

The Post-2020 Global Biodiversity Framework: Recognizing and Integrating Indigenous Knowledge and Practices into Bangladesh's Biodiversity Laws and Policies

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Abstract: The first draft of the Post-2020 Global Biodiversity Framework (GBF) calls on governments and all sectors of society as a whole, especially indigenous people, to take immediate and transformational action to halt biodiversity loss by 2030. This paper contends that increased recognition, integration of the indigenous community at the national policy level, and equitable distribution of profits deriving from their traditional knowledge would ameliorate the post-2020 national biodiversity conservation goals of Bangladesh. We examined how far the provisions of Bangladesh's key biodiversity conservation legislations are supportive of recognizing and integrating indigenous knowledge and practices (IKPs) at the policy level to realize the post-2020 global framework goal. The paper presents a desktop assessment of current legal frameworks on biodiversity conservation in order to highlight legal strengths that previously supported and promoted IKPs in biodiversity conservation. Furthermore, it attempted to identify legal gaps that require additional legislative actions to meet the commitments under post-2020 GBF. In light of the Post-2020 GBF, the study finds that Bangladesh's strategic approach to biodiversity could benefit from the synergy between government initiatives as well as the full and effective engagement of indigenous people. This article argues that constitutional amendments are required to embrace an inclusive approach to IKPs in Bangladesh's biodiversity conservation legislations and policies, which could explicitly encourage that synergy.

Keywords: Global Biodiversity Framework, biodiversity conservation, integration, indigenous knowledge and practices, and inclusive approach.

1. Introduction

Indigenous people (IP)¹ and their knowledge were formerly thought to be primitive, but it has since been shown that many of their methods for managing

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¹ There is no universally accepted definition of 'indigenous people' in international law or policy, and the UNDRIP is silent on the subject as well. According to a factsheet published by the UN Permanent Forum on Indigenous Issues, UN-system body refrained from adopting any official definition of 'Indigenous' due to the diversity of indigenous peoples. Several countries refer to indigenous people as tribes, aboriginals, first peoples/nations, ethnic groups, janajati.hillmen. In

natural resources are highly sophisticated and advanced.² In recent years, the integration of indigenous and local knowledge with science has been regarded as a complementary knowledge system for a comprehensive and profound understanding of biodiversity.³ This complementary knowledge could make a significant contribution in comprehending values, biodiversity functioning, and the impacts of biodiversity loss at various scales.⁴ The biological diversity of the earth has been dwindling in terms of richness, quantity, composition, and distribution.⁵ With minimal accomplishment and the majority of the targets not being completely met, the Aichi Biodiversity Targets (2011-2020) have been labeled as a 'massive failure'.⁶ As a result, the Convention on Biological Diversity (CBD) puts forth its Post-2020 Global Biodiversity Framework with the purpose of enabling governments and all societies including indigenous peoples and local communities, civil society, and businesses as a whole to take urgent and transformative actions⁷ to accomplish the CBD goals.⁸ To prevent biodiversity loss, capacities, concerns, and participation of indigenous people are necessary.⁹ Indigenous people have a long and profound relationship with their local ecosystems and hence have ingeniously and carefully managed¹⁰ their natural

Bangladesh, tribal people, upajati, indigenous, adibasis, ethnic minority, indigenous Hillman, and hillpeople/hillmen are all terms used by the government in its legal and regulatory documents, as well as in official communication.

- 2 Warren, D. M, 'Indigenous knowledge, biodiversity conservation and development' (Keynote address at the International Conference on Conservation of Biodiversity in Africa: Local Initiatives and Institutional Roles, Nairobi, Kenya 30 August-3 September 1992) <<http://www.ciesin.org/docs/004-173/004-173.html>> accessed 8 July 2021.
- 3 'Local Biodiversity Outlooks 2: Summary conclusions and recommendations. A complement to the fifth edition of Global Biodiversity Outlook' Forest Peoples Programme, International Indigenous Forum on Biodiversity, Indigenous Women's Biodiversity Network, Centres of Distinction on Indigenous and Local Knowledge and Secretariat of the Convention on Biological Diversity, (2020) 39 <www.localbiodiversityoutlooks.net> accessed 10 August 2021.
- 4 Ibid.
- 5 Paola Fajardo et al., 'Aichi Target 18 beyond 2020: mainstreaming Traditional Biodiversity Knowledge in the conservation and sustainable use of marine and coastal ecosystems' (2021) PeerJ. <<https://peerj.com/articles/9616/>> accessed 20 August 2021.
- 6 Secretariat of the Convention on Biological Diversity, 'Global Biodiversity Outlook 5' (2020), Montreal; Adam Vaughan, 'Massive failure': The world has missed all its biodiversity targets' *New Scientist* (London, 15 September 2020), <<https://www.newscientist.com/article/2254460-massive-failure-the-world-has-missed-all-its-biodiversity-targets/>> accessed 20 August 2021.
- 7 Lim, M, 'Biodiversity 2050: can the Convention on Biological Diversity deliver a world living in harmony with nature?' (2021) OYIEL <<https://doi.org/10.1093/yiel/yvaa079>> accessed 10 Nov 2021.
- 8 Convention on Biological Diversity, 'The First Draft of the Post-2020 Global Biodiversity Framework', (2021) <<https://www.cbd.int/doc/c/abb5/591f...wg2020-03-03-en.pdf>> accessed 12 July 2021.
- 9 Karen Denyer, et al., 'Learning from Experience: How indigenous peoples and local communities contribute to wetland conservation in Asia and Oceania' (2018) Ramsar Convention Secretariat 13.
- 10 UN Report, 'Nature's Dangerous Decline 'Unprecedented'; Species Extinction Rates 'Accelerating'' <<https://www.un.org/sustainabledevelopment/blog/2019/05/nature-decline-unprecedented-report/>> accessed 20 August 2021.

resources.¹¹ They contribute to biodiversity conservation by sustainably using biodiversity as a matter of survival rather than choice.¹²

Nature is decreasing worldwide at speeds unmatched in human history, wreaking havoc on people all around the planet.¹³ Biodiversity, on the other hand, is disappearing at a far slower rate on indigenous peoples' lands, demonstrating that they are successful protectors of their natural environment.¹⁴ Indigenous peoples' knowledge and traditions are paving the way for reciprocal human-nature interactions in the face of biodiversity loss.¹⁵ However, recent findings impart that the contribution of indigenous people are often disregarded and marginalized which signified worldwide failure to accomplish most of the biodiversity goals.¹⁶ Bangladesh's biodiversity is also dwindling, as is indigenous knowledge. Despite the fact that global discourse and actions are shifting in favor of recognizing the significance of IP's knowledge and practices in biodiversity conservation¹⁷, Bangladesh has paid little attention to this specific issue. Overlooking their contributions, including limited recognition in national biodiversity policies and action plans, is not only an imprudent stance, but also a wasted opportunity.¹⁸ Such contribution can be ameliorated through national recognition, access and resource rights, improved interactions¹⁹ and collaboration, the application of Prior Informed Consent (PIC) based on Mutually Agreed Terms (MAT), fair and equitable benefits sharing.²⁰

Before we get started, it is critical to review some of the existing research on IKP's recognition and inclusion in Bangladesh's biodiversity policies. One of the most

¹¹ Denyer (n 09).

¹² Ibid.

¹³ S. Díaz, J. Settele, et al., 'IPBES (2019): Summary for policymakers of the global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services' IPBES secretariat 56 12.

¹⁴ International Indigenous Forum on Biodiversity statement, 'IIFB opening statement to the Open Ended Working Group on the Post 2020 Global Biodiversity Framework February 2020', 2020 <<https://www.forestpeoples.org/sites...ing%20statement%20Feb%202020.pdf>> accessed 21 August 2021; Fernández-Llamazares et al., 'Scientists' Warning to Humanity on Threats to Indigenous and Local Knowledge Systems' (2021) 41(2) *Journal of Ethnobiology* 144-169; Reyes-García, V. et al., 'Recognizing Indigenous peoples' and local communities' rights and agency in the post-2020 Biodiversity Agenda' (2021) <<https://doi.org/10.1007/s13280-021-01561-7>> accessed 10 Aug 2021.

¹⁵ The Forest Peoples Programme (FPP), 'Islands of nature – the contributions of indigenous and local communities to conserving the world's biodiversity' (2020) <<https://www.forestpeoples.org/en/press-release/LBO2-launch-2020>> accessed 14 August 2021.

¹⁶ Local Biodiversity Outlooks 2 (n 3).

¹⁷ Gleb Raygorodetsky, 'Indigenous peoples defend Earth's biodiversity—but they're in danger' (National Geographic, 16 November 2018) <<https://www.nationalgeographic.com/environment/article/can-indigenous-land-stewardship-protect-biodiversity->> accessed 9 July 2021.

¹⁸ Secretariat of the Convention on Biological Diversity, 'Global Biodiversity Outlook 5' (2020), Montreal.

¹⁹ Ibid.

²⁰ Díaz (n 13) 18.

recent international scholarships on IKPs is Garcia et al's work on the indigenous people's rights and agency in global biodiversity agenda.²¹ It highlighted the importance of IKPs in developing realistic and efficient biodiversity goals, as well as their engagement in biodiversity policy as right holders. The role of IKPs in biodiversity conservation has been the subject of numerous previous comprehensive works.²² In the case of Bangladesh, most previous literature concentrated on the indigenous people's social and economic challenges²³, ignoring their rights and agency in environmental laws.²⁴ Furthermore, the issue of IKPs recognition and integration, in particular, has only been briefly addressed in earlier work on Bangladesh's biodiversity laws and policies, with no in-depth analysis.²⁵ In this article, we endeavored to underscore the recognition and integration of IKPs into Bangladesh's biodiversity laws and policies. Furthermore, we would like to point out that the inclusive legal framework can facilitate the gaps remaining in the biodiversity conservation policies of Bangladesh to meet the commitment under the post-2020 global biodiversity framework.

In order to achieve the goal, this article employed a legislative and policy analytic approach to identify legal gaps, constraints as well as to recommend required legislative measures, notably constitutional amendments. In addition, Bangladesh's position on this particular issue in international fora has been reassessed as well. Primary and secondary data are collected from a variety of sources. Literature review was employed as data collecting methods in this research. To begin, we combed through a large body of literature on indigenous knowledge and practices in biodiversity conservation and management. We examined a wide range of national and international legal instruments on biodiversity conservation that are pertinent to indigenous peoples' knowledge protection. We also reviewed IP and local community learning networks and international policy platforms. This approach is considered appropriate when the goal of the research is to investigate the legislative gaps that exist in response to the recognition and integration of the IKPs into Bangladesh's biodiversity

²¹ Reyes-García, V., et al., 'Recognizing Indigenous peoples' and local communities' rights and agency in the post-2020 Biodiversity Agenda' (2021) *Ambio* <<https://doi.org/10.1007/s13280-021-01561-7>> accessed 15 August 2021.

²² S.G.J.N. Senanayake, 'Indigenous Knowledge as a Key to Sustainable Development' (2006) *Journal of Agricultural Sciences*, 87, 90; Denyer (n 9).

²³ Raja Devasish Roy, 'Country Technical Note on Indigenous Peoples' Issues People's Republic of Bangladesh' November 2012, IFAD & AIPP <https://www.ifad.org/documents/38714170/40224860/bangladesh_ctn.pdf/ea8bae36-7450-447a-b0e9-4c010ba315bf> accessed 10 November 2021.

²⁴ Goutam Dewan, 'Conservation and Its Impact on the Rights of Indigenous Peoples' Movement for the Protection of Forest & Land Rights in CHT (MPFLR-CHT), <<https://www.un.org/development/desa/indigenouspeoples...ITS-IMPACT-IN-BANGLADESH.pdf>> accessed 18 August 2021.

²⁵ Imtiaz Ahmed Sajal, 'COUNTRY REPORT: BANGLADESH, Bangladesh Biological Diversity Act 2017: An Appraisal' (2018) *IUCNAEL EJournal*, 132-141, 140.

conservation policy.²⁶ However, while doing this research, we discovered a gap in the learning and sharing of IKPs to prevent biodiversity loss in South Asia and collaborative efforts among nations might play a key role in filling that gap.

This article is structured in five sections: (I) Introduction (II) The Forgotten Partner: The Role of IKPs in Bangladesh's Biodiversity Conservation (III) Discriminatory Legal Frameworks: IKPs in Biodiversity Conservation (IV) An Inclusive Approach towards IKPs for Future Biodiversity Conservation Policy (V) Suggestions and Conclusion. The following section provides an overview of indigenous peoples' contributions to biodiversity conservation in Bangladesh.

2. The Forgotten Partner: The Role of IKPs in Bangladesh's Biodiversity Conservation

Bangladesh has a diverse flora and fauna that help to keep the ecosystem in balance.²⁷ Its ecosystems are classified into four types: terrestrial, inland water, coastal, and marine.²⁸ The country's economy and people rely largely on all of these types of biological resources for their food and livelihood.²⁹ The degree of biodiversity degradation in any place depends on the people who use that area³⁰ while researchers have concluded that the natural ecosystem's conservation prospects improve when indigenous peoples live there.³¹ The biodiversity degradation and loss in Bangladesh has haplessly begun long ago.³² Over the years, deforestation, forest degradation³³, irrigation, monoculture³⁴, flood control developments, shifting land use, industrial pollution, and overexploitation of biological resources with the recent climate change³⁵ are all contributing to biodiversity degradation.³⁶

²⁶ Loraine Busetto, Wolfgang Wick and Christoph Gumbinger, 'How to use and assess qualitative research methods' (2020) 2(14) *Neurol Res Pract* <<https://www.researchgate.net/publication/341672281>> accessed 7 July 2021.

²⁷ Md. Redwanur Rahman, 'Causes of Biodiversity Depletion in Bangladesh and Their Consequences on Ecosystem Services' (2015) Vol.4, No. 5 *American Journal of Environmental Protection* 214.

²⁸ Department of Environment, 'National Biodiversity Strategy and Action Plan of Bangladesh 2016-2021 (NBSAP 2016-2021).

²⁹ *Ibid.*

³⁰ Claudia Sobrevila, 'The Role of Indigenous Peoples in Biodiversity Conservation: the Natural but Often Forgotten Partners' 2008 The World Bank.

³¹ *Ibid.*

³² Bangladesh: State of the Environment, 2001 <http://old.moef.gov.bd/html/state_of_env/pdf/bangladesh_biodiversity.pdf> accessed 15 August 2021.

³³ Thompson, I. D., M. R. Guariguata, K. Okabe, C. Bahamondez, R. Nasi, V. Heymell, and C. Sabogal 'An operational framework for defining and monitoring forest degradation' (2013) *Ecology and Society* 18 (2): 20.

³⁴ Mohammad Kamal Hossain, 'Bangladesh National Conservation Strategy, Biodiversity: Flora' <http://bforest.portal.gov.bd/sites/default/files/files....lora_NCS.pdf> accessed 25 January 2022.

³⁵ *Ibid.*

³⁶ Rahman (n 27).

Every indigenous group in Bangladesh, no matter how small³⁷, has its own culture, history, customs, and customary laws.³⁸ Around 80% of the indigenous people live in plain land districts, while the remaining 20% live in the Chittagong Hill Tracts (CHT)³⁹, which account for 1.8 percent of Bangladesh's total population.⁴⁰ Many of the indigenous peoples' territories are also home to the country's major biodiversity hotspots⁴¹ such as the Chittagong Hill Tracts (CHT), which supports almost 80 percent of Bangladesh's overall biodiversity.⁴² They have a spiritual link with the land and the natural environment⁴³ and have learnt to manage their ecosystems sustainably, and this knowledge is passed down through generations.⁴⁴

A fundamental part of the core tenets and beliefs of indigenous people is living in harmony with their surrounding nature.⁴⁵ Indigenous peoples of Bangladesh employ various conservation techniques to protect the soil, water, wildlife, medicinal plants, forest, and grassland.⁴⁶ Their knowledge and techniques are the most appropriate, cost-effective, and ecologically friendly, with no negative consequences.⁴⁷ They use selective harvesting, organic farming, crop rotation and intercropping, post-harvest operations⁴⁸, sacredness of sites, cultural belief and rituals⁴⁹ as well as traditional authority as primary tools for biodiversity conservation.⁵⁰ These knowledge and practices of indigenous people show a high

³⁷ G. M. Quader, 'Indigenous people of Bangladesh' *The Daily Star* (Dhaka, Jul 17, 2008), <<https://www.thedailystar.net/news-detail-46025>> accessed 18 August 2021.

³⁸ International Labour Organization, 'Building capacities on indigenous and tribal peoples' issues in Bangladesh' 2017.

³⁹ *Ibid.*

⁴⁰ Pallab Chakma and Bablu Chakma, 'The Indigenous World 2021: Bangladesh, 18 MARCH 2021. International Work Group for Indigenous Affairs, Bangladesh' <<https://www.iwgia.org/en/bangladesh/4201-iw-2021-bangladesh.html>> accessed 14 August 2021.

⁴¹ Sobrevila (n 30).

⁴² Hossain (n 34).

⁴³ Professor Dr. Mohammad Towhidul Islam and Moniruz Zaman, 'Protection of Traditional Knowledge: Finding an Appropriate Legal Framework for Bangladesh' (2020) *Dhaka University Law Journal* 29, 31

⁴⁴ Nusa Urbancic, 'How Granting Indigenous Peoples' Land Titles Contributes to Forest Conservation in Latin America' (2020) 7 *Birkbeck L Rev* 26, 31.

⁴⁵ Krystyna Swiderska, 'Protecting indigenous cultures is crucial for saving the world's biodiversity', International Institute for Environment and Development', International Institute for Environment and Development <<https://www.iied.org/protecting-indigenous...biodiversity>> accessed 14 August 2021.

⁴⁶ Dewan (n 24).

⁴⁷ Md Mostafizur Rahman, 'Practice of Indigenous Knowledge System by the Farmers in Maintaining Ecosystem in Bangladesh' (2012) Vol. 57, No. 3 *Journal of Agricultural Sciences* 155, 156.

⁴⁸ *Ibid.*

⁴⁹ Fernández-Llamazares, et al., 'Scientists' Warning to Humanity on Threats to Indigenous and Local Knowledge Systems' (2021) 41(2) *Journal of Ethnobiology* 144, 145.

⁵⁰ Dewan (n 24).

level of care for soil health, forestry and ecologically friendly agricultural production techniques.⁵¹

Indigenous people have long used and conserved biodiversity, which has been passed down through the generations⁵² as a cultural legacy.⁵³ They are well known for having lasted millennia in their respective locations by utilizing extensive biodiversity knowledge and practices⁵⁴, which has turned into a precious living repository of specific information on how to conserve earthly life.⁵⁵ This knowledge and practice pave the way for ecologically friendly approaches for resource use.⁵⁶ In the mountainous areas of Bangladesh, for example, Village Common Forests (VCF) are being used sustainably for water resource conservation, livelihoods and other requirements of indigenous communities.⁵⁷ Previous research have shown that this management technique not only aids in the conservation of hilly forests, but also in the restoration of degraded forest zones as well as the establishment of new homes for biodiversity in such areas.⁵⁸

BOX 1: Village Common Forest (VCF), Baghchari, Rangamati

A Village Common Forest (VCF) of roughly 80 acres exists in Baghchari (Danabindhu Karbari Para), Rangamati. The Chakma are the indigenous peoples who own and govern this forest. Theirs is a mixed evergreen forest with bamboo groves dominating. The Asiatic Black Bear, Hornbill, and Leopard are among the notable wildlife species that live there. A management committee, led by the karbari, or village chief, is in charge of the forest. The VCF is managed using a traditional resource management approach. The user community itself establishes the norms of VCF administration and penalizes those who breach them. VCF plays a critical role in forest resource conservation as well as meeting the needs of forest-dependent populations. It is also linked to indigenous people's religions, rituals, cultural beliefs, and rites.

Despite the fact that Bangladeshi indigenous communities have a wealth of knowledge and practices that are beneficial to maintaining biodiversity⁵⁹, these

⁵¹ Rahman (n 47) 162.

⁵² Hossain (n 34).

⁵³ Rodrigo Cámara-Leret, Miguel A. Fortuna and Jordi Bascompte, 'Indigenous knowledge networks in the face of global change' Proceedings of the National Academy of Sciences 2019 < 10.1073/pnas.1821843116> accessed 10 August 2021.

⁵⁴ Mauro, Francesco, and Preston D. Hardison, 'Traditional Knowledge of Indigenous and Local Communities: International Debate and Policy Initiatives.' (2000) 10, no 5 Ecological Applications 263 <doi:10.2307/2641281> accessed August 14, 2021.

⁵⁵ Fernández-Llamazares et al. (n 49).

⁵⁶ Rahman (n 47) 156.

⁵⁷ Kamrul Islam Kamrul, Jashimuddin Jashimuddin , and Nuralam Hossain, 'Tree Diversity and Management of Village Common Forests in Bandarban' (2017) Environ. Earth Ecol.;1(2):39–51.

⁵⁸ Ibid.

⁵⁹ Ibid.

valuable knowledge and practices⁶⁰ are being lost as a result of land encroachment, environmental degradation, discrimination, development projects as well as discriminatory laws and policies.⁶¹ Furthermore, it has been increasingly difficult for many indigenous people to retain their distinctive culture, knowledge and practices since new migrants are said to be threatening, endangering or occupying their sacred waterways, cremation sites and temple areas.⁶² Such disruptions not only jeopardize indigenous peoples' livelihoods and cultural integrity, but also lead to loss of biodiversity.⁶³

Since indigenous knowledge and practices are an important source of know-how for biodiversity⁶⁴, they are becoming more recognized across the world. The CBD, which is the first global agreement to encompass all elements of biological diversity, recognizes indigenous peoples' unique role in conserving biodiversity, sustainable use, as well as fair and equitable sharing of benefits resulting from the use of biodiversity.⁶⁵ The recognition and preservation of their knowledge are the best way forward to enhance harmony between nature and humans, ensuring sustainable use of biodiversity.

One of the more sustainable and cost-effective approaches to biodiversity conservation is to empower indigenous people to manage biodiversity in their own territories.⁶⁶ To secure the protracted sustenance of the inhabitants of Bangladesh's highlands and lowlands, experts recommended managing the fragile ecosystems, which hold vast quantities of biodiversity by synergistically applying science, policy, and indigenous knowledge.⁶⁷ Thence, recognition is pivotal, as any biodiversity conservation activity is likely to disregard the potential for collaboration if the knowledge and practices are unknown, unrecognized and unpreserved.⁶⁸ Despite the fact that the nexus of biodiversity-rich areas with indigenous knowledge and practices has enormous potential to improve biodiversity conservation⁶⁹, it is nevertheless underestimated and usually overlooked in Bangladesh's biodiversity conservation efforts. What's needed is a better understanding of indigenous knowledge and laws as well as policy for integrating it into biodiversity conservation initiatives⁷⁰, both of which

⁶⁰ Cámara-Leret (n 53).

⁶¹ Quader (n 37).

⁶² Minority Rights Group International, 'State of the World's Minorities and Indigenous Peoples 2016 – Bangladesh', 2016 <<https://www.refworld.org/docid/57960848c.html>> accessed 19 August 2021.

⁶³ Fernández-Llamazares et al. (n 49).

⁶⁴ Local Biodiversity Outlooks 2 (n 3).

⁶⁵ The Convention on Biological Diversity, art 8j.

⁶⁶ Sobrevila (n 30).

⁶⁷ 'Science, indigenous knowledge both needed', *The Daily Star* (Dhaka, 12 Dec 2014) <<https://www.thedailystar.net/science-indigenous-knowledge...54987>> accessed 14 August 2021.

⁶⁸ Sheil, Douglas et al., 'Recognizing local people's priorities for tropical forest biodiversity' (2006) 35 (1) *Ambio* 17, 17.

⁶⁹ Sobrevila (n 30).

⁷⁰ Douglas et al. (n 68).

are currently lacking in Bangladesh. To that end, the next part will go through the existing legislative frameworks for biodiversity conservation in Bangladesh, as well as the position of indigenous people within these frameworks.

3. Discriminatory Legal Frameworks: IKPs in Biodiversity Conservation

Biodiversity loss is closely linked to cultural diversity loss.⁷¹ The loss of indigenous knowledge and practice may result in the disintegration of biodiversity management systems⁷² that have formed and sustained ecosystems.⁷³ Failure to recognize and protect such knowledge and practice has disastrous implications.⁷⁴ Moreover, when indigenous people's knowledge and practices are not recognized or are only partially recognized, biodiversity is at risk of being degraded and eventually lost.⁷⁵ Discriminatory laws that fail to safeguard IP's knowledge and practices, as well as their resource rights, hasten the loss of biodiversity. In order to effectively incorporate biodiversity conservation concerns into policies, the legislations should prioritize all key stakeholders and their interests.⁷⁶ Unfortunately, Bangladesh's legislative framework for biodiversity conservation contains legal measures pertaining to a number of stakeholders, such as local communities⁷⁷, but indigenous people are totally left out.

There has never been any universally adopted one definition⁷⁸ of indigenous people.⁷⁹ Bangladesh has approximately 59 different groups of indigenous people.⁸⁰ The government of Bangladesh (GoB) officially rejects the presence of

⁷¹ Fernández-Llamazares et al. (n 49) 144.

⁷² Samantha Muller, Steve Hemming and Daryle Rigney, 'Indigenous sovereignties: relational ontologies and environmental management' (2019) Volume 57, Issue 4, *Geographical Research* <https://doi.org/10.1111/1745-5871.12362>.

⁷³ Fernández-Llamazares et al. (n 49).

⁷⁴ Nicole Latulippe and Nicole Klenk, 'Making room and moving over: knowledge co-production, Indigenous knowledge sovereignty and the politics of global environmental change decision-making' (2020) Volume 42, *Current Opinion in Environmental Sustainability*, 7-14.

⁷⁵ Caleb Stevens, Robert Winterbottom, Jenny Springer and Katie Reyter, 'Securing Rights, Combating Climate Change How Strengthening Community Forest Rights Mitigates Climate Change' World Resources Institute.

⁷⁶ Cornelia B. Krug et al., 'Stakeholder participation in IPBES: connecting local environmental work with global decision making' (2020) 16:1 *Ecosystems and People* 197-211.

⁷⁷ The Bangladesh Biodiversity Act 2017, s 10(h), 24(b).

⁷⁸ UN Permanent Forum on Indigenous Issues, 'Who are indigenous peoples? Factsheet' <https://www.un.org/esa/socdev/unpfii/documents/5session_factsheet1.pdf> accessed 10 November 2021.

⁷⁹ Weaver Hilary N, 'Indigenous Identity: What Is It, and Who Really Has It?' (2001) vol. 25(2) *American Indian Quarterly* 240-55 <<http://www.jstor.org/stable/1185952>> accessed 10 November 2021.

⁸⁰ Roy (n 23).

indigenous people within its own boundaries⁸¹, putting them at a disadvantage⁸². The GoB's legal and regulatory papers, as well as official communication, employ various terminology to address them, such as tribal people⁸³, upajati⁸⁴, indigenous⁸⁵, adibasis⁸⁶, ethnic minority⁸⁷, indigenous Hillman⁸⁸ and hillpeople/hillmen⁸⁹. Prior literatures revealed that states avoid using the term 'indigenous people' because it is associated with the right to independent statehood.⁹⁰ Instead, they refer to them as tribes⁹¹ or communities in order to bring them under the control and jurisdiction of the state.⁹² The indigenous peoples of Bangladesh, according to researchers, satisfy all the requirements for being recognized and receiving legal protection.⁹³

Indigenous Peoples' rights are generally enshrined in more general international and regional treaties and treaties, rather than in distinct treaties.⁹⁴ Bangladesh has ratified all of the major human rights conventions⁹⁵, and indigenous peoples' rights are protected in a broader sense under those legal instruments. However, Bangladesh refrained from ratifying any international treaties aimed explicitly at

⁸¹ The Unrepresented Nations and Peoples Organization (UNPO), 'Chittagong Hill Tracts: There are no indigenous people in Bangladesh' (2011) <<https://unpo.org/article/12784>> accessed 9 November 2021.

⁸² Afrose Jahan Chaity, 'Indigenous peoples continue being marginalised: Kapaeeng report' *Dhaka Tribune* (Dhaka, February 27, 2017) <<https://www.dhakatribune.com/bangladesh/law-rights/2017/02/27/indigenous-people-continue-marginalised-kapaeeng-report>> accessed 10 November 2021; ILO, 'Building capacities on indigenous and tribal peoples' issues in Bangladesh' 2017 <https://www.ilo.org/wcmsp5/groups...ilo-dhaka/documents/publication/wcms_563690.pdf> accessed 10 November 2021.

⁸³ Arif Ahmed, 'Rights of indigenous peoples in Bangladesh, *The Daily Star*, (Dhaka, August 9, 2016) <<https://www.thedailystar.net/law-our-rights/rights-indigen...1266478>> accessed 10 November 2021.

⁸⁴ Roy (n 23).

⁸⁵ Finance Act, 1995, Chittagong Hill Tracts Regulation, 1900.

⁸⁶ Mohammad Abdul Hannan, 'Human Rights of the Aborigines in the Context of Bangladesh' (2009) <http://dx.doi.org/10.2139/ssrn.1940205> accessed 10 November 2021.

⁸⁷ Roy (n 23).

⁸⁸ *Sampriti Chakma v. Commissioner of Customs & Others* [2000] 5 BLC, AD, 29.

⁸⁹ Roy (n 23).

⁹⁰ M Suchitra, 'Most countries don't want to recognise indigenous people as people' (*Down To Earth* 1 November 2012) <<https://www.downtoearth.org.in...indigenous-people-as-people-39492>> accessed 1 January 2022; 'STUDY GUIDE: The Rights of Indigenous Peoples' (*University of Minnesota Human Rights Library*) <<http://hrlibrary.umn.edu/edumat...html>> accessed 31 December 2021

⁹¹ 'STUDY GUIDE: The Rights of Indigenous Peoples' (*University of Minnesota Human Rights Library*) <<http://hrlibrary.umn.edu/edumat/studyguides/indigenous.html>> accessed 31 December 2021.

⁹² M Suchitra, 'Most countries don't want to recognise indigenous people as people' (*Down To Earth* 1 November 2012) <<https://www.downtoearth.org.in/interviews/most-countries-dont-want-to-recognise-indigenous-people-as-people-39492>> accessed 1 January 2022.

⁹³ Kawser Ahmed, 'Defining 'Indigenous' in Bangladesh: International Law in Domestic Context' (2010) 17 *International Journal on Minority and Group Rights* 47-73.

⁹⁴ University of Minnesota Human Rights Library (n 91).

⁹⁵ Ratification of International Human Rights Treaties – Bangladesh, <https://tbinternet.ohchr.org/_layouts/15...?CountryID=14&Lang=EN> accessed 31 December 2021.

protecting indigenous peoples' rights, such as the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP)⁹⁶ which was hailed as a major step forward in the global acknowledgement of indigenous peoples' rights.⁹⁷ The UNDRIP recognizes indigenous peoples' rights to self-determination⁹⁸ as well as the right to 'maintain and strengthen their distinct political, legal, economic, social, and cultural institutions, while also retaining their right to fully participate in the political, social, economic, and cultural life of the state if they so choose'⁹⁹. One of the reasons offered by Bangladesh before the UN was that the word 'indigenous peoples' in the Declaration was not properly defined or identifiable.¹⁰⁰ Despite having ratified International Labour Organization (ILO)'s Convention 107¹⁰¹, Bangladesh has not signed the ILO's most recent convention¹⁰² on indigenous and tribal peoples' labor standards.¹⁰³ Nonetheless, policies do not reflect the commitments made under ILO Convention 107.¹⁰⁴

Considering that, indigenous peoples' contributions are critical in developing and implementing ecological solutions, several nations have already made significant modifications to their conservation models and related laws¹⁰⁵ to acknowledge and protect the rights of indigenous people.¹⁰⁶ The government of Bangladesh has showed no interest in recognizing indigenous people¹⁰⁷ or their contribution in biodiversity conservation. The GoB on the other hand, could support the contributions of indigenous people in biodiversity conservation by

⁹⁶ Ahmed (n 93).

⁹⁷ Stavenhagen Rodolfo, 'Indigenous Peoples as New Citizens of the World' (2009) *Latin American and Caribbean Ethnic Studies* 4: 1 - 15.

⁹⁸ The United Nations Declaration on the Rights of Indigenous Peoples 2007, art 3.

⁹⁹ *Ibid*, art 5.

¹⁰⁰ Ahmed (n 93).

¹⁰¹ Indigenous and Tribal Populations Convention, 1957.

¹⁰² Indigenous and Tribal People's Convention, 1989.

¹⁰³ International Labour Organization, 'Up-to-date Conventions and Protocols not ratified by Bangladesh' <https://www.ilo.org/dyn/normlex/en/f?p=1000:11210:0::NO:11210:P11210_COUNTRY_ID:103500> accessed 10 November 2021.

¹⁰⁴ 'Inclusion of Indigenous Peoples in Sustainable Development and Realisation of Rights' *The Daily Star* (Dhaka, 22 September 2021) <<https://www.thedailystar.net/round-tables/news/inclusion-indigenous-peoples-sustainable-development-and-realisation-rights-2181031>> accessed 11 January 2022.

¹⁰⁵ Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 enacted by the Government of India to acknowledge as well as confer forest and land occupancy rights in forest dwelling Tribes and forest dwellers who lived in those forests for generations but whose rights remained undocumented.

¹⁰⁶ Vicky Tauli-Corpuz et al., 'Cornered by PAs: Adopting rights-based approaches to enable cost-effective conservation and climate action' (2020) Volume 130 *World Development*, <<https://doi.org/10.1016/j.worlddev.2020.104923>> accessed 20 August 2021.

¹⁰⁷ Binota Moy Dhamai, 'An Overview of Indigenous Peoples in Bangladesh' Prof. Mong Shanoo Chowdhury (ed), *Survival under Threat Human Rights Situation of Indigenous Peoples in Bangladesh*, Asia Indigenous Peoples Pact (AIPP) Kapaeeng Foundation & European Union's European Instrument for Democracy and Human Rights (EIDHR) (2014).

taking a number of steps in align with international developments, such as recognizing their knowledge and resource rights.¹⁰⁸ However, in order to accomplish so, indigenous people's positive contributions need to be aided first and foremost by nationally recognizing indigenous people's existence, followed by recognizing their knowledge and practice, securing access and resource rights, prior and informed consent, and improving collaboration, and finally ensuring fair and equitable benefits sharing.¹⁰⁹ The following section delves more into the content of the key biodiversity conservation laws, examining how far these laws have ventured to incorporate indigenous people, their knowledge, and practices into biodiversity conservation initiatives prior to 2020, as well as their prospects beyond 2020.

3.1. IKPs in Bangladesh's Biodiversity Conservation: Prior to Post-2020 Global Biodiversity Framework

As an independent sovereign nation, Bangladesh's path to protect and conserve the environment and biodiversity through legislative measures began in 1995. For the purpose of environmental protection, it inherited laws enacted by British-India such as the Forest Act 1927. Over the years, it has also passed numerous pieces of legislation, such as the Environment Conservation Act 1995, the Playground, Open Space, Park and Natural Wetland Conservation Act 2000, Environment Court Act 2010, the Wildlife (Conservation and Security) Act 2012 and the Brick Manufacturing and Brick Kilns Establishment (Control) Act 2013. All of these pieces of legislation weren't very specific, but they all indirectly addressed issues of biodiversity conservation and biosafety. Furthermore, none of these laws specifically mentions indigenous people, their knowledge, or practices, nor do they acknowledge IP's role and contribution in protecting the natural environment and conserving biodiversity. The significance and relevance of indigenous people, as well as the contribution of their knowledge and practices to biodiversity conservation, were all overlooked in these legislations. Moreover, indigenous knowledge and practices pertaining to biodiversity conservation have not been formally documented up to this moment.

Bangladesh has been a party to the Convention on Biological Diversity (CBD) since 1994, has ratified the Cartagena Protocol, and is a signatory to the Nagoya Protocol. In 2011, the Constitution of Bangladesh was amended to include provisions on environmental and natural resource management, stating that, 'the state must endeavour to protect and improve the environment and to preserve

¹⁰⁸ Kyle A. Artelle et al., 'Supporting resurgent Indigenous-led governance: A nascent mechanism for just and effective conservation', (2019) Volume 240 *Biological Conservation* <<https://www.science-direct.com/science...803?via%3Dihub>> accessed 20 August 2021.

¹⁰⁹ The United Nations, 'UN Report: Nature's Dangerous Decline 'Unprecedented'; Species Extinction Rates 'Accelerating'' (2019) <<https://www.un.org/sustainabledevelopment/blog/2019/05/nature-decline-unprecedented-report/>> accessed 21 August 2021.

and safeguard natural resources, biodiversity, wetlands, forests, and wild life for the present and future citizens'.¹¹⁰ In order to fulfill its constitutional responsibilities under Article 18A of the constitution and international obligations under CBD, Bangladesh has enacted the Bangladesh Biodiversity Act (hereinafter the Biodiversity Act) in 2017. This article will focus on the Biodiversity Act of 2017 to examine how supportive its provisions were in recognizing and integrating IKPs in order to reach the biodiversity targets before 2020, and how effective it will be in persuading both national and international commitments beyond 2020.

3.1.1. Inclusion of Explicit Recognition of Indigenous Peoples' Knowledge and Practices

Explicit recognition of indigenous knowledge and practices in national legislation has considerable impacts for biodiversity conservation policy, governance as well as decision-making.¹¹¹ Supporting IP's collective efforts and protecting their land and resource entitlements could be an effective method to ensuring the existence of life on Earth.¹¹² In Bangladesh, however, the Biodiversity Act prioritizes the contribution of the knowledge of local communities, excluding indigenous knowledge, to biodiversity conservation. Under the Act, one of the tasks of National Committee on Biodiversity (NCB) is to advise the government on how to respect, acknowledge, and conserve local communities' biodiversity related traditional knowledge.¹¹³ The only available definition of 'Traditional Knowledge' (TK) can be found in the Plant Varieties Protection Act of 2019, which is:

All types of knowledge, intellects and intellectual practices and cultures relating to biological diversity and biological resources which are practiced in the form of written, oral, folk and story and which may be logical, real or metaphorical, symbolic or graphical and which is not the result of the invention or effort of a single person.¹¹⁴

The Act guarantees the farmer and farmers' associations' right to recognition in conserving traditional knowledge of plant genetic resources utilized in food, agriculture, and medicine. The definition of TK includes 'all types of knowledge', it can be interpreted that indigenous farmers' knowledge is also protected by the

¹¹⁰ The Constitution of the People's Republic of Bangladesh, art 18A.

¹¹¹ Artelle et al. (n 108).

¹¹² The Forest Peoples Programme, 'The central roles of Technical policy brief for the HPLF on Sustainable Development Goal 15 Indigenous Peoples and Local Communities in achieving global commitments on biodiversity', (2018) IPMG.

¹¹³ The Bangladesh Biodiversity Act 2017, s 10(h).

¹¹⁴ The Plant Varieties Protection Act 2019, s 23 Explanation. <https://www.dpp.gov.bd/bgpress/bangla/index.php/home/download_file/gazettes/40070_69777.pdf> accessed 19 January 2022.

act.¹¹⁵ On the other hand, the Biodiversity Act of 2017 does not define the term 'Traditional Knowledge', thus it remained disputed if IKPs would fall under its purview.

The absence of constitutional recognition of indigenous people in Bangladesh is at the base of the problem.¹¹⁶ Indigenous people have been denied constitutional recognition as 'indigenous' from the adoption of the country's first constitution of 1972 and this continues until now.¹¹⁷ However, the 15th amendment to the Constitution in 2011, which made no mention of 'Indigenous' instead, adopted the terms tribes, minor races, ethnic sects, and communities.¹¹⁸ Consequently, the question arises as to whether the word 'local communities' in the Biodiversity Act may also include indigenous people or not. The question remained unresolved since the statute does not define what constitutes a local community. The legislative intent underlying this topic has remained unclear because no other interpretation of the Act has been identified. Both 'indigenous' and 'local' imply some degree of geographical distinction. Indigenous people, as the inheritors and bearers of diverse traditions and a means of connecting people and nature, preserve distinct cultural, economic, social, as well as political features that distinguish them from the dominant communities they live in.¹¹⁹ 'Indigenous and local communities' are therefore to be read in disjunction with reference to both indigenous people and local communities.¹²⁰ The contribution of knowledge and practices of indigenous people in biodiversity conservation must be recognized separately. The rationale is that indigenous people's knowledge, practices, as well as innovations could be a useful tool for monitoring environmental changes of the locality and determining effective management strategies.¹²¹ In 1998, Bangladesh took a step toward acknowledging indigenous knowledge and practices in biodiversity conservation by enacting legislation. However, the draft copy of the Biodiversity and Community Knowledge

¹¹⁵ It has been made clear in the "Explanation" part of section 23 of the Plant Varieties Protection Act 2019 that the definition of "Traditional Knowledge" is exclusively applicable to the purposes of section 23 only.

¹¹⁶ Prashanta Tripura, 'Indigenous Peoples under the Legal and Policy Frameworks of Bangladesh' Prof. Mong Shanoo Chowdhury (ed), *Survival under Threat Human Rights Situation of Indigenous Peoples in Bangladesh*, Asia Indigenous Peoples Pact (AIPP) Kapaeeng Foundation & European Union's European Instrument for Democracy and Human Rights (EIDHR) (2014).

¹¹⁷ *Ibid.*

¹¹⁸ The Constitution of the People's Republic of Bangladesh, art 23A.

¹¹⁹ United Nations, 'Indigenous Peoples at the United Nations' Department of Economic and Social Affairs. Indigenous Peoples <<https://www.un.org/development/desa/indigenouspeoples/about-us.html>> accessed 3 November 2021.

¹²⁰ Samuel Lim, 'An Equitable Approach to Traditional Knowledge Protection' (2020) 53 NYU J Int'l L & Pol 135, 160.

¹²¹ 'Indigenous Knowledge Definitions, Concepts and Applications' (*The World Bank* 1998) <[https://chm.cbd.int/api/v2013/documents/_Report%20\(1\).pdf](https://chm.cbd.int/api/v2013/documents/_Report%20(1).pdf)> accessed 11 January 2022.

Protection Act 1998, which was much more nature-friendly according to researchers, did not see the light of day.¹²²

CBD acknowledges both the indigenous peoples' and local communities' reliance on biological biodiversity, as well as their unique contribution in the conservation of life on this planet.¹²³ This acknowledgment is incorporated in the Convention's preamble and in the provisions of Article 8(j) of the Convention. Bangladesh is committed as a CBD state party to respect, preserve, and maintain both the indigenous peoples and local communities' knowledge, inventions, and practices that are vital to biological diversity conservation in accordance with its national legislation. The Biodiversity Act, as the country's main biodiversity law, failed to ensure a genuine recognition of indigenous knowledge and practices in its provisions to respect, protect, and maintain such knowledge and traditions, and hence did not meet the obligations imposed by CBD.¹²⁴

3.1.2. Integration into Policies and Programs

Several international legal instruments have emphasized the importance of integrating indigenous knowledge and practices into biodiversity conservation initiatives aimed at identifying significant biological zones for conservation and collaborative environmental protection solutions.¹²⁵ Enabling co-design, policy implementation, and collaborations with IPs can ameliorate biodiversity protection.¹²⁶ Research shows that indigenous conservation methods are nearly twice more efficient than any other method of conserving and protecting biodiversity.¹²⁷ As a result, if biodiversity conservation initiatives are to be effectively implemented, IKPs must be integrated into biodiversity conservation policy and programs, followed by full as well as effective engagement of IP in all levels of policy identification and implementation.¹²⁸

The objectives of the Biodiversity Act¹²⁹ mirror the same three objectives of CBD: 'to provide for conservation of biological diversity, sustainable use of its

¹²² Staff correspondence, 'Conserve nature utilising indigenous knowledge' *The Daily Star* (Dhaka, 15 March 2008) <<https://www.thedailystar.net/news-detail-27806>> accessed 11 January 2022.

¹²³ Convention on Biological Diversity, 'Working Group on Article 8(j)', <<https://www.cbd.int/convention/wg8j.shtml>> accessed 01 November 2021.

¹²⁴ Intiaz Ahmed Sajal, 'How far the Biological Diversity Act 2017 complies with international obligations?' *The Daily Star*, (Dhaka, November 19, 2019) <<https://www.thedailystar.net/law-our-rights/news/how-far-the-biological-diversity...obligations-1829140>> accessed 6 August 2021.

¹²⁵ Fajardo et al. (n 5).

¹²⁶ Richard Schuster et al., 'Vertebrate biodiversity on indigenous-managed lands in Australia, Brazil, and Canada equals that in protected areas' (2019) Volume 101 *Environmental Science & Policy* 1 <<https://www.sciencedirect.com/science/article/pii/S1462901119301042>> accessed 20 August 2021.

¹²⁷ Urbancic (n 44) 39.

¹²⁸ Guillen Calvo Valderrama and Salvatore Arico, 'Traditional knowledge: From environmental management to territorial development' (2010) United Nations University Press 211.

¹²⁹ The Bangladesh Biodiversity Act 2017, Preamble.

components and fair and equitable sharing of the benefits arising out of the use of biological resources and knowledge'.¹³⁰ The Biodiversity Act provides for the establishment of National Committee on Biodiversity (NCB)¹³¹, Technical Committee on Biodiversity¹³² and 'Biodiversity Management and Surveillance Committee' in country's all City Corporations¹³³, Districts¹³⁴, Upazilas¹³⁵, Municipalities¹³⁶, Unions¹³⁷ to achieve the Act's objectives. The compositions of these committees have included representatives from the government, academic community, NGOs, social workers, local farmers and fishermen excluding indigenous community. Without the contribution of actual life experience and knowledge from indigenous people, such committees would never have the profound insight, experience, and skill to appropriately produce a set of policy proposals. Greater contributions from indigenous communities are plausible, if they perceive they have 'ownership' of the biodiversity conservation policies by contributing their knowledge, experience as well as opinions to policy formulation and implementation.¹³⁸ Unless the power is shared, participation is simply not feasible.¹³⁹

Bangladesh has developed a number of National Biodiversity Strategy and Action Plan (NBSAPs) which is the key instruments of national implementation of the CBD,¹⁴⁰ to compliance with Article 6 of the convention. The most recent one was adopted for the period 2016-2021. According to the NBSAP (2016-2021), community-based and participatory approach to biodiversity protection were adopted engaging a variety of stakeholders, however, indigenous people were not addressed. The term 'indigenous' is also not employed in the NBSAP. One of the key biodiversity targets outlined in the NBSAP (2016-2021) is the documentation and recognition of traditional knowledge, practices as well as innovations of local communities or ethnic groups.¹⁴¹ Again, no clarity was given as to what this NBSAP target will entail or whether it will mean and include

¹³⁰ Convention on Biological Diversity, art 1.

¹³¹ The Bangladesh Biodiversity Act 2017, s 8.

¹³² *Ibid*, s 11.

¹³³ *Ibid*, s 13.

¹³⁴ *Ibid*, s 16.

¹³⁵ *Ibid*, s 19.

¹³⁶ *Ibid*, s 22.

¹³⁷ *Ibid*, s 25.

¹³⁸ The Convention on Biological Diversity, 'Ensuring Inclusive Societal Engagement in the Development, Implementation and Updating of NBSAPs' Module 5 (B Series), Version 2 – Revised July 2012 6, accessed 2 August 2021.

¹³⁹ Divya Kalathingal, 'Conservation - A Contested Story: The State and the Kadar Adivasis, India' (2020) 16 *Law Env't & Dev J* 20, 32.

¹⁴⁰ Sonia Peña Moreno Maximilian Mueller, 'Societal participatory processes in the revision of National Biodiversity Strategies and Action Plans (NBSAPs)' 2015, INTERNATIONAL UNION FOR CONSERVATION OF NATURE.

¹⁴¹ Department of Environment, 'National Biodiversity Strategy and Action Plan of Bangladesh 2016-2021', Target 18, xv.

indigenous knowledge as well.¹⁴² Documentation of indigenous and traditional knowledge on biodiversity was also included in the 7th Five-Year Plan (FY 2016-FY June 2020) under the heading 'Mainstreaming National Biodiversity Strategy and Action Plan (NBSAP) Programme'.¹⁴³ However, both the NBSAP target and the actions taken under the 7th five-year plan have yet to be met. Intriguingly, the word indigenous knowledge was mentioned in the 7th Five Year Plan in 2016¹⁴⁴, but it was not included in the NBSAP (2016-2021) or the Biodiversity Act that was enacted the following year. Under the Biodiversity Act, municipalities¹⁴⁵ and unions committees¹⁴⁶ are responsible for documenting biodiversity-related knowledge. Both of these committees are devoid of indigenous community representatives. These exclusions reveal a failure to include IKPs into biodiversity conservation initiatives that directly affect them. The pivotal factor is that until and unless indigenous people are constitutionally recognized, the state cannot be held accountable for enacting legislation and policies that fail to meet their concerns.

3.1.3. Benefits-Sharing Mechanism: The Exclusionary Approach

The rising recognition of IPs rights, ownership, and responsibilities underscores the fact that conservation will be difficult to achieve without their free, prior, and informed consent.¹⁴⁷ Both the CBD¹⁴⁸ and the Nagoya protocol¹⁴⁹ reaffirm the equitable distribution of benefits arising out of the use and application of the knowledge, innovations and practices of IPs. One of the major impacts of CBD is the criterion of prior informed consent (PIC) as well as the fair distribution of benefits based on mutually agreed terms (MAT).¹⁵⁰ It has also emerged as a major element in Bangladesh governments' legislative initiatives to introduce an access and benefit sharing (ABS) mechanism.¹⁵¹

Bangladesh signed the Nagoya Protocol (NP) in 2011, years before establishing a national ABS mechanism under the Biodiversity Act of 2017. Bangladesh has not yet ratified the Nagoya Protocol, implying that it has simply disregarded the minimum requirement of international ABS mechanism regarding indigenous

¹⁴² Ibid.

¹⁴³ General Economic Division, Planning Commission, Government of the People's Republic of Bangladesh, 'Seventh Five Year Plan (FY 2016-FY June 2020)', Issue 14: Mainstreaming National Biodiversity Strategy and Action Plan (NBSAP) Programme 443.

¹⁴⁴ Ibid.

¹⁴⁵ The Bangladesh Biodiversity Act 2017, s 24(2) (d).

¹⁴⁶ Ibid, s 27(2) (d).

¹⁴⁷ Artelle et al. (n 108).

¹⁴⁸ The Convention on Biological Diversity, art 1, 8(j), 10, and 15(7).

¹⁴⁹ The Nagoya Protocol on Access and Benefit-sharing, art 7, 12, 16.

¹⁵⁰ Johanna Gibson, 'Traditional Knowledge and the International Context for Protection' (2004) 1 SCRIPTed 58, 71.

¹⁵¹ The Bangladesh Biodiversity Act 2017, s 30.

people. However, the ratification of the CBD means that all non-Parties to the NP, including Bangladesh, are bound by the CBD's more generic standards for ABS under Art. 1, 8, and 15 to ensure that biodiversity is used sustainably.¹⁵² Unfortunately, Bangladesh's incorporation of the CBD into national legislation in the shape of the Bangladesh Biodiversity Act 2017 constitutes a squandered opportunity in terms of the CBD's position on the ABS mechanism and recognition as well as preservation of IKPs on biodiversity.¹⁵³

Rather than developing genuine PIC and MAT regulations for all interested stakeholders, the Biodiversity Act concentrated on the 'bare minimum'.¹⁵⁴ Section 30 of the Biodiversity Act outlined six methods for determining fair and equitable benefit sharing arising out of the use of accessible biological resources, by-products, inventions, as well as knowledge, subject to PIC and MAT requirement between the person requesting such authorization, local entities involved, and benefit claimants. In addition, it states that, NCB is empowered to determine the distribution of fair and equitable share of benefit derived from genetic or biological resources by following various criterion such as a) conferring intellectual property right ownership or joint-ownership b) transference of technologies to benefit recipients c) ensuring that the subject of production, research, or projects contributes to the improvement of benefit recipients' living, d) engaging scientists of Bangladesh, their organizations and local communities in research as well as development, e) provision of financial compensation and non-monetary perks for the claimants.¹⁵⁵ However, there is no reference of 'indigenous people' or 'indigenous knowledge' in any of them. According to the ABS regime, as specified in the Biodiversity Act of 2017, indigenous peoples' rights, in particular, remained unresolved.

Bangladesh neglected a chance to develop a comprehensive ABS system governing access to indigenous knowledge and fair profit sharing resulting from the use of such knowledge. What the Biodiversity Act presently provides is not in favor of the knowledge and practices of indigenous people. When compared to the Nagoya Protocol and Bonn Guidelines¹⁵⁶, Bangladesh's ABS mechanism falls short of ensuring effective, appropriate, and proportionate legal and administrative measures for indigenous communities regarding essential concepts of PIC and MAT requirements, ethical guidelines, user provider criteria, and their agency and participation in decision-making.

¹⁵² Heinrich M et al, 'Access and Benefit Sharing Under the Nagoya Protocol—Quo Vadis? Six Latin American Case Studies Assessing Opportunities and Risk' (2020) *Front. Pharmacol.* 11:765.

¹⁵³ Gibson (n 150).

¹⁵⁴ 'Independent Review of EPBC Act, Interim Report, Chapter 7 - Monitoring, evaluation and reporting', (2020) <<https://epbcactreview.environment.gov.au...uation-and-reporting>> accessed 21 August 2021.

¹⁵⁵ Sajal (n 124).

¹⁵⁶ Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising from their Utilization 2002.

3.2. IKPs in Bangladesh's Biodiversity Conservation: Post-2020 Global Biodiversity Framework and Beyond

The CBD has formulated the first draft of the post-2020 global biodiversity framework, which includes 21 action-oriented targets for urgent action with some of the targets specifically addressing IPs concerns.¹⁵⁷ The framework aims to bring governments and all sectors of society, including IPs, together to take urgent and transformative action to halt biodiversity loss by 2030. Such transformational action necessitates the prioritization of IP's rights as well as agency in biodiversity laws and policy.¹⁵⁸ Recognizing and implementing IP's understandings of nature into biodiversity policy formulation and implementation are critical for attaining the CBD's 2050 objective as well as the Bangladesh's national plan beyond 2020.¹⁵⁹

Indigenous-led governance¹⁶⁰ could be a significant strategy for accomplishing effective conservation as well as to achieve national biodiversity targets.¹⁶¹ Conservation measures would be difficult to implement¹⁶² if indigenous peoples' rights, active engagement, and leadership were not taken into account.¹⁶³ The extent of indigenous territories in Bangladesh has the potential to deliver a wide range of conservation benefits from indigenous-led governance that is not hampered by anything and is supported by GoB.¹⁶⁴ Bangladesh's current biodiversity policy not only disregarded the input and expertise of the indigenous people but also failed to provide adequate provision to ensure their rights, involvement and leadership that a biodiversity policy should provide.¹⁶⁵ In addition to failing to meet the Aichi objectives¹⁶⁶, Bangladesh's NBSAP 2016-2021 failed to make substantial progress in meeting national targets for biodiversity conservation.¹⁶⁷ Local Biodiversity Outlooks 2 (LBO-2) report represents the optimism to reverse the devastation of nature, the significant loss of biodiversity and cultural variety by embracing principles and supporting the

¹⁵⁷ Convention on Biological Diversity, 'The First Draft of the Post-2020 Global Biodiversity Framework' (2021), Target 9, 13, 20 and 21, <<https://www.cbd.int/doc/c/abb5...03-en.pdf>> accessed 12 July 2021.

¹⁵⁸ Garcia et al. (n 21).

¹⁵⁹ Ibid.

¹⁶⁰ Artelle et al. (n 108).

¹⁶¹ Schuster (n 126).

¹⁶² Md Mizanur Rahman, 'Assessing the Progress and Pitfalls of the Ministry of Environment, Forest, and Climate Change in Achieving SDGs in Bangladesh' (2021) *Journal of Public Administration (BJPA)*, 29 (2) :140-158, <<https://doi.org/10.36609/bjpa.v29i2.228>> accessed 29 October 2021.

¹⁶³ Artelle et al. (n 108).

¹⁶⁴ Ibid.

¹⁶⁵ Karrigan Bork, 'Governing Nature: Bambi Law in a Wall-E World' (2021) 62 *BC L Rev* 155, 159.

¹⁶⁶ Haseeb Md. Irfanullah, 'Let's not get confused over nature-based solutions' *The Daily Star*, (Dhaka, April 23, 2021) <<https://www.thedailystar.net/opinion/news/lets-not-get-confused-over-nature-based-solutions-2082037>> accessed 29 October 2021.

¹⁶⁷ Rahman (n 162).

collective action of the indigenous peoples of the world.¹⁶⁸ Thus, any future biodiversity strategy of Bangladesh would ultimately fail and lead to loss of biodiversity if it continues to disregard the knowledge and practices, collective actions of indigenous people as well as their agency in biodiversity policy. The next part of this article, based on the preceding evaluation, discusses the necessity for an inclusive approach to IKPs in Bangladesh's future biodiversity strategies.

4. An Inclusive Approach towards IKPs for Future Biodiversity Conservation Policy

The outcomes are considerably better when indigenous peoples have a genuine say in the design and implementation of biodiversity laws and policies that affect them.¹⁶⁹ To achieve this, a lack of recognition as 'Indigenous People' under the country's supreme law adds to the hurdles. The importance of constitutional recognition stems from the fact that the constitution is the only place where binding as well as enduring protections can be established.¹⁷⁰ Several countries have taken measures to recognize indigenous peoples in their constitutions, notably the United States, New Zealand and Canada.¹⁷¹ In Bangladesh, indigenous people have been recognized outside of the constitution by signing a treaty named Chittagong Hill Tracts Peace Accord (hereafter Peace Treaty)¹⁷² with them and referring to them as tribal, rather than indigenous people. The Peace Treaty provided for demilitarization, land restitution, and devolution of powers to regional self-government.¹⁷³ It acknowledges the need of safeguarding

¹⁶⁸ Local Biodiversity Outlooks 2 (n 3).

¹⁶⁹ Interim Report 2.1 - Indigenous knowledge and views are not fully valued in decision-making, June 2020 <<https://epbcactreview.environment.gov.au/resources/interim-report/chapter-2-indigenous-culture-and-heritage/21-indigenous-knowledge-and-views-are-not-fully-valued-decision-making>> accessed 20th August 2021; New biodiversity targets cannot afford to fail, 2020 Vol 578 The international journal of science 337 <<https://media.nature.com/original/magazine-assets/d41586-020-00450-5/d41586-020-00450-5.pdf>> accessed 20 August 2021.

¹⁷⁰ 'Discussion Paper on Constitutional Recognition of Aboriginal and Torres Strait Islander Peoples', (Referendum Council, October 2016) <https://www.referendumcouncil.org.au/sites/default/files/2016-12/referendum_council_discussion_paper.pdf> accessed 11 January 2022.

¹⁷¹ Jens Korff, 'Constitutional recognition of Aboriginal people' (*Creative Spirit*, 15 August 2021) <<https://www.creativespirits.info/aboriginalculture/politics/Dcultural>> accessed 11 January 2022.

¹⁷² Chittagong Hill Tracts Peace Accord, signed between the government of the People's Republic of Bangladesh and the Parbatya Chattagram Jana Sanghati Samiti (PCJSS) – the political organization representing the Indigenous peoples living in the CHT region on 02 December, 1997, see full accord <https://peaceaccords.nd.edu/wp-content/accords/Chittagong_Hill_Tracts_Peace_Accord.pdf> accessed 11 January 2022.

¹⁷³ Devasish Roy, 'Lessons from the Implementation of the Chittagong Hill Tracts Accord' (*International Work Group for Indigenous Affairs*, 20 October 2021) <<https://www.iwgia.org/en/news/4541-lessons-from-the-implementation-of-the-chittagong-hill-tracts-accord.html>> accessed 11 January 2022.

the CHT's unique characteristics as tribal inhabited zone.¹⁷⁴ Land management, police, tribal law and social justice, juvenile welfare, environmental protection, as well as local tourism are among the 33 tasks that the government is meant to delegate to the Hill District Councils.¹⁷⁵ However, after 24 years of ratification, the treaty's implementation remains on paper rather than in practice.¹⁷⁶ Only 17 tasks have been delegated so far, omitting critical ones like land and land management, environmental protections¹⁷⁷, police as well as law enforcement as specified in Article 34¹⁷⁸ of the Chittagong Hill Tracts Peace Accord 1997.¹⁷⁹ So, while indigenous knowledge and practices are not explicitly protected under the Peace Treaty, they may be safeguarded if Article 34 is adequately implemented. Apart from that, the legislations that addressed biodiversity protection in general did not specifically ensure that indigenous peoples were included and that their distinctive knowledge and practices in biodiversity conservation were recognized.

Bangladesh enacted the Biodiversity Act in 2017, 25 years after ratifying the CBD, but it does not promote best practices for including indigenous people's rights into decision-making processes.¹⁸⁰ The textual settings of the Biodiversity Act, NBSAP as well as the resources available for implementation are inadequate to promote meaningful integration, participation of indigenous people and their knowledge.¹⁸¹ The legislation lags behind the obligations signed by Bangladesh under the CBD. As a result, a more inclusive strategy that promotes explicit references to indigenous knowledge and practices in the language of key legal documents, particularly the Biodiversity Act of 2017, might be a big step toward recognizing their contribution to biodiversity conservation.¹⁸²

¹⁷⁴ The Chittagong Hill Tracts Peace Accord 1997, s 1.

¹⁷⁵ 'Bangladesh: Fully Implement Rights provisions of the Chittagong Hill Tracts Peace Accord' (AMNESTY INTERNATIONAL, 11 December 2020) <https://www.amnesty.org/en/wp-content/uploads/2021/05/AS_A1334072020ENGLISH.pdf> accessed 11 January 2022.

¹⁷⁶ The Daily Star (n 104).

¹⁷⁷ The Chittagong Hill Tracts Peace Accord 1997, art 34.

¹⁷⁸ Article 34 of the Chittagong Hill Tracts Peace Accord 1997 states that, 'The following subjects shall be added in the functions and responsibilities of the Hill District Council: a) Land and land management b) Police (local) c) Tribal law and social justice d) Youth Welfare e) Environment preservation and development f) Local tourism g) Improvement trust and other local government institutions except Pourasabha and Union Councils h) Licensing for local trade and business i) Proper utilization of water resources of rivulets, canals, ponds and irrigation except Kaptai lake j) Preservation of death and birth and other statistics k) Money lending and trade l) Jhum Cultivation.'

¹⁷⁹ AMNESTY INTERNATIONAL (n 175).

¹⁸⁰ 'Independent Review of the EPBC Act, Interim Report, Chapter 3 - Legislative complexity', (2020) <<https://epbcactreview.environment.gov.au...3-legislative-complexity>> accessed 21 August 2021.

¹⁸¹ Interim Report 2.1 - Indigenous knowledge and views are not fully valued in decision-making, 2020 <<https://epbcactreview.environment.gov.au/resources/interim-report/chapter-2-indigenous-culture-and-heritage/21-indigenous-knowledge-anmaking>> accessed 20 August 2021.

¹⁸² Ibid; Valderrama (n 128).

Despite the fact that the Biodiversity Act requires the government, local communities, NGOs, academic groups, and civil society to collaborate to accomplish the Act's objectives, it entirely overlooks the indigenous peoples of this nation. Indigenous people should lead discussions and forums regarding the present and future of biodiversity conservation, and their expertise and practices should be prioritized to aid them in their conservation efforts.¹⁸³ The Biodiversity Act's provisions make it hard for indigenous people to advocate for themselves. Non-indigenous people make the bulk of biodiversity-related choices that affect indigenous people across the world¹⁸⁴ and Bangladesh is no different. All of the committees established under the Biodiversity Act to carry out the goals of the act lacks indigenous representation. The composition and activities of such committees need to be significantly reformed to incorporate indigenous representation.

In the preceding sections, we reviewed existing key biodiversity legislation in terms of legal inadequacies addressing indigenous knowledge and practices. No adequate mechanism was provided to fulfill the PIC and MAT criteria for access to and equitable benefit sharing resulting from the utilization of indigenous knowledge and practice. Further guidelines are required to offer greater clarification on PIC and MAT requirements, particularly for indigenous peoples.¹⁸⁵ Bylaws could play a significant role in filling the vacuum left by the Biodiversity Act in such a situation.¹⁸⁶

The Post-2020 Global Biodiversity Framework along with the 2050 vision of 'Living in Harmony with Nature' provide a chance to outline an effectual as well as viable way ahead to prevent biodiversity degradation and loss in the coming decennium.¹⁸⁷ Bangladesh could embrace this opportunity to bring transformative change. This transformative action involves moving from exclusionary policy to inclusive policy towards indigenous knowledge and practices in biodiversity conservation.¹⁸⁸ In this case, national legislations and forthcoming NBSAPs of Bangladesh could play key role in developing and implementing more inclusive biodiversity policies for IKPs with a view to improving conservation outcomes.¹⁸⁹ A comprehensive review of the CBD implementing frameworks of various megadiverse countries¹⁹⁰ reveals that

¹⁸³ Fernández-Llamazares et al. (n 49).

¹⁸⁴ Artelle et al. (n 108).

¹⁸⁵ Sajal (n 25).

¹⁸⁶ Elia Mwangi, 'The Role of By-Laws in Enhancing the Integration of Indigenous Knowledge' (2019) *Carbon & Climate Law review (CCLR)* 23.

¹⁸⁷ Fajardo et al. (n 5).

¹⁸⁸ Pirjo Kristiina Virtanen, Laura Siragusa and Hanna Guttorm, 'Introduction: toward more inclusive definitions of sustainability' (2020) 43 *Current Opinion in Environmental Sustainability* 77.

¹⁸⁹ *ibid.*

¹⁹⁰ 'MEGADIVERSE COUNTRIES' (Iberdrola) <<https://www.iberdrola.com/sustainability/megadiverse-countries>> accessed 11 January 2022.

several states have already set targets for the period up to 2030 and the majority of NBSAP expressly recognizes indigenous people and their knowledge, practice, and innovations in biodiversity conservation and sustainable use. The targets set in such NBSAPs include acknowledging IPs' protagonist position¹⁹¹ and agency¹⁹², in conservation issues, honoring their culture, knowledge, values, and practices¹⁹³, ensuring their right to participate in national conservation decision-making, as well as free interchange of traditional knowledge¹⁹⁴. When it comes to integrating and acknowledging indigenous people and their knowledge and practices, Bangladesh's forthcoming NBSAP and future biodiversity conservation initiatives could draw from the experience of such megadiverse countries. To foster an inclusive approach in the upcoming NBSAP, Bangladesh needs to address the concerns of the IP in its objectives as well as set particular targets to acknowledge their role, ensure their agency and involvement in all national conservation decision making, and facilitating the exchange of indigenous knowledge.

5. Conclusion

Indigenous peoples' contributions to the improvement and preservation of biodiversity are becoming more widely recognized. Formal recognition and integration of such knowledge and practice through legislation and national strategy not only enhance biodiversity conservation but also improves the livelihoods of indigenous people.¹⁹⁵ Based on previous assessments, the article proposes that in the immediate term, constitutional amendments as well as legislative amendments to existing legislations are required to address observed inefficiencies, gaps, as well as conflicts. Analysis of the Constitution of Bangladesh, Biodiversity Act, and NBSAP reveal that we need to work on insertion of the very terms like 'Indigenous people'¹⁹⁶ 'Indigenous Knowledge and Practices'¹⁹⁷ to recognize their contributions and preservation of such knowledge. Indigenous community representatives should be included in all committees established under the Biodiversity Act.¹⁹⁸ Legislation should ensure

¹⁹¹ Ministry of Environment, Federative Republic of Brazil, 'National Biodiversity Strategy and Action Plan' (2017) <<https://www.cbd.int/doc/world/br/br-nbsap-v3-en.pdf>> accessed 11 January 2022.

¹⁹² Ministry of Environment, Forest and Climate Change, Government of India, 'National Biodiversity Action Plan (Addendum 2014 to NBAP 2008)' (2014), National Target 6, <<https://www.cbd.int/doc/world/in/in-nbsap-v3-en.pdf>> accessed 11 January 2022.

¹⁹³ Commonwealth of Australia, 'National Biodiversity Strategy and Action Plan (2019-30)' <<https://www.cbd.int/doc/world/au/au-nbsap-v3-en.pdf>> accessed 11 January 2022.

¹⁹⁴ *ibid.*

¹⁹⁵ Valderrama (n 128).

¹⁹⁶ Constitution of People's Republic of Bangladesh, art 23A; Bangladesh Biodiversity Act 2017, ss 10(8), 28(1), 28(4) 28(6) (a), 28(6) (c), 28(6) (f), 28(6) (g), 31(6), 32(2), 32(3) & 34(1).

¹⁹⁷ Constitution of People's Republic of Bangladesh, art 23A; Bangladesh Biodiversity Act 2017, ss 4(3)(a), 10(8), 24(2)(d), 27(2)(d) & 31(6).

¹⁹⁸ Bangladesh Biodiversity Act 2017, ss 8, 11, 13, 16, 19, 22, 24 & 25.

that indigenous people receive their fair and equitable share of benefits resulting from the utilization and application of their knowledge, innovations and practices. It is critical that section 30 of the Biodiversity Act, which is the prime provision dealing with the fair sharing of benefits arising out of genetic or biological resources, be amended so that it truly reflects the rights of indigenous people. In addition, appropriate bylaws or rules should be developed to provide guidelines on PIC and MAT requirements for indigenous communities.¹⁹⁹

In the long run, rather than unwittingly impeding indigenous knowledge and practices, a thorough redrafting of the Act promoting an inclusive approach to indigenous knowledge and practices should be adopted, and proper implementation of such Act should be ensured.

This article analyzed the loopholes of the existing legal regime and recommended further legislative actions regarding the recognition and integration of the knowledge and practices of indigenous people. The findings show that recognizing and integrating IKPs would help to achieve Bangladesh's national targets under the post-2020 global biodiversity framework. Any existing gaps in present legislation that hinder the recognition of indigenous people, their knowledge and practices could be remedied by amending the law. Furthermore, to integrate indigenous knowledge and practice into biodiversity policy, the emphasis should be given on inclusive policy formulation, beginning with constitutional recognition, to fully embrace as well as embody indigenous people's role in biodiversity conservation.

¹⁹⁹ *ibid*, s 30(3).