies, there has been a growing emphasis on NBS in approximately forty nationally determined contributions (NDCs), representing the commitments made by states under the Paris Agreement.[16] NBS are increasingly seen as pragmatic options with the potential for swift implementation and the capacity to yield multiple co-benefits for both climate and biodiversity. These benefits extend to mitigation actions, such as reducing greenhouse gas emissions through initiatives such as reforestation, as well as adaptation strategies such as enhancing resilience to climate impacts through measures such as coral reef restoration. Nevertheless, it is crucial to pay special attention to how the integration of ecosystems into climate initiatives may either support or potentially harm biodiversity

[13] Damilola Olawuyi and Olaitan Olusegun, "Achieving the United Nations Sustainable Development Goals on Biological Diversity in Nigeria: Current Issues and Future Directions" (2018) 7 *Global Journal of Comparative Law* 1, 37.

[14] Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Service, "Global Assessment Report on Biodiversity and Ecosystem Services" (May 14, 2019) https://zenodo.org/records/6417333 accessed February 7, 2024.

[15] Secretariat of the Convention on Biological Diversity, "Interlinkages between Biological Diversity and Climate Change: Advice on the Integration of Biodiversity Considerations into the Implementation of the United Nations Framework Convention on Climate Change (UNFCCC) and Its Kyoto Protocol" ad hoc Technical Expert Group on Biological Diversity and Climate Change www.cbd.int/doc/publications/cbd-ts-10.pdf accessed February 7, 2024.

[16] Y. Laurans, R. Ruat, and P. Barthélemy, "Comment les États entendent 'compter sur la nature' pour leurs stratégies climat" (Institute for Sustainable Development and International Relations 2016) 5 Issue Brief 16, 4.

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as NDCs are put into practice. By capitalizing on the inherent resilience of ecosystems, NBS address environmental challenges while yielding co-benefits such as climate adaptation, water security, and improved livelihoods.[17] Crucially, the integration of NBS dovetails seamlessly with the conservation of biodiversity. By safeguarding habitats, promoting sustainable land use, and restoring ecosystems, these solutions fortify the intricate tapestry of life on earth. UNEA's advocacy for NBS amplifies their role as catalysts for sustainable development, echoing the imperative to transition toward inclusive and ecologically responsible pathways.

NBS, as endorsed by UNEA and supported by academic research, emerge as a pivotal approach to address these challenges and support sustainable development. These solutions encompass a spectrum of strategies rooted in harnessing natural processes to achieve societal goals while conserving biodiversity. Academic studies have highlighted the multifaceted benefits of NBS, ranging from carbon sequestration and disaster risk reduction to enhanced biodiversity conservation. The CBD's Aichi Biodiversity Targets and the Paris Agreement under the UNFCCC also underscore the synergies between biodiversity conservation, climate action, and sustainable development. The integration of NBS into national policies and international frameworks aligns with UNEA's vision of a world where human progress is intricately intertwined with the preservation of biodiversity. UNEA underscores the transformative potential of NBS in shaping policies, guiding investments, and fostering international collaboration. The assembly's resolutions and initiatives echo the need to mainstream these solutions in national and global strategies. By enhancing ecosystem services, NBS pave the way for resilient communities, enhanced food security, and improved quality of life.[18]

However, while NBS present many promises, it is critically important to ensure that such approaches safeguard and strengthen the rights of indigenous peoples and local communities in the use and governance of natural resources. Overlooking the human dimensions of conservation risks marginalizing local communities and exacerbating inequities.[19] The 2020 adoption of the IUCN Global Standard for NBS is significant, given its explicit criteria and indicators pertaining to the inclusion and rights of indigenous peoples and local communities.[20] Without compliance

[17] Paul L. G. Vlek, Asia Khamzina, and Lulseged Tamene, "Land Degradation and the Sustainable Development Goals: Threats and Potential Remedies" (2017) http://ciat-library.ciat.cgiar.org/Articulos_Ciat/biblioteca/LAND_DEGRADATION_AND_THE_SDGs-THREATS_AND_POTENTIAL_REMEDIES.pdf accessed February 7, 2024.

[18] United Nations General Assembly, "Global Health and Foreign Policy" Resolution adopted by the General Assembly on December 18, 2013, A/RES68/98 (February 7, 2014) https://documents.un.org/doc/undoc/gen/n13/445/33/pdf/n1344533.pdf?token=E0Dg1dyEikB1XMkTho&fe=true accessed February 7, 2024.

[19] Ibid.

[20] IUCN, *Global Standard for Nature-Based Solutions: A User-Friendly Framework for the Verification, Design and Scaling up of NBS* (IUCN 2020). https://portals.iucn.org/library/sites/library/files/documents/2020-020-En.pdf accessed February 7, 2024.

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with these criteria, an initiative cannot be formally recognized as an NBS activity. However, it is essential to note that the mere adoption of the IUCN Global Standard does not guarantee the integration of rights within NBS practices. Simply adopting the standard does not automatically translate into its effective implementation. There is a potential risk that the standard might be disregarded in other international agreements or diluted as stakeholders hastily label various activities as NBS.[21] Therefore, it is imperative to actively promote and ensure the practical adoption of the NBS standard by governments and other stakeholders. True commitment to upholding the principles of the standard, as well as implementing human rights safeguards to address adverse impacts of NBS programs on fundamental human rights, is vital to ensure that NBS initiatives genuinely encompass the inclusion and rights of indigenous communities and local populations.[22]

An HRBA offers a transformative lens to reconcile biodiversity conservation and land rights, promoting sustainable outcomes for both.[23] The intersection of land rights, biodiversity conservation, and an HRBA to NBS is an important and complex topic. This approach emphasizes the rights and well-being of local communities and indigenous peoples while striving to achieve conservation goals. This approach acknowledges that indigenous peoples and local communities often have a deep connection to and dependency on their land and resources. It emphasizes their rights to participation, prior informed consent, and benefit-sharing in conservation initiatives.[24] Secure land tenure and resource rights can empower local communities to engage in sustainable land management and conservation practices. Acknowledging and respecting indigenous knowledge, involving communities in decision-making processes, and ensuring equitable benefit-sharing are pivotal steps to mitigate the unintended consequences of green grabbing.

This approach aligns with the principles of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP),[25] which emphasizes the imperative to harmonize biodiversity conservation with human rights and social justice through an HRBA. UNDRIP, adopted by the United Nations General Assembly in 2007, serves as a cornerstone for recognizing the rights and contributions of indigenous

[21] Ibid.

[22] Mikkel Funder and Marie Ladekjær Gravesen, "How to Support a Rights-Based Approach to Nature-Based Solutions: Recommendations for Danish Development Cooperation" (Danish institute for International Studies, February 2022). www.diis.dk/en/research/how-to-support-a-rights-based-approach-to-nature-based-solutions accessed February 7, 2024.

[23] Damilola Olawuyi, "Advancing Climate Justice in International Law: An Evaluation of the United Nations Human Rights Based Approach" (2015) 11 *Florida A&M Law Review* 1, 103 https://commons.law.famu.edu/cgi/viewcontent.cgi?referer=&httpsredir=1&article=1145&context=famulawreview accessed February 7, 2024.

[24] David Boyd, *The Environmental Rights Revolution: A Global Study of Constitutions, Human Rights, and the Environment* (UBC Press 2011).

[25] United Nations General Assembly, *United Nations Declaration on the Rights of Indigenous Peoples* (Office of the High Commissioner for Human Rights 2007) www.ohchr.org/en/indigenous-peoples/un-declaration-rights-indigenous-peoples accessed September 15, 2024.

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peoples across the globe, particularly in the context of environmental and biodiversity conservation.[26] The HRBA places emphasis on addressing and mitigating human rights impacts of NBS by integrating five interconnected human rights norms and principles into decision-making, namely: participation and inclusion; access to information; nondiscrimination and equality; empowerment and accountability; and legality and access to justice (the PANEL Principles).[27] As Olawuyi notes, by implementing the PANEL principles in the design, approval, finance, and implementation of projects, policymakers could have better opportunities to anticipate and consider the overall impacts of a project on the public and then take steps to mitigate them.[28] The HRBA emphasizes the need to ensure that projects or policies intended to advance environmental protection and development do not result in adverse human rights consequences.[29] By recognizing the intricate interplay between biodiversity conservation, human rights, and green grabbing, policymakers and practitioners can work toward inclusive solutions that prioritize community rights, equitable benefit-sharing, and collaborative governance. Such a rights-based approach to biodiversity and ecosystem management would address inequalities in conservation efforts, thereby fostering harmonious coexistence between NBS and the preservation of human rights, local livelihoods, and cultural heritage.[30]

In the MENA region, the intersection of land rights, biodiversity conservation, and NBS presents a complex landscape influenced by cultural, legal, and environmental factors. The region's diverse ecosystems, from the Mediterranean coasts to arid deserts, are critical for both biodiversity preservation and local livelihoods. However, rapid urbanization, agricultural expansion, and resource extraction have often encroached upon indigenous and local communities' land rights, leading to conflicts between development and conservation goals. The MENA region's complex legal and institutional frameworks further complicate the situation.[31] For instance, in Morocco, the shift toward recognizing indigenous Amazigh

[26] Ibid.

[27] Olawuyi (n 23). See also United Nations, "The Human Rights Based Approach to Development Cooperation towards a Common Understanding among UN Agencies" (2003) https://unsdg.un.org/resources/human-rights-based-approach-development-cooperation-towards-common-understanding-among-un accessed February 7, 2024.

[28] Olawuyi (n 23).

[29] United Nations Human Rights Based Approach (HRBA) Portal, "The Human Rights Based Approach to Development Cooperation: Towards a Common Understanding among UN Agencies" (2003) https://hrbaportal.org/the-human-rights-based-approach-to-development-cooperation-towards-a-common-understanding-among-un-agencies/ accessed February 7, 2024.

[30] UNEP, *Adopting a Human Rights-based Approach to Ecosystem-Based Adaptation: A Contribution to Sustainable Development* (UNEP 2022); also Mikkel Funder and Marie Ladekjaer Gravesen, "How to Support a Rights-Based Approach to Nature-Based Solutions: Recommendations for Danish Development Cooperation" (Danish Institute for Development Studies, February 23, 2022).

[31] Saad Ahmad, Eleni Karampi, Lucy Ridout, and Kotono Takeshita, *Anti-Discrimination Laws in Middle East and North Africa: Egypt, Iran, Türkiye, and Tunisia* (Minority Rights 2024) https://minorityrights.org/resources/anti-discrimination-laws-in-middle-east-and-north-africa-egypt-iran-turkiye-and-tunisia/ accessed September 15, 2024.

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communities' land tenure rights has set a precedent for aligning biodiversity conservation with human rights.[32] The recognition of these communities' traditional knowledge and their role in sustainable resource management is pivotal for successful NBS. Addressing such intricacies requires a holistic approach that integrates local perspectives, respects indigenous rights, and harnesses NBS to promote both biodiversity conservation and community well-being. By adopting inclusive policies that involve local communities in decision-making, MENA countries can create a harmonious coexistence between land rights, biodiversity, and NBS that embodies the principles of sustainability and social equity.

6.3 Legal and Institutional Barriers to Implementing a Rights-Based Approach to Conservation in the MENA Region: Lessons from Morocco

This section examines the opportunities and challenges to implementing an HRBA to NBS in the MENA region. The legal and institutional framework plays a pivotal role in protecting land rights and addressing the specter of green grabbing within the realm of designing and implementing NBS for biodiversity and nature conservation. Crafting a robust legal framework involves enacting policies that prioritize the recognition and protection of local communities' land tenure rights. This entails acknowledging their traditional knowledge, cultural ties, and historical use of land. In addition, integrating mechanisms for obtaining free, prior, and informed consent from affected communities before initiating conservation projects is essential to ensure their meaningful participation and prevent involuntary displacement.[33]

6.3.1 *Legal Challenges Associated with the Human Rights-Based Approach: Lessons from Morocco*

The intricate legal and institutional barriers to implementing a rights-based approach to conservation in the MENA region are exemplified by Morocco's experiences. Morocco's legal amendments, including constitutional changes recognizing indigenous rights, have played a pivotal role in overcoming barriers to conservation. For instance, though not without criticisms, the recognition of Amazigh communities' customary land tenure rights empowers them to contribute to conservation efforts

[32] S. Gagliardi, "Indigenous Peoples' Rights in Morocco: Subaltern Narratives by Amazigh Women" (2019) 23 *International Journal of Human Rights* 1–2, 281; Bernadette Montanari and Sylvia I. Bergh, "Why Women's Traditional Knowledge Matters in the Production Processes of Natural Product Development: The Case of the Green Morocco Plan" (2019) 77 *Women's Studies International Forum*, 102275.

[33] UNEP (n 30); see also Olawuyi (n 9).

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while preserving their cultural heritage.[34] This recognition underscores the potential for integrating indigenous perspectives into broader conservation strategies.[35]

Institutionally, establishing oversight bodies responsible for monitoring and evaluating the social and environmental impacts of NBS can mitigate the risk of green grabbing.[36] Collaborative governance structures that include representatives from local communities, civil society, and governmental bodies can facilitate transparent decision-making processes. By fostering inclusive engagement, respecting land rights, and embedding legal safeguards within institutional mechanisms, the potential for green grabbing can be significantly reduced, enabling NBS to achieve their intended conservation objectives while safeguarding the rights and well-being of those directly affected by these initiatives.[37]

Morocco's journey toward recognizing and safeguarding indigenous and local community rights offers invaluable insights. The nation's efforts in implementing sustainable environmental practices and conservation initiatives have yielded significant accomplishments. In 2016, Morocco was among the early signatories of the Paris Agreement, showcasing its commitment to addressing climate change.[38] Morocco has formulated its NDC with ambitious objectives aimed at substantial carbon emissions reduction.[39] This is despite the fact that the country is responsible for only a small share of the global problem of climate change, at 0.18 percent of global greenhouse gas emissions.[40] Notably, Morocco is one of only two global economies (along with Gambia) whose target is within the 1.5°C threshold.[41] In practical terms, this signifies that the kingdom is committed to achieving a net-zero-emission economy by around 2050.[42]

[34] Article 5 of Morocco's 2011 constitution states that "Tamazight constitutes an official language of the State, being common patrimony of all Moroccans without exception." *Maroc: Constitution* (July 29, 2011) www.refworld.org/legal/legislation/natlegbod/2011/fr/17605 accessed February 08, 2024.

[35] Minority Rights Group International, "Submission to the United Nations Universal Periodic Review of Morocco" (November 2022) https://minorityrights.org/app/uploads/2024/01/upr41-mrg-morocco-full.pdf accessed February 08, 2024.

[36] UNEP (n 30); see also Olawuyi (n 9).

[37] UNEP (n 30); see also Olawuyi (n 9).

[38] Kingdom of Morocco, "Nationally Determined Contribution" (2021) https://unfccc.int/sites/default/files/NDC/2022-06/Moroccan%20updated%20NDC%202021%20_Fr.pdf accessed February 7, 2024.

[39] Ibid.

[40] International Monetary Fund: Middle East and Central Asia Dept, "Morocco: Request for an Arrangement under the Resilience and Sustainability Facility-Press Release; Staff Report; Supplement; Staff Statement; and Statement by the Executive Director for Morocco" (IMF Staff Country Reports 2023) (354), A00, Box 1 www.elibrary.imf.org/view/journals/002/2023/354/article-A001-en.xml#RA001bx01 accessed February 7, 2024.

[41] The 2014 Intergovernmental Panel on Climate Change AR5 serves the scientific basis for the 2015 Paris Agreement. It sets the 1850–1900 period as a proxy for the pre-industrial period. To date, the planet has warmed 1.2°C above pre-industrial levels. C. F. Schleussner et al., "Science and Policy Characteristics of the Paris Agreement Temperature Goal" (2016) 6 *Nature Climate Change* 7, 827.

[42] This is in order to minimize the worst climate impacts, and avoid irreversible damage to our societies, economies, and the environment. Kingdom of Morocco (n 38).

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Morocco's legal framework for environmental rights is primarily composed of the Constitution, international agreements, and national laws and regulations.[43] The Constitution of Morocco, amended in 2011, recognizes the right to a healthy environment as a fundamental human right, setting the foundation for environmental protection and sustainable development.[44] Additionally, Morocco has ratified several international conventions, such as the Paris Agreement and the Convention on Biological Diversity, contributing to the legal framework supporting environmental rights within the country. Morocco's Green Generation Strategy 2020–2030 places human rights and the welfare of farmers at the heart of agricultural development and biodiversity management.[45] Furthermore, in Morocco, a range of environmental institutions diligently oversees and enacts policies, regulations, and conservation measures. These include the Ministry of Energy, Mines, and Environment, which spearheads the development and execution of initiatives concerning environmental protection, sustainable development, and energy management.[46] The High Commissioner for Water, Forests, and Combating Desertification is instrumental in managing forests and water resources and combating desertification while preserving biodiversity. The National Office for Electricity and Drinking Water plays a pivotal role in the supply of clean drinking water and electricity, emphasizing environmentally conscious energy production. Furthermore, the Agency for the Development of Renewable Energy and Energy Efficiency focuses on advancing renewable energy and enhancing energy efficiency. Alongside these key bodies, the Regional Environmental Directorates operate at the local level, implementing environmental regulations and policies. Together, these entities have a mandate to collaboratively advance biodiversity conservation, water resource management, climate change mitigation, sustainable energy initiatives, and the overall goal of promoting environmental sustainability throughout Morocco.

During the years 2001–2018, Morocco's environmental development has shown significant improvement, especially in the infrastructure aspect. Morocco invested 64.2 billion Moroccan dirhams between 1995 and 2017 to improve access to water in rural areas (97 percent) and urban areas (100 percent) and sanitation throughout the country.[47] Morocco spent US$33.8 million for the period of 2014–2015 to widen and extend electricity access in the country. This could explain the increase in the proportion of the rural population with access to electricity from 97.8 percent in 2016

[43] See a list of Morocco's legislation, *Country Profile: Morocco*, FAOLEX www.fao.org/faolex/country-profiles/general-profile/en/?iso3=MAR accessed February 7, 2024.

[44] *Maroc: Constitution* (n 34).

[45] Kingdom of Morocco, "Green Generation Strategy 2020–2030" www.maroc.ma/en/content/generation-green-2020-2030 accessed February 7, 2024.

[46] See Chapter 4.

[47] National Office of Electricity and Drinking Water, "L'Electricité au Service du Développement" www.one.org.ma/FR/pdf/Brochure%20institutionnelle%202019%20ONEE%20BE%20version%20fran%C3%A7aise.pdf accessed February 7, 2024.

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to 99.78 percent in 2020.[48] The country's commitment to renewable energy can be demonstrated through the projects that have been set up, such as the solar station Nour with a total investment of US$9 billion, which will help provide 52 percent of the kingdom's energy needs by 2030. Moreover, Morocco has implemented a set of programs to integrate sustainability into port management through the adoption of International Convention for the Prevention of Pollution from Ships with an investment of 200 million Moroccan dirhams. Morocco has strengthened its legal framework to protect fishery resources in an effective manner and has banned the use of gillnets. To preserve the national environment from desertification and wildfires, the national strategy Morocco Forests 2020–2030 is targeting the protection of the national forests. However, Morocco is still struggling with the extinction of some endangered species of wild fauna and flora. Hence, the government has strengthened its legal arsenal (Law No. 29-05) and adopted the international convention concerning the trade of endangered species. Moreover, within the framework of international cooperation, financing mobilized amounts of nearly US$200 billion between 1980 and 2020.[49]

Despite the progress, however, a lack of clear and explicit mention of land and indigenous rights in environmental legislation remains a key challenge to a rights-based approach.[50] Legal frameworks need to evolve to explicitly acknowledge the rights of these communities to their ancestral lands and resources. The constitutional amendments in Morocco, which recognized indigenous rights, exemplify the significance of such legal reforms. Institutionally, empowering local communities through participatory approaches is essential. Morocco's progress in engaging with indigenous Amazigh communities serves as a model for meaningful community participation in conservation decision-making. Additionally, the shift toward decentralized governance in Morocco's regionalization initiatives signifies the potential for enhancing local autonomy and ensuring that conservation strategies align with community priorities. By adapting and applying these lessons, the MENA region can foster a rights-based conservation paradigm that not only protects its rich biodiversity but also upholds the rights and well-being of indigenous and local communities, paving the way for sustainable and equitable conservation outcomes.

The pursuit of an HRBA to NBS in Morocco encounters several significant legal challenges. While NBS initiatives are inherently rooted in the environmental purposes to achieve sustainability and addressing climate change, they must be

[48] Ministry of Energy Transition and Sustainable Development, "Stratégie Nationale de L'Efficacité Energétique à L'horizon 2030" (2022) www.mem.gov.ma/Lists/Lst_rapports/Attachments/33/Strat%C3%A9gue%20Nationale%20de%20l'Efficacit%C3%A9%20%C3%A9nerg%C3%A9tique%20%C3%A0%20l'horizon%202030.pdf accessed February 7, 2024.

[49] Ibid.

[50] Minority Rights Group International (n 35). See also International Land Coalition, "New Moroccan Land Laws Imperil Amazigh People" (August 9, 2019), available at https://emena.landcoalition.org/es/newsroom/new-moroccan-land-laws-imperils-amazigh-people/ accessed February 7, 2024.

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implemented in a way that respects and upholds human rights, such as the right to a healthy environment, access to clean water, and protection of indigenous people's land rights. First, the lack of clear recognition of land and resource rights for indigenous communities and local populations poses a substantial challenge.[51] Without explicit legal protection, conflicts and disputes over land use and resource access could undermine NBS efforts. Additionally, the absence of human rights language within Morocco's environmental and biodiversity legislation complicates the alignment of NBS projects with international human rights standards.[52] Morocco's constitutional amendments have played a pivotal role in advancing biodiversity conservation by recognizing and prioritizing the rights of indigenous communities and local populations. The 2011 constitutional reforms marked a watershed moment in this regard, as they acknowledged the cultural and historical ties of indigenous Amazigh communities to their ancestral lands and resources.[53]

Morocco's constitutional amendments have played a pivotal role in advancing biodiversity conservation by recognizing and prioritizing the rights of indigenous communities and local populations. This discrepancy can lead to ambiguity in addressing human rights violations. The need for institutional coordination between entities that are responsible for human rights and environmental protection highlights the complexity of harmonizing conservation objectives within the rights of local communities. The 2011 constitutional reforms marked a watershed moment in this regard, as they acknowledged the cultural and historical ties of indigenous Amazigh communities to their ancestral lands and resources. For instance, the inclusion of Article 5 in the Moroccan Constitution explicitly recognized Amazigh as an official language and celebrated the diverse cultural heritage of the nation.[54] The recognition of Amazigh communities' traditional land tenure rights has empowered them to contribute to conservation efforts in the Souss-Massa National Park.[55] This recognition ensures the inclusion of indigenous perspectives in conservation planning and demonstrates the significance of legal reforms in promoting equitable conservation.

These amendments underscored the importance of environmental protection and sustainable development, enshrining the state's responsibility to safeguard

[51] IUCN, "A Rights-Based Path for People and Planet: Realising Human Rights in the Post-2020 Global Biodiversity Framework" (2022) www.iucn.org/story/202212/rights-based-path-people-and-planet-realising-human-rights-post-2020-global accessed February 7, 2024.

[52] IUCN, "Towards the Implementation of Nature-Based Solutions in Climate Policies in Morocco and Tunisia" (July 6, 2018) www.iucn.org/news/mediterranean/201807/towards-implementation-nature-based-solutions-climate-policies-morocco-and-tunisia accessed February 7, 2024.

[53] Article 5 of Morocco's 2011 constitution states that "Tamazight constitutes an official language of the State, being common patrimony of all Moroccans without exception."

[54] The state works for the protection and for the development of the Arabic language, as well as the promotion of its use. Likewise, Tamazight (Berber/Amazigh) constitutes an official language of the state, being a common patrimony of all Moroccans without exception.

[55] Julius Arnegger, *Protected Areas, the Tourist Bubble and Regional Economic Development: Two Case Studies from Mexico and Morocco* (Würzburg University Press 2014) 80–102.

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natural resources and preserve ecological balance for future generations. The recognition of indigenous rights and the commitment to environmental preservation within the constitutional framework have provided a solid foundation for biodiversity conservation efforts in Morocco, demonstrating the potential of legal reforms to align conservation objectives with respect for local cultures and traditions.[56] In analyzing the narratives of Amazigh cultural groups and movements, it is crucial to differentiate between the movements' agendas and demands to the state on one hand and the needs and concerns of the overall Amazigh population, and specifically women, on the other. Different strategies and priorities seem at play in the Amazigh movement's demands for group rights.[57]

Furthermore, the absence of constitutional recognition pertaining to ancestral lands, group or indigenous rights, and the acknowledgment of diverse ethnicities is a significant lacuna in the legal framework.[58] This deficiency not only overlooks the historical and cultural significance of these elements but also fails to provide the necessary safeguards for the rights and identities of indigenous communities. This omission can lead to a range of socio-political challenges, including land disputes, cultural erosion, and the marginalization of minority groups. Therefore, it is imperative that the legal system evolves to encompass these vital aspects, ensuring a more inclusive and equitable society. This approach was confirmed by the 2014 census, which contained no ethnicity-based questions but merely questions on mother tongue and daily spoken languages. In addition to this, it is unconstitutional to form linguistic- and ethnic-based political parties or to bring harm to the permanent characteristics of the kingdom.[59]

Closely related to lack of clear recognition of HRBA in environmental legislation are institutional gaps that limit the coordination between environment, biodiversity, and human rights institutions.[60] Human rights are fundamentally linked to environmental conservation, yet the absence of cohesive collaboration between relevant institutions complicates the effective integration of these crucial aspects into policies and practices. Insufficient coordination often leads to disjointed efforts, resulting in a fragmented approach toward ensuring both environmental protection and the preservation of human rights. Yet in Morocco, as is the case in many MENA countries, environmental and human rights programs are within the purview of different institutions and agencies with diverse programs and objectives.[61] Lack of clear integration of their respective programs and mandate, and the limited sharing

[56] Minority Rights Group International (n 35).
[57] Silvia Gagliardi, "Indigenous Peoples' Rights in Morocco: Subaltern Narratives by Amazigh Women" (2019) 23 *The International Journal of Human Rights* 1–2, 281.
[58] See Damilola Olawuyi, *Environmental Law in Arab States* (Oxford University Press 2022).
[59] Gagliardi (n 57).
[60] Damilola Olawuyi, "Sustainable Development and the Water–Energy–Food Nexus: Legal Challenges and Emerging Solutions" (2020) 103 *Journal of Environmental Science & Policy* 1.
[61] Minority Rights Group International (n 35).

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of information and best practices, constrain the integration required to mainstream and adopt the HRBA in the design and implementation of NBS programs.

As NBS takes root across the region as a tool for halting biodiversity loss, there is a need for clear and comprehensive rights-based instruments that integrates land rights and the protection of indigenous communities in NBS programs. Section 6.4 discusses a step-by-step approach for implementing an HRBA to NBS.

6.4 MINDING THE GAPS: RECOMMENDATIONS

Advancing a human rights-based approach to NBS demands a multidimensional framework that harmonizes ethical, legal, and environmental considerations. Here are some key recommendations to ensure an HRBA to NBS in Morocco and across the MENA region.

First is the need for clear and comprehensive national strategies and legislation on NBS as a tool for promoting biodiversity and nature conservation. Without a clear regulatory framework on NBS, its implementation may remain ad hoc and incoherent. In addition to recognizing a rights-based approach in national biodiversity strategies and action plans, a clear regulatory framework on NBS will provide an opportunity for MENA countries to mandate the need for human rights due diligence in the design and implementation of NBS to detect and address adverse human rights impacts that may arise.[62] Failure to clearly mandate biodiversity actors to track the human rights impacts of programs such as NBS, especially on at-risk groups such as indigenous peoples, local communities, peasants, and rural women, exacerbates land grabs and a lack of clear integration of human rights considerations in implementation. As Boyd and Keene note, "such laws should include substantial penalties for noncompliance, and should require that all businesses and their subsidiaries: conduct pre-investment due diligence on the potential human rights and environmental risks associated with their contemplated operations and supply chains."[63] In addition to mandating human rights due diligence before the approval of NBS schemes, there is also a need to continue to monitor the implementation of such programs such that initiatives that do not satisfy human rights and environmental standards commensurate with both national and international law could be promptly detected and stopped.[64] Urgent drafting and enactment of supporting legislation, integration of laws, adequate resource allocation, and enhanced community involvement through awareness campaigns and participation in decision-making processes are crucial recommendations for

[62] David Boyd and Stephanie Keene, "Human Rights-Based Approaches to Conserving Biodiversity: Equitable, Effective and Imperative" Policy Brief 1 (August 2021) www.ohchr.org/sites/default/files/Documents/Issues/Environment/SREnvironment/policy-briefing-1-summary.pdf accessed February 7, 2024.

[63] Ibid.

[64] Ibid. See also Olawuyi (n 9).

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addressing these challenges and advancing an HRBA to nature conservation and biodiversity programs.

Equally important is the need to foster institutional coordination between human rights and environmental institutions. The siloed nature of these institutions impedes the development of comprehensive strategies that can effectively balance environmental sustainability with the safeguarding of human rights. Establishing stronger institutional coordination and collaboration mechanisms is imperative to harmonize efforts, ensuring that environmental conservation aligns with the principles of human rights and vice versa, fostering a more holistic and effective approach to sustainable development. Collaborative governance involves partnerships between government entities, local communities, and other stakeholders in decision-making processes. In Morocco, collaborative models such as co-management have proven pivotal in surmounting institutional barriers. The co-management of Argan forests in the Souss-Massa region exemplifies how local communities, governmental bodies, and nongovernmental organizations could collaboratively manage these ecosystems. This approach fosters a sense of ownership among local communities, enabling them to actively participate in conservation strategies.[65] Collaborative governance empowers communities to be active partners rather than passive beneficiaries.[66] The High Atlas Foundation's Agdal Restoration Project stands as a testament to this approach, where local communities contribute their traditional knowledge to restore Agdal systems.[67] This collective decision-making process reinforces cultural ties to the land, promoting both conservation and socio-economic development.[68] Morocco's progress and challenges in implementing collaborative governance models offer valuable lessons to the broader MENA region. By promoting community engagement, recognizing customary land tenure systems, and ensuring equitable benefit-sharing, MENA countries can address legal and institutional barriers while fostering conservation rooted in local knowledge and values.[69]

6.5 CONCLUSION

The alignment of academic research and international agreements with UNEA's emphasis on biodiversity conservation and NBS underscores the global recognition of biodiversity's vital role. As academic insights inform international agreements and

[65] Arnegger (n 55).

[66] UNEP (n 30), see also Olawuyi (n 9).

[67] Laurent Auclair et al., "Patrimony for Resilience: Evidence from the Forest Agdal in the Moroccan High Atlas Mountains" (2011) 16 *Ecology and Society* 4. See also Kira Walker, "A Model for Land Management, Morocco's Agdals Are at Risk of Disappearing" (*New Lines Magazine*, November 15, 2023) https://newlinesmag.com/reportage/a-model-for-land-management-moroccos-agdals-are-at-risk-of-disappearing/ accessed February 08, 2024.

[68] Walker (n 67).

[69] M. Meziani, "Beyond Participation: Can Collaborative Management Enable Adaptive Co-management in Morocco?" (2004) 56 *World Development* 11.

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policy decisions, and as UNEA champions these strategies, a united effort emerges to secure a sustainable future where biodiversity flourishes alongside human development. NBS presents innovative pathways to address pressing environmental challenges, but their efficacy hinges on the acknowledgment of land rights. The intricate link between land rights and conservation underscores the necessity of equitable solutions that uphold the rights of indigenous and local communities while pursuing biodiversity protection and sustainable development.

An HRBA is imperative to safeguard land rights within NBS. Instruments such as the UNDRIP emphasize the importance of free, prior, and informed consent in development projects that impact indigenous lands. Integrating these principles ensures equitable decision-making and recognizes the cultural significance of land for communities. Morocco's experiences underscore the significance of collaborative governance in transcending legal and institutional barriers to conservation. By engaging communities, acknowledging indigenous rights, and promoting inclusive decision-making, MENA countries can pave the way for harmonious conservation efforts that uphold human rights, cultural heritage, and biodiversity.

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