

# Community Protocols: The Legal Framework to Safeguard Biocultural Rights in South Africa Policy Brief

Sobantu Mzwakali

### Introduction

his article examines the "biological diversity/cultural diversity" nexus via the lens of international law as understood in the legal context of South Africa. Biocultural Community Protocols (BCP) and biocultural rights herald the arrival of biocultural methods for the protection of biodiversity. They are not, however, limited to the realm of preservation. BCPs get at the very essence of sovereignty and the politics of identity; they bear on land rights; and they touch on issues that could be understood as political ontology. South Africa is breaking new ground as BCPs and biocultural rights have been brought together, largely through the efforts of lawyer and activist Kabir Bavikatte (Bavikatte 2014).

Two major tendencies are apparent in literature aimed at understanding how communities engage with their natural resources and how their policies respond to regional, national, and global impacts. Local and indigenous populations are not opposed to development or policies that try to improve their livelihoods. However, they are dubious of both the process and outcome of policymaking and feel that it does not adequately account for their interests and ways of life. Second, policies frequently fail to reflect the underlying principles of rights-based approaches practiced by communities. This results in conflicts between those policies and the rights asserted by communities in respect of self-determination, territories and land, development, customary law, and cultural heritage.

Thus, the exploitation of natural resources, customs and the traditional knowledge associated with them has been contentious and discriminatory. Consider Hoodia Gordonii, a plant utilized by Khoisan as an appetite suppressant since time immemorial. Someone outside the community discovered the plant's medicinal quality and, without the community's consent, patented it as an appetite suppressant (Foster, 2017). Similar narrative arcs are evident in numerous communities throughout the globe, such as in Madagascar for the rosy periwinkle plant patented for its cancer-fighting properties (Atkinson, Jonathan and Moodie 2013), and in India for the various uses of the Neem tree (Schumacher 2013). This unjust development has been widely criticized and labelled "biopiracy," as well as the misappropriation and "theft" of traditional knowledge (Mukuka 2010).51

51 "Biopiracy" was first defined by Pat Mooney and made well-known by other scholars such as Vandana Shiva. It refers to the "robbery of the biological raw materials" such as genetic resources and "the knowledge about the use of such resources". It is further defined as "the appropriation of the knowledge and genetic resources of farming and Indigenous

Access and benefit-sharing (ABS) initiatives are central to rectifying the commercial exploitation of indigenous knowledge by outsiders. ABS prioritizes the consent of all actors involved and the distribution of the benefits arising from the exploitation of natural resources as instruments for achieving distributive justice. Under the Convention on Biological Diversity (CBD), an international legal response was negotiated in 2010 through the Nagoya Protocol to regulate the ABS of genetic resources and associated traditional knowledge. The protocol proposes the establishment of mechanisms to ensure prior informed consent and mutually agreed terms between providers and consumers, as well as a system of monitoring to ensure international compliance. On this basis, it is assumed the benefits derived from ABS agreements play a significant role in financing biodiversity conservation in developing regions of the globe and alleviating poverty in disadvantaged communities (Mainguy 2012).

However, critics assert that ABS initiatives involving traditional knowledge typically fail because they neither adequately reflect the requirements nor the culture of indigenous communities, particularly when the actors are not involved in their formulation. Consequently, one of the safeguards included in the Nagoya Protocol was the recognition of community protocols as local governance schemes.

By entering the realm of international, regional, and national laws to develop a Biocultural Community Protocol (BCP), for example, indigenous people and local communities in South Africa hope to become more aware of their rights and better able to advocate for the respect and implementation of these rights. However, deciding how to pursue rights vindication is not a simple process. Rights regarding access to land, benefit-sharing, traditional knowledge, carbon emissions, protected areas, and much more are established by a growing body of international and domestic laws, policies, court cases, declarations, and guidelines pertaining to indigenous peoples, local communities, and environmental protection. The International Land Coalition (ILC) in 2016 and Payandeh (2015) note that these rights are inherently disjointed because they are dealt with by separate groups, can be found in a variety of places, and are often interpreted in varying ways by different courts. As a result, indigenous peoples and local communities must work with a wide variety of legal sources to secure safeguards for the various facets of their lives that are inextricably intertwined with one another and with the biocultural landscape.

# Biocultural Rights: Confluence of the Political Ecology, the Commons and the Indigenous Peoples' Rights

Sanjay Kabir Bavikatte proposes the concept of biocultural rights (2014; Bavikatte & Bennet, 2015). Its purpose is to investigate and address the biocultural landscape of indigenous peoples and wider communities dependent on land-based livelihoods. Biocultural rights combine many of the separate rights that indigenous peoples and other land-based communities need to advance self-governance and preserve cultural identities. Under international law, self-governance and cultural preservation are frequently considered to be two distinct entities. This is due to the fact that their circumstances are similar enough to enable comparison while distinct enough to merit separate treatment.

Bavikatte argues that the emergence of biocultural rights results from the intersection of movements for the rights of indigenous peoples and local communities with movements for political ecology and the commons. There are many points of agreement between these groups. They all concern the state of local ecosystems, and conclude that the best way to do this is to defend the rights of indigenous peoples and local inhabitants.

Therefore, all the rights necessary for indigenous and local communities to take care of their own land and water are collectively known as biocultural rights. This stewardship obligation represents a way of life in which the land and water upon which a community depends are integral to that community's sense of self, culture, religion, as well as its political institutions, and traditional economic activities. The relationship between a group and its territory is comparable to a fiduciary duty to protect and enhance it, rather than to exploit it.

communities by individuals or institutions who seek exclusive monopoly control (patents and intellectual property) over this knowledge and resources" (Martinez-Alier, 2003, p. 132)

When it comes to protecting human, heritage, and environmental rights, international law is evolving toward a more inclusive and comprehensive stance. However, the precise details of this strategy are rarely discussed (Gillespie, 2000). The idea of biocultural rights is an attempt to respond to the substance of such an all-encompassing method. The current method of conserving indigenous resources approaches the right to natural resources independently from the right to cultural resources—notwithstanding the strong interdependence between these two. There is an inseparable connection between indigenous peoples and local communities natural and cultural resources, and so biocultural rights are defined as a set of substantive indigenous and biological resource rights that protect both (Nemogá, Appasamy and Romanow 2022).

That indigenous peoples and local communities' cultural resources can only exist because of indigenous and biological natural resources, and vice versa, is a central tenet of the biocultural rights framework. The current disjointed and distinct systems of substantive indigenous rights to natural and cultural resources would be unified by the legal notion of biocultural rights. Numerous works advise caution before establishing new legal protections (Heald & Sherry, 2000). However, biocultural rights are not supplementary rights for indigenous peoples and local communities; rather, they are rights that bring together people's pre-existing rights to resources.

The idea of biocultural rights needs to be broad enough that different people can come to different conclusions about what it means. When a standardizing paradigm is forced on different contexts with vastly varied historical, political, cultural, and economic foundations, the inevitable result is pushback. Indigenous peoples and local communities should be given more weight in the interpretation, and communities should be actively involved in the process. Given the challenges indigenous peoples and local communities are up against, it's clear that a 'pro-people, ecology, and commons' stance is essential.

### Biocultural Community Protocols: Customary Norms, Values, and Laws

The United Nations Nagoya Protocol on Access and Benefit Sharing provided the first legal recognition for the concept of a biocultural community protocol, which is now widely used by indigenous peoples in Africa, Asia, and Latin America to convey their local governance structures, assert their longstanding connection to land, and highlight the importance of shared natural resources to their way of life (Delgado 2016).

To assist indigenous peoples and local communities document and articulate their customary norms, values, and laws in a way that ensures their recognition under emerging national and international laws, a new concept in environmental law and policy has emerged: community protocols.

Indigenous communities in Kenya, Ethiopia, and Namibia, for instance, are working on community protocols to define their governance structures, establish shared land management processes, and advocate for both public and private sectors to recognize their rights as custodians of indigenous and community-conserved areas.

The Mo'otz Kuxtal Voluntary Guidelines, adopted by the 13th Conference of the Parties of the Convention on Biological Diversity (CBD), present community protocols as follows:

Community protocols is a term that covers a broad array of expressions, articulations, rules and practices generated by communities to set out how they expect other stakeholders to engage with them. They may reference customary as well as national or international laws to affirm their rights to be approached according to a certain set of standards.

Articulating information, relevant factors, and details of customary laws and traditional authorities helps other stakeholders to better understand the community's values and customary laws. Community protocols provide communities an opportunity to focus on their development aspirations vis-a-vis their rights and to articulate, for themselves and for users their understanding of their bio-cultural heritage and therefore on what basis they will engage with a variety of stakeholders.

By considering the interconnections of their land rights, current socio-economic situation, environmental concerns, customary laws and traditional knowledge, communities are better placed to determine for themselves how to negotiate with a variety of actors.

BCPs have been developed throughout Africa and elsewhere in the world since the implementation of the Nagoya Protocol (and in certain cases, before). Communities are employing BCPs to engage in communication and negotiation with a wide variety of external actors, to document their processes for Free Prior Informed Consent (FPIC) and decision-making, and to protect their rights over resources and information.

When applied to the ABS framework, BCPs have universally increased community members' understanding of ABS and the value of safeguarding indigenous knowledge and practices. Communities have utilized their protocols to successfully negotiate benefits in various instances. Communities have developed and employed BCPs for a variety of purposes, including bargaining with the cosmetics industry, securing access to resources and property within national parks, and, most recently, halting the construction of a coal power plant (Booker, Stephanie, Knight, Rachael & Brinkhurst, Marena, 2015)

By developing BCPs, indigenous and local communities are essentially claiming a locally specific set of rights and duties in regard to the administration of their territories and the conservation and sustainable use of their natural resourcesIndigenous peoples and local communities are demanding to be treated fairly and in accordance with the rules and norms that have been established for them. BCPs are critical for establishing the protocols to be observed by industries and researchers amongst other stakeholders, who seek community consent for access to their resources. BCPs are a successful implementation of the Nagoya Protocol at the national level.

The Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the UN Convention on Biological Diversity is the first legally binding international framework to establish a set of rights for indigenous peoples and local communities over their genetic resources and traditional knowledge as well as recognizing community protocols as a valid legal tool for community consent. The Nagoya Protocol therefore holds significant potential for the valorisation and protection of traditional knowledge, the generation of local benefits, and the recognition of the role of indigenous peoples and local communities as custodians of biodiversity, including through their customary laws and processes. However, the fulfilment of this promise will depend largely on how the Nagoya Protocol is implemented through national ABS frameworks, and through local processes for prior, informed consent, and mutually agreed terms (MAT). Experiences with past ABS cases involving communities reveal a number of key challenges facing indigenous communities in regard to Access and Benefit Sharing. BCPs act as an interface between customary laws and community governance structures on one side, and national and international frameworks on the other.

## Intersection of Laws Supporting Development of Community Protocols for Biocultural Rights

The following section will detail international treaties, legislation, and policies that affect biocultural rights in relation to human rights, land rights, environment, conservation, climate change, economic development, and participation. It will offer analysis of how these legal frameworks impact biocultural rights.

Every year South Africa joins the international community to commemorate International Human Rights Day on 10 December, marking the United Nations General Assembly's 1948 adoption of the Universal Declaration of Human Rights. On the same day in 1996, former South African President Nelson Mandela signed the Constitution of South Africa into law.

The UDHR is a milestone document which underpins all international human rights law and was drafted by representatives from different legal and cultural backgrounds from across the world. It continues to inspire struggles for freedom, equality and dignity and establishes universal standards for their attainment. Premised on the UDHR, South Africa has included amalgamated human rights in the country's Bill of Rights, Chapter 2 of the Constitution of the Republic of South Africa, 1996. The Bill of Rights widely addresses South Africa's history of oppression, colonialism, slavery, racism and sexism and other forms of human violations. It embeds the rights of all people in South Africa as an enduring affirmation of the democratic values of human dignity, equality and freedom.

There are numerous legal instruments which seek to promote and protect the rights of indigenous persons, both domestic as well as international. On an international level, the key instruments which govern the rights of indigenous peoples are the United Nations Declaration on the Rights of Indigenous People (UNDRIP) and the International Labour Organization's Indigenous and Tribal Peoples' Convention No. 169 ("ILO Convention No.169")

However, other instruments also apply to various aspects of the rights of indigenous persons, including, but not limited to the International Convention on the Elimination of All Forms of Racial Discrimination; the Convention on the Rights of the Child; the Convention on Biological Diversity; Universal Declaration on Cultural Diversity; the Convention for the Safeguarding of the Intangible Cultural Heritage; and the Convention for the Protection and Promotion of the Diversity of Cultural Expressions, amongst others. South Africa is expected to adhere to its international legal obligations by integrating the laws and conventions it is signatory to into its national laws and regulations.

### International Treaties Legal and Framework

South Africa adopted UNDRIP in 2016. The Declaration imposes several obligations on member states. It also prohibits discrimination against indigenous peoples and promotes their full and effective participation in all matters that concern them. These pronouncements are also fully in line with the country's democratic constitution.

South Africa has many World Heritage Sites, biosphere reserves, Ramsar sites, (wetlands of international importance - named after the city the 1971 convention was signed in), and World Heritage Sites all included in the definition of protected areas in terms of the National Environmental Management: Protected Areas Act (NEMPAA). In terms of the World Heritage Convention Act 49 of 1999 (WHCA), the participation of all interested and affected parties in the governance of natural and cultural heritage must be promoted, and all people must have the opportunity to develop the understanding, skills, and capacity necessary for achieving equitable and effective participation (section 4(d), (e), WHCA). World Heritage Sites are managed by an authority, which may be an existing organ of state, or a new authority appointed by the Minister responsible for the Department of Forestry, Fisheries and the Environment (DFFE). In theory, there is nothing to prevent a member of an indigenous people or local community from being appointed as the authority, as long as they are able to channel their authority through a juristic person. Representation of directly affected adjacent communities and affected adjacent tribal authorities on the boards of World Heritage Site Authorities is also specifically allowed (section 14, WHCA).

South Africa is party to the Convention on Biological Diversity (CBD), which has three main goals: the conservation of biological diversity; the sustainable use of the components of biological diversity; and the fair and equitable sharing of the benefits arising out of the utilisation of genetic resources. States have the right to exploit their own resources within the framework of their environmental policies, and they are responsible for ensuring that this exploitation does not cause damage to their environment. Each state that is party to the CBD must develop national strategies, plans, or programmes for the conservation and sustainable use of biological diversity, and they should integrate the conservation and sustainable use of biological diversity into programmes, plans, and policies across different governmental sectors. The Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilisation is a supplementary agreement to the CBD, which was adopted on 29 October 2010. The Nagoya protocol creates more legal certainty and transparency for both the providers and users of genetic resources. It establishes more predictable conditions for access to genetic resources and ensures benefit-sharing when genetic resources leave the country that they belong to. The Nagoya protocol also covers traditional knowledge that may be associated with certain genetic resources and helps ensure benefit sharing with the communities that may hold the traditional knowledge. The protocol also addresses genetic resources, where indigenous and local communities have established rights to grant and access these resources. The domestic-level obligations for states that are parties to access genetic resources include:

- Create legal certainty, clarity and transparency;
- Provide fair and non-arbitrary rules and procedures;
- Establish rules for prior informed consent and mutually agreed terms;
- Provide issuance of permits or an equivalent when access is granted;
- Create conditions to promote and encourage research contributing to biodiversity,
- conservation and sustainable use, and;
- pay due regard to cases of present or imminent emergencies that threaten human, animal, or plant health.

### National laws and Policies in South Africa

Created after the fall of the apartheid regime, the South African constitution was hailed as one of the most progressive in the world, as it specifically set out to redress the injustices of the past and the apartheid system. The Bill of Rights in the Constitution articulates several rights that are of seminal importance to indigenous people and customary communities. These include a right to environment, property, language, and culture, and a right to belong to and practice as a member of a cultural, religious, or linguistic community. In addition to these substantive rights, indigenous and customary communities enjoy procedural rights of access to information, just administrative action, and a right of access to the courts. These rights are relevant to the self-determination of indigenous and customary communities and their protection of cultural systems of control over natural resources.

The right to environment in South Africa is weakly formulated, and does not guarantee the right of access to, control over or use of natural resources. The South African government has enacted an extensive suite of environmental legislation over the past twenty years that does, to some extent, address the concern of the self-determination of indigenous and customary communities as regards control over territories, areas, and natural resources. Customary law is recognised as an independent source of law and any rights conferred by customary law are recognised so long as they are consistent with the Constitution.

The South African government is constitutionally bound to protect the environment, for the benefit of present and future generations, through reasonable legislative and other measures that, amongst other objectives, promote conservation (section 24(b)). In the democratic era, this responsibility has been exercised through the enactment of the following legislation:

National Environmental Management Act (NEMA) was promulgated to give effect to Section 24 of the Constitution. The aim of NEMA is to create the legal framework in terms of which of the rights encapsulated in section 24 can be implemented. NEMA establishes governmental institutions and processes to ensure proper environmental protection and establishes environmental management principles which apply to all actions that may influence the environment. The principles serve as a contextual backdrop against which all environmental legislation must be interpreted, administered and implemented. Importantly, sections 42 and 42A of NEMA apply to the Biodiversity Act. Under section 42 of NEMA, the Minister has delegated the power to issue bioprospecting permits, and integrated export and bioprospecting permits to the Director-General. It should be noted that the power to approve benefit-sharing agreements and material transfer agreements has not been delegated. This signifies that the involvement of stakeholders especially community members is key in making such agreements.

The National Environmental Management Act (NEMBA) regulates the conservation and sustainable use of biodiversity. There are certain aspects of the legislation that are of significance to indigenous peoples and local communities. For instance, chapter 6 of NEMBA regulates bioprospecting, access and benefit sharing. Section 82 (1) provides that before a permit referred to in section 5I(l)(a) or (b) is issued, the issuing authority considering the application for the permit must protect any interests in the proposed bioprospecting project held by any of the following stakeholders: (a) A person, including any organ of state or community, providing or giving access to the indigenous biological resources to which the application relates; and (i) whose traditional uses of the indigenous

biological resources to which the application relates have initiated or will contribute to or form part of the proposed bioprospecting; or (ii) whose knowledge of or discoveries about the indigenous biological resources to which the application relates are to be used for the proposed bioprospecting. Section 83 governs benefit sharing agreements.

National Water Act 36 of 1998 (NWA) governs the protection, conservation, use, management, control, and development of the nation's water resources. This legislation was revolutionary in moving freshwater governance away from the riparian principle as a basis for the allocation of water resources, to an administrative system driven by the constitutional imperatives of ensuring equitable access to water resources and the protection of water resources to meet the basic needs of present and future generations.

Marine Living Resources Act 18 of 1998 (MLRA) regulates the subsistence and commercial fishing industry in South Africa. The Act refocuses the governance of the fishing industry on small-scale fisheries. To this end, it allows for the recognition of "small-scale fishing communities".

The Indigenous Knowledge Systems Act 2019 seeks to provide legal protection for indigenous knowledge by recognising prior learning, accreditation of indigenous knowledge 'Assessors' and the designation of certified indigenous knowledge practitioners - creating a register of indigenous knowledge by NIKSO.

National Heritage Resources Act 25 of 1999 (NHRA) provides for a three-tier system of heritage resources management. The NHRA may contribute to the conservation of biodiversity, considering the cultural link of indigenous communities to various fauna and flora.

With respect to land, the underlying assumption of the Interim Protection of Informal Land Rights Act 31 of 1996 (IPILRA), with its recognition of informal rights to land, is that customary laws and procedures are used for local stewardship of communal land. This stewardship is qualified only to the extent that customary laws and procedures must be deemed to include democratic consultation, participation, and decision-making when the community disposes of land or informal rights (section 2(4), IPILRA).

South Africa has no legislation specifically providing for indigenous peoples' or customary communities' stewardship of sacred natural sites. However, 'sacred national sites' may be included in the definition of the "national estate", in terms of the National Heritage Resources Act 25 of 1999 (NHRA). The Act applies to the management and conservation of heritage resources. The NHRA would be relevant to the conservation of biodiversity, considering the cultural link of indigenous communities to various fauna and flora. Cultural heritage resources form part of the natural environment.

Legal and non-legal recognition and support for indigenous peoples and local communities' conserved territories, areas, and natural resources are mutually reinforcing. Unless there is adequate legal recognition, non-legal recognition and support cannot be effectively conceived or implemented. Similarly, unless there is effective non-legal recognition and support through non-legal means, including social recognition, advocacy, developmental help, financial assistance, networking, and legal assistance, legal recognition is hollow.

It is difficult to imagine that external threats, namely systemic pressures on the environment and biodiversity worldwide, the direct pressures on indigenous peoples and local communities and their territories and resources, and inadequacy of legal recognition, will be resolved without a clear legal text on the terms, roles, and responsibilities to achieve this end. Having said that, it is unreasonable to expect that law and policy on their own are enough. The soft platform provided by non-legal means can, at the very least, help to actualise the provisions and commitments under law and policies. This is particularly the case in South Africa, where some laws such as the Restitution of Land Rights Act, 1994; the National Environmental Management: Protected Areas Act, N° 57, 2003; the National Environmental Management: Biodiversity Act 10, 2004 and the Communal Property Associations Act 28 of 1996 allow for institutions and initiatives that can be engaged with for the recognition, and support of indigenous peoples and local communities' conserved territories, areas and natural resources.

#### Conclusion

The protection of biocultural rights is not just reasonable but essential. Indigenous peoples and local communities have a right to do so because of the wrongs done to them in the past, wrongs that have resulted in the denial of their rights to land, territory, means of livelihood, language, cultural identity, and ways of life. The plea, however, also looks forward. The unique traits and ways of life of indigenous peoples and local groups contribute greatly to the biocultural diversity of our planet (Guruswamy, Roberts, & Drywater, 2000).

For a comprehensive approach to securing biocultural rights, we must prioritise safeguarding the natural and cultural resources that are intrinsic to indigenous peoples' and local communities' very survival. In other words, the purpose of biocultural rights is to ensure the continued well-being of indigenous peoples and local communities by addressing historical wrongs and securing them for future generations.

The consequences of biocultural rights on policymaking are multifaceted. When it comes to biocultural rights, the United Nations and its operational agencies ought to adopt a new paradigm of biocultural rights and work towards a more comprehensive legal document that codifies this claim. In order to effectively safeguard indigenous peoples and local communities, non-governmental organisations and activists working on human and environmental rights may use biocultural rights as a shared commitment. The concept of biocultural rights could assist national policymakers in establishing more inclusive, respectful policy towards indigenous peoples and local communities, that is in turn consistent with the range of applicable international laws described herein.

The South African government is called upon to support the development of biocultural community protocols (BCPs) of indigenous people and local community, and to take into account community protocols and other community rules and procedures where traditional knowledge associated with genetic resources is concerned. BCPs are critical for communities as they establish the protocol that is to be observed by industries and researchers, amongst other stakeholders, who seek their consent for access to their resources. BCPs are a successful implementation of the Nagoya Protocol at the national level.

A new and exhilarating energy may propel us forward toward a brighter and more just future for indigenous peoples and all of humanity with the introduction of an umbrella right—biocultural rights. For good reason, the United Nations declared in 2007 that "all peoples contribute to the diversity and richness of civilizations and cultures, which constitute the common heritage of humankind" (Preamble).

#### References

- Alexander Gillespie (200) "International Environmental Law, Policy and Ethics" Oxford: Oxford UU, 2000, Chapter 1, Anthropocentrism
- Atkinson, Jonathan DM, and Rachel S Moodie. "Legitimate Patent Extension or Patent System Abuse?" Pharmaceutical Patent Analyst 2, no. 3 (May 2013): 317–24. https://doi.org/10.4155/ppa.13.24.
- Bavikatte, Kabir Sanjay, and Tom Bennett. "Community Stewardship: The Foundation of Biocultural Rights." Journal of Human Rights and The Environment. Edward Elgar Publishing, March 1, 2015. <a href="https://doi.org/10.4337/jhre.2015.01.01">https://doi.org/10.4337/jhre.2015.01.01</a>.
- Bavikatte, Sanjay. (2014). Stewarding The Earth: Rethinking Property and the Emergence of Biocultural Rights. Stewarding The Earth: Rethinking Property and the Emergence of Biocultural Rights. 1-256. 10.1093/acprof:oso/9780198098669.001.0001.
- CBD. (2021). *Parties to the nagoya protocol*. Secretariat of the convention on biological diversity. <a href="https://www.cbd.int/abs/nagoya-protocol/signatories/">https://www.cbd.int/abs/nagoya-protocol/signatories/</a>
- CBD-NP (2014). Nagoya protocol on access to genetic resources and the fair and equitable sharing of benefits arising from their utilization to the convention on biological diversity. https://www.cbd.int/abs/doc/protocol/nagoya-protocol-en.pdf
- Delgado, N. A. (2016, August 1). Community Protocols As Tools For Resisting Exclusion In Global Environmental Governance. SciELO Brazil <a href="https://doi.org/10.1590/S0034-759020160404">https://doi.org/10.1590/S0034-759020160404</a>

- Foster, Laura A. (2017) Reinventing Hoodia: Peoples, Plants and Patents in South Africa (Seattle: University of Washington Press Feminist Technoscience Series]
- Gaëll Mainguy. (2012) "Biodiversity Conservation and Poverty Alleviation: A Way out of the Deadlock?," May 18, 2012. <a href="https://journals.openedition.org/sapiens/1452">https://journals.openedition.org/sapiens/1452</a>.
- George Sombe Mukuka (2010) "Reap what you have not sown" Indigenous Knowledge Systems and Intellectual Property Laws in South Africa
- Lakshman Guruswamy, Jason C. Roberts & Catina Drywater, Protecting the Cultural and Natural Heritage: Finding Common Ground, 7 Buff. Envtl. L.J. 47 (1999-2000). Available at: https://digitalcommons.law.buffalo.edu/belj/vol7/issl/3
- Nemogá, G. R., Appasamy, A., & Romanow, C. A. (2022). Protecting Indigenous and Local Knowledge Through a Biocultural Diversity Framework. The Journal of Environment & Development, 31(3), 223–252. https://doi.org/10.1177/10704965221104781
- Payandeh, Mehrdad, Fragmentation within International Human Rights Law (July 16, 2014). Forthcoming in: Mads Andenas/Eirik Bjorge (eds.), A Farewell to Fragmentation: The ICJ's Role in the Reassertion and Convergence of International Law, Cambridge University Press, 2015., Available at SSRN: https://ssrn.com/abstract=2466888 or <a href="http://dx.doi.org/10.2139/ssrn.2466888">https://ssrn.com/abstract=2466888</a> or <a href="http://dx.doi.org/10.2139/ssrn.2466888">http://dx.doi.org/10.2139/ssrn.2466888</a>
- Schumacher M, Cerella C, Reuter S, Dicato M, Diederich M. Anti-inflammatory, proapoptotic, and anti-proliferative effects of a methanolic neem (Azadirachta indica) leaf extract are mediated via modulation of the nuclear factor-kB pathway. Genes Nutr. 2011 May;6(2):149-60. doi: 10.1007/s12263-010-0194-6. Epub 2010 Dec 14. PMID: 21484152; PMCID: PMC3092905.
- Secretariat of the Convention on Biological Diversity (2019). Mo' otz Kuxtal Voluntary Guidelines for the development of mechanisms, legislation or other appropriate initiatives to ensure the "prior and informed consent", "free, prior and informed consent" or "approval and involvement", depending on national circumstances, of indigenous peoples and local communities for accessing their knowledge, innovations and practices, for fair and equitable sharing of benefits arising from the use of their knowledge, innovations and practices relevant for the conservation and sustainable use of biological diversity, and for reporting and preventing unlawful appropriation of traditional knowledge. (CBD Guidelines Series).
- Suzanna Sherry and Paul J. Heald, Implied Limits on the Legislative Power: The Intellectual Property Clause as an Absolute Constraint on Congress, 2000 University of Illinois Law Review. 1119 (2000)
- The South African Constitution, General Provisions Chapter 14, Section 231-243 UN. (2007a). United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), A/RES/61/295.
  - https://www.un.org/development/desa/indigenouspeoples/decla-ration-on-the-rights-of-indigenous-peoples.html
- Understanding the Indigenous and Tribal People Convention, 1989 (No. 169). Handbook for ILO Tripartite Constituents / International Labour standards Department. International Labour Organization. Geneva, 2013.