

Environmental Justice on the Ground: Involving Communities in Restoring Ecosystems for Posterity

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Posterity**

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Abstract

This paper examines how the ideal of environmental justice can be attained for vulnerable groups with a focus on local communities and indigenous peoples. The paper observes that actualising environmental justice is vital for local communities and indigenous peoples due to the disproportionate impacts they face from environmental hazards including climate change, pollution and biodiversity loss. In particular, the paper notes that indigenous peoples and local communities are adversely impacted by biodiversity loss and ecosystem degradation since their lives, livelihoods, identity, culture and spirituality are intrinsically tied to nature. Consequently, the paper posits that halting and reversing biodiversity loss including through restoring damaged and degraded ecosystems is crucial towards realising environmental justice for indigenous peoples and local communities. The paper explores how indigenous and local communities can be meaningfully involved in restoring ecosystems towards securing environmental justice for people and planet.

1.0 Introduction

Environmental justice is a concept that highlights the plight of vulnerable people and communities who bear the most burden when it comes to environmental damage and seeks to give them a voice through access to environmental information, participation in environmental decision-making processes and access to justice in order to ensure sustainable and equitable development¹. In particular, environmental justice focuses on protecting vulnerable people and communities, including people of colour, indigenous and local communities, women and the youth who are disproportionately impacted by environmental hazards including the triple planetary crisis of climate change, pollution and biodiversity loss². At its core, environmental justice means that every person regardless of race, colour, nationality, origin, or income has the right to the same environmental protection and benefits, as well as meaningful involvement in environmental policy making³.

Actualising the ideal of environmental justice is vital for both people and planet. For instance, it has been observed that environmental threats including the triple planetary crisis, undermine the enjoyment and protection of fundamental human rights and fuel injustices since they disproportionately affect the most vulnerable, marginalized and excluded people and communities⁴. By recognising these injustices,

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¹ Muigua. K., Wamukoya. D., & Kariuki. F., 'Natural Resources and Environmental Justice in Kenya.' Glenwood Publishers Limited, 2015

² United Nations Development Programme., 'Five steps to environmental justice' Available at <https://www.undp.org/blog/five-steps-environmental-justice> (Accessed on 13/05/2026)

³ The Environmental Justice Movement., Available at <https://www.nrdc.org/stories/environmental-justice-movement> (Accessed on 13/05/2026)

⁴ United Nations Development Programme., 'Environmental Justice' Available at <https://www.undp.org/geneva/environmental-justice> (Accessed on 13/05/2026)

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environmental justice provides a framework for addressing environmental inequities, disparate impact of environmental crises, and unequal protection in environmental matters⁵. Fostering environmental justice is therefore key towards confronting environmental threats including climate change, pollution and biodiversity loss while ensuring equity, justice, fairness and human rights for every person⁶. By fostering this ideal, it is possible to ensure that all people and communities enjoy the right to live and thrive in clean, safe, healthy and sustainable environments with equal environmental protections and meaningful involvement environmental decision-making processes⁷.

This paper examines how the ideal of environmental justice can be attained for vulnerable groups with a focus on local communities and indigenous peoples. The paper observes that actualising environmental justice is vital for local communities and indigenous peoples due to the disproportionate impacts they face from environmental hazards including climate change, pollution and biodiversity loss. In particular, the paper notes that indigenous peoples and local communities are adversely impacted by biodiversity loss and ecosystem degradation since their lives, livelihoods, identity, culture and spirituality are intrinsically tied to nature. Consequently, the paper posits that halting and reversing biodiversity loss including through restoring damaged and degraded ecosystems is crucial towards realising environmental justice for indigenous peoples and local communities. The paper explores how indigenous and local communities can be meaningfully involved in restoring ecosystems towards securing environmental justice for people and planet.

2.0 Environmental Justice as a Fundamental Right for Vulnerable Communities

Vulnerable communities including indigenous and local communities are among those severely impacted by environmental injustices. For instance, it has been observed that indigenous peoples and local communities are among the first to face the direct consequences of climate change, due to their dependence upon, and close relationship, with the environment and natural resources⁸. Climate change disproportionately affects indigenous and local communities by threatening their livelihoods, health and traditional knowledge⁹. Indigenous and local communities all over the world depend on natural resources for their livelihoods and they often inhabit diverse but fragile ecosystems which are threatened by the impacts of climate change¹⁰. The consequences of ecosystem changes have implications for the use, protection and management of water, wildlife, fisheries and forests among other natural resources, affecting the economic, cultural, spiritual and customary significance of these resources to indigenous and

⁵ Ekhaton. E., & Agbaitoro. G., 'The Role of Environmental Justice in Promoting the Rule of Law in Natural Resource Conflict Resolution in Africa: A Case Study of Nigeria' Available at https://www.researchgate.net/publication/366640118_The_Role_of_Environmental_Justice_in_Promoting_the_Rule_of_Law_in_Natural_Resource_Conflict_Resolution_in_Africa_A_Case_Study_of_Nigeria (Accessed on 13/05/2026)

⁶ Ibid

⁷ American Public Health Association., 'Environmental Justice' Available at <https://www.apha.org/topics-and-issues/environmental-health/environmental-justice> (Accessed on 13/05/2026)

⁸ United Nations., 'Climate Change' Available at <https://www.un.org/development/desa/indigenouspeoples/climate-change.html> (Accessed on 14/05/2026)

⁹ The Impacts of Climate Change on Indigenous Communities., Available at <https://indigenousclimatehub.ca/effects-on-indigenous-communities/> (Accessed on 14/05/2026)

¹⁰ Nilsson. C., 'Climate Change from an Indigenous Perspective: Key Issues and Challenges' Available at https://www.iwgia.org/images/publications/IA%201-2_08_Climate_Change_from_ind_perspective.pdf (Accessed on 14/05/2026)

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local communities¹¹. Climate change fuels injustices against indigenous and local communities since they live sustainably and in harmony with nature and are not responsible for the climate crisis yet they bear the brunt of its impacts¹².

In addition to climate change, indigenous and local communities are adversely impacted by the consequences of biodiversity loss including ecosystem degradation. For many centuries, indigenous peoples and local communities have been successful guardians of the world's biodiversity through their innovation, knowledge and practices¹³. It has been observed that despite comprising just over 6 percent of the global population, indigenous peoples and local communities are custodians of more than a third of the planet's most important biodiversity hotspots¹⁴. Indigenous peoples and local communities are custodians of some of the most pristine ecosystems on Earth including forests, land and water resources¹⁵.

Despite their important role in preserving the planet's biodiversity and ecosystems, indigenous and local communities are disproportionately impacted by the ongoing global biodiversity loss. It has been correctly noted that indigenous and local communities rely on the environment and healthy ecosystems for their livelihoods, health and spiritual and cultural well-being¹⁶. For instance, most indigenous and local communities are hunter-gathers, pastoralists and small-scale farmers while also relying on ecosystems such forests for food and natural medicines¹⁷. Consequently, their ways of live, livelihoods and health depends on access to and sustainability of natural resources and ecosystems including land, forests and water¹⁸. Indigenous peoples and local communities are therefore severely impacted by ecosystem degradation. it has been correctly noted that due to their subsistence economies and spiritual connection to lands and territories, indigenous peoples and local communities suffer adversely from biodiversity loss and environmental degradation worsening their vulnerability and undermining their lives, livelihoods, and cultural and spiritual well-being¹⁹.

¹¹ Ibid

¹² United Nations Development Programme., 'Indigenous knowledge is crucial in the fight against climate change – here's why' Available at <https://climatepromise.undp.org/news-and-stories/indigenous-knowledge-crucial-fight-against-climate-change-heres-why> (Accessed on 14/05/2026)

¹³ United Nations Environment Programme World Conservation Monitoring Centre., 'Championing Indigenous Peoples' Stewardship of Biodiversity' Available at <https://www.unep-wcmc.org/en/news/championing-indigenous-peoples-stewardship-of-biodiversity> (Accessed on 14/05/2026)

¹⁴ Ibid

¹⁵ World Resources Institute., 'Protecting Biodiversity Hinges on Securing Indigenous and Community Land Rights' Available at <https://www.wri.org/insights/indigenous-and-local-community-land-rights-protect-biodiversity> (Accessed on 14/05/2026)

¹⁶ United Nations Environment Programme., 'Environmental Rule of Law: Tracking Progress and Charting Future Directions.' Available at https://wedocs.unep.org/bitstream/handle/20.500.11822/43943/Environmental_rule_of_law_progress.pdf?sequence=3 (Accessed on 14/05/2026)

¹⁷ African Commission on Human and Peoples' Rights., 'Indigenous Peoples in Africa: The Forgotten Peoples?' Available at <https://achpr.au.int/en/special-mechanisms-reports/indigenous-peoples-africa-forgotten-peoples> (Accessed on 14/05/2026)

¹⁸ Ibid

¹⁹ United Nations Environment Programme., 'Indigenous Peoples and the nature they protect' Available at <https://www.unep.org/news-and-stories/story/indigenous-peoples-and-nature-they-protect> (Accessed on 14/05/2026)

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With the planet's ecosystems being degraded and damaged at an alarming rate, indigenous and local communities are being disproportionately impacted raising environmental injustices. For example, it is estimated that nearly half of the world's tropical forests have been degraded in the past few decades with millions of hectares of forests being destroyed currently through deforestation and forest degradation²⁰. This situation adversely impacts indigenous and local communities who depend on healthy forests for food, fuel, water and natural medicines among other resources²¹. In addition, with coastal ecosystems including coral reefs, mangroves forests, and seagrass beds being degraded all over the world, vulnerable communities are disproportionately impacted by this crisis. For example, has been observed that marine plastic pollution causes injustices against vulnerable coastal communities who depend on a clean and healthy ocean for their survival²². Marine plastic pollution devastates coastal ecosystems and fuels marine biodiversity loss threatening the livelihoods and health of coastal communities all over the world²³. The United Nations Environment Programme (UNEP) observes that climate change, biodiversity loss, and pollution are degrading marine ecosystems, harming marine life, undermining the livelihoods of coastal communities, and negatively impacting health and well-being²⁴. Degradation of freshwater ecosystems including rivers and lakes also raises injustices against vulnerable communities who depend on these resources for their livelihoods and survival since they are a source of drinking water while also supporting fisheries and agriculture²⁵.

Vulnerable communities including indigenous peoples and local communities are therefore disproportionately impacted by environmental threats including climate change, biodiversity loss and pollution. In particular, degradation of the planet's critical ecosystems fuels injustices against indigenous and local communities threatening their lives, livelihoods, health, culture and spiritual well-being. Restoring ecosystems is therefore a vital approach towards fostering environmental justice for vulnerable communities.

3.0 Involving Communities in Restoring Ecosystems for Posterity

With vulnerable communities including indigenous and local communities being disproportionately impacted by ecosystem degradation, restoring ecosystems is vital towards achieving environmental justice. The concept of ecosystem restoration involves assisting in the recovery of ecosystems that have been degraded or destroyed, as well as conserving the ecosystems that are still intact²⁶. In addition, it has been observed that restoring ecosystems involves improvement of degraded land and ecosystems on a large

²⁰ International Union for Conservation of Nature., 'Deforestation and Forest Degradation' Available at <https://iucn.org/resources/issues-brief/deforestation-and-forest-degradation> (Accessed on 14/05/2026)

²¹ African Commission on Human and Peoples' Rights., 'Indigenous Peoples in Africa: The Forgotten Peoples?' Op Cit

²² United Nations Environment Programme., 'Neglected: Environmental Justice Impacts of Marine Litter and Plastic Pollution' Available at <https://www.unep.org/resources/report/neglected-environmental-justice-impacts-marine-litter-and-plastic-pollution> (Accessed on 14/05/2026)

²³ Ibid

²⁴ United Nations Environment Programme., 'Oceans, Seas and Coasts' Available at <https://www.unep.org/topics/ocean-seas-and-coasts> (Accessed on 14/05/2026)

²⁵ United Nations Environment Programme., 'Four Reasons to Protect Rivers' Available at <https://www.unep.org/news-and-stories/story/four-reasons-protect-rivers> (Accessed on 14/05/2026)

²⁶ What is Ecosystem Restoration?., Available at <https://www.decadeonrestoration.org/what-ecosystem-restoration> (Accessed on 14/05/2026)

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scale that rebuilds ecological integrity and enhances people's lives²⁷. Ecosystem restoration has also been defined as the process of assisting the recovery and rehabilitation of natural environments that have been degraded, damaged or destroyed²⁸.

According to UNEP, restoring ecosystems is one of the most important ways of delivering nature-based solutions to tackle challenges such as food insecurity, climate change, and biodiversity loss towards environmental justice²⁹. This approach aims to recover the ecological functionality and enhance human well-being in deforested and degraded landscapes and ecosystems³⁰. It has been observed that ecosystem restoration is an important process that not only returns landscapes and ecosystems to a healthy state, but also increases the amount of carbon sequestered, improves biodiversity and the quality of soil and water in the ecosystem, and provides economic benefits for communities that depend on such landscapes and ecosystems³¹.

Restoring ecosystems is therefore a key approach towards fostering environmental justice for people and planet. It has been correctly observed that ecosystems form the basis for all life on Earth since they generate oxygen, filter water, sequester carbon and produce food among other vital services³². Therefore, the healthier our ecosystems, the healthier our planet and the lifeforms that populate it³³. It has been observed that healthy and well-functioning ecosystems provide clean air, fresh water, medicines and food which are vital services in ensuring human health and well-being³⁴. In particular, vulnerable groups including indigenous peoples and local communities depend on healthy and well-functioning ecosystems for food, fresh water, fuel, medicines with ecosystems such as forests and mountains also supporting their cultural and spiritual practices and well-being³⁵.

It is therefore imperative to restore ecosystems in order to promote environmental justice for vulnerable communities. This ideal involves activities aimed at rebuilding ecological integrity through reducing or reversing the degradation pressure³⁶; reintroducing missing or declining biodiversity in ecosystems³⁷;

²⁷ Food and Agriculture Organization of the United Nations., 'The Key Role of Forest and Landscape Restoration in Climate Action.' Available at <https://www.fao.org/documents/card/en/c/cc2510en> (Accessed on 14/05/2026)

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³⁰ Food and Agriculture Organization of the United Nations., 'The Key Role of Forest and Landscape Restoration in Climate Action.' Op Cit

³¹ World Economic Forum., 'What are Natural Climate Solutions?' Available at <https://www.weforum.org/agenda/2021/09/what-are-natural-climate-solutions-ncsalliance/#:~:text=NCS%20are%20actions%20that%20avoid,forest%20conservation%2C%20restoration%20and%20management> (Accessed on 14/05/2026)

³² International Climate Initiative., 'UN Decade on Ecosystem Restoration' Available at <https://www.international-climate-initiative.com/en/topics/un-decade-on-ecosystem-restoration/> (Accessed on 14/05/2026)

³³ Ibid

³⁴ World Health Organization., 'Biodiversity and Health' Available at <https://www.who.int/news-room/fact-sheets/detail/biodiversity-and-health> (Accessed on 14/05/2026)

³⁵ Muigua. K., Wamukoya. D & Kariuki. F., 'Natural Resources and Environmental Justice in Kenya.' Glenwood Publishers Limited, 2015

³⁶ Whitbread-Abrutat. P., 'Exploring World Class Landscape Restoration.' Available at <https://futureterrains.org/wp-content/uploads/2017/11/WCMT-report-full-images.pdf> (Accessed on 14/05/2026)

³⁷ Ibid

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connecting disconnected landscape elements³⁸; and stimulating development of a self-sustaining system³⁹. Ecosystem restoration can be achieved through agroforestry, reforestation, assisted natural regeneration, introduction of native species to ecosystems and riparian restoration among other practices⁴⁰. Through this, it is possible to restore ecological integrity in damaged and degraded landscapes and ecosystems thus enhancing the well-being of people and planet.

In particular, involving communities in restoring ecosystems is vital towards securing environmental justice for people and planet. It has been observed that indigenous peoples and local communities depend on vital ecosystems including forests, grasslands, coastal ecosystems and wetlands for their livelihoods and survival and have therefore developed unique knowledge systems and practices which have enabled them to sustainably use and conserve ecosystems throughout time⁴¹. In particular, it has been observed that indigenous peoples and local communities have developed Traditional Ecological Knowledge (TEK) which has enabled them to ensure sound biodiversity conservation and ecosystem management throughout human history⁴². TEK provides key insights and deep understanding about the interaction of plants, animals and people within their ecosystems thus bolstering biodiversity conservation efforts⁴³. By utilising their TEK, indigenous and local communities have been able to ensure sustainable agriculture and land management through agroforestry, crop rotation and use of climate-resilient crops⁴⁴; sustainable water management⁴⁵; medicinal use of native plants⁴⁶; management of invasive species⁴⁷; and sound conservation of ecosystems including forests and fresh water resources⁴⁸.

Involving indigenous and local communities is therefore necessary towards harnessing their TEK in ecosystem restoration for environmental justice. For example, it has been observed that the knowledge and practices of indigenous peoples and local communities provide a deep understanding of forest ecosystems, ecological dynamics, seasonal variations, and the intricate relationships that connect humanity with nature thus providing a valuable resource towards sustainably managing, conserving and restoring forests⁴⁹. In addition, it has been pointed out that due to their knowledge on native plant species, seasonal changes, and threats to wetlands, working with local communities is key towards harnessing indigenous

³⁸ Ibid

³⁹ Ibid

⁴⁰ What is Ecosystem Restoration?., Op Cit

⁴¹ United States Environmental Protection Agency., 'Principles of Wetland Restoration' Available at <https://www.epa.gov/wetlands/principles-wetland-restoration> (Accessed on 14/05/2026)

⁴² Bixcul. B., 'Indigenous Peoples, Biodiversity, and the Responsibilities of Financial Institutions' Available at <https://www.culturalsurvival.org/news/indigenous-peoples-biodiversity-and-responsibilities-financial-institutions> (Accessed on 14/05/2026)

⁴³ Sinthumule. N., 'Traditional ecological knowledge and its role in biodiversity conservation: a systematic review' Available at <https://www.frontiersin.org/journals/environmental-science/articles/10.3389/fenvs.2023.1164900/full> (Accessed on 14/05/2026)

⁴⁴ Ibid

⁴⁵ United Nations Environment Programme., 'Indigenous peoples and their communities' Available at <https://www.unep.org/civil-society-engagement/major-groups-modalities/major-group-categories/indigenous-peoples-and> (Accessed on 14/05/2026)

⁴⁶ Ibid

⁴⁷ Ibid

⁴⁸ Ibid

⁴⁹ Akalibey. S et al., 'Integrating indigenous knowledge and culture in sustainable forest management via global environmental policies' *Journal of Forest Science.*, Volume 70, Issue 6 (2024), pp 265-280

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knowledge systems for effective wetland restoration efforts⁵⁰. Further, by involving communities including pastoralists, farmers and indigenous peoples, it is possible to effectively restore grasslands and savannahs including through assisted natural regeneration, reseeding native grasses, reintroducing native species, and managing grazing among other activities⁵¹.

Involving communities in restoring ecosystems can therefore yield more sustainable and effective outcomes for posterity.

4.0 Conclusion

With vulnerable groups including indigenous peoples and local communities being disproportionately impacted by environmental threats including biodiversity loss and ecosystem degradation, restoring ecosystems is an effective approach towards fostering environmental justice. In particular, involving communities in restoring ecosystems such as forests, wetlands and grasslands, is key towards harnessing their TEK for sustainable, durable and cost-effective outcomes⁵². It is therefore imperative to involve communities including indigenous peoples and local communities towards sound ecosystem restoration approaches for environmental justice and sustainability.

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⁵¹ Restoring Grasslands and Savannahs: Reviving the Planet's Overlooked Powerhouses., Available at <https://www.decadeonrestoration.org/restoring-grasslands-and-savannahs-reviving-planets-overlooked-powerhouses> (Accessed on 14/05/2026)

⁵² Sinthumule. N., 'Traditional ecological knowledge and its role in biodiversity conservation: a systematic review' Op Cit

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