The Protection of Traditional Knowledge associated with Genetic Resources by using Community Protocols

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Indigenous peoples and local communities' traditional knowledge are essential for the protection of global biodiversity as 80 % of the global biodiversity lies within land managed by indigenous peoples. Traditional knowledge has been misappropriated since before the 15th century. Today, traditional knowledge is misappropriated when corporate entities monopolise and patent the knowledge, without the communities' approval. Knowledge is also lost due to environmental disruption by development and infrastructure projects.

The Convention on Biological Diversity and the Nagoya Protocol protects traditional knowledge through access and benefit-sharing obligations. The Nagoya Protocol further holds an obligation to consider community protocols, in accordance with domestic laws, when implementing state obligations concerning access and benefit-sharing. As it is only the Nagoya Protocol that directly refers to community protocols and only as an obligation to consider them in accordance with domestic law, the benefit of community protocols and their ability to protect traditional knowledge, depends on the support and regulation of community protocols at both the national and international level. The aim of this study is, therefore, to examine the protection of traditional knowledge by using community protocols, by analysing how community protocols are regulated and supported at the local, national and international level.

To determine how community protocols are regulated and supported at the international level, the Nagoya Protocol and decisions by the Conference of the Parties to the Convention on Biological Diversity are examined. To conclude how community protocols are applied and upheld in practice, national legislation and practices regarding the support and development of community protocols are reviewed. At the local level community protocols by the Raika community in India and the Kukula Traditional Health Practitioners Association in South Africa are analysed, together with an analysis of the national legislation relating to the protection of traditional knowledge.

This thesis finds that at the international and national level, the use of community protocols is encouraged as an instrument to assist in the access and benefit-sharing process. They are not regulated or supported as an instrument that can protect environmental sustainability, which would also indirectly safeguard traditional knowledge. However, at the local level community protocols are seen as a more versatile tool that can be used to protect the environment, provide access to restricted land and clarify the access and benefit-sharing procedure. Community protocols are by no means regulated or supported as a panacea for the protection of traditional knowledge and the regulation and support for them at the local, national and international level differ. Nevertheless, community protocols are considered to be a versatile instrument that can be adapted to suit the indigenous communities' needs depending on the states willingness and the communities understanding of their rights both nationally and internationally.

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Access and Benefit-Sharing, Community Protocols, Convention on Biological Diversity, Environmental Law, Human Rights Law, Indigenous Peoples, International Law, Nagoya Protocol, Traditional Knowledge

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SOURCES

TREATIES AND LEGISLATION

International Treaties and Declarations

Agreement on Trade-Related Aspects of Intellectual Property Rights, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C (adopted 15 April 1994) 1869 UNTS 299

Convention on Biological Diversity (adopted 5 June 1992, entered into force 29 December 1993) 1760 UNTS 79

Convention Establishing the World Intellectual Property Organization (adopted 14 July 1967, entered into force on 26 April 1970) 11846 UNTS 828

Convention (No. 169) concerning indigenous and tribal peoples in independent countries (adopted 27 June 1989, entered into force 5 September 1991) 1650 UNTS 383

International Covenant on Civil and Political Rights (adopted 16 December 1966, entered into force 23 March 1976) 999 UNTS 171

International Covenant on Economic, Social and Cultural Rights (adopted 16 December 1966, entered into force 3 January 1976) 993 UNTS 3

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 (opened for signature 2 February 2011, entered into force 12 October 2014) UNEP/CBD/COP/DEC/X/1

UN Declaration on the Rights of Indigenous Peoples, UNGA Res 61/295, UN Doc A/RES/47/1 (13 September 2007)

Indian Legislation and National Reports

India, '6th National Report on the Convention on Biological Diversity' (2018) The Clearing-House Mechanism of the Convention on Biological Diversity <https://chm.cbd.int/pdf/documents/nationalReport6/241351/1> accessed 20 July 2020

Republic of India, Biological Diversity Act 2002 [No. 18 of 2003, published 5 February 2003, India Gazette, Extraordinary Part II-Section 2-Subsection (1)]

Republic of India, Biological Diversity Rules 2004 [GSR 261 E, published 15 April 2004, India Gazette, Extraordinary Part II – Section 3-Sub-section (i)]

South African Legislation and National Reports

Republic of South Africa, Intellectual Property Laws Amendment Act No. 28 of 2013 [No. 37148]

Republic of South Africa, National Environmental Management Act 107 of 1998

Republic of South Africa, National Environmental Management Act: Biodiversity Act No 10 of 2004 [No. 26436]

Republic of South Africa, Parliamentary Monitoring Group, 'Traditional and Khoi-San Leadership Bill (B23-2015) Section 76: Ordinary Bills Affecting the Provinces' <https://pmg.org.za/bill/593/> accessed 5 May 2020

South Africa, '6th National Report on the Convention on Biological Diversity' (2018) The Clearing-House Mechanism of the Convention on Biological Diversity <https://chm.cbd.int/pdf/documents/nationalReport6/241240/2> accessed 20 July 2020

INTERNATIONAL ORGANISATIONS DOCUMENTS

Assemblies of the Member States of WIPO, 'Agenda Item 20, Report on the Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore (IGC) Decision' (30 September–9 October 2019) Fifty-Ninth Series of Meetings

CBD, 'Access to Genetic Resources and Benefit-Sharing under the Auspices of the Convention on Biological Diversity' <www.cbd.int/forest/doc/abs-policy-brief-en.pdf>

CBD, 'List of Parties' (*CBD*) <www.cbd.int/information/parties.shtml> accessed 1 May 2020

CBD, 'Parties to the Nagoya Protocol' (*CBD*) <www.cbd.int/abs/nagoya-protocol/signatories/> accessed 9 June 2020

CBD Access and Benefit-sharing Clearing-House, 'Interim National Reports on the Implementation of the Nagoya Protocol' (*Access and Benefit-sharing Clearing-House*) <https://absch.cbd.int/search/nationalRecords?schema=absNationalReport> accessed 9 June 2020

CBD Capacity-Building Workshop on Networking and Information Exchange for National Focal Points and Indigenous and Local Communities in the Latin America and the Caribbean Region, 'Who Are Local Communities?' (Quito 2006) UNEP/CBD/WS-CB/LAC/1/INF/5

CBD SBI Recommendation 2/2, 'Assessment and Review of the Effectiveness of the Nagoya Protocol' (Montreal 2018) CBD/SBI/REC/2/2

CBD WG8J 4, 'Development of Elements of Sui Generis Systems for the Protection of Traditional Knowledge, Innovations and Practices' Note by the Executive Secretary (Granada 2005) UNEP/CBD/WG8J/4/7

CBD WG8J 10, 'Report of the Ad Hoc Open-Ended Inter-Sessional Working Group on Article 8(j) and Related Provisions of the Convention on Biological Diversity on Its Tenth Meeting' (Montreal 2017) CBD/WG8J/10/11

CBD WG8J 11 Recommendation 11/1, 'In-Depth Dialogue on the Thematic Areas and Other Cross-Cutting Issues' (Montreal 2019) CBD/WG8J/REC/11/1

CBD WG8J 11 Recommendation 11/2, 'Development of a New Programme of Work and Institutional Arrangements on Article 8(j) and Other Provisions of the Convention Related to Indigenous Peoples and Local Communities' (Montreal 2019) CBD/WG8J/REC/11/2

CBD WGABS 8, 'Report of the Meeting of the Group of Technical and Legal Experts on Traditional Knowledge Associated with Genetic Resources in the Context of the International Regime on Access and Benefit-Sharing' (Montreal 2009) UNEP/CBD/WG-ABS/8/2

CESCR, 'General Comment No. 17 (2005) The Right of Everyone to Benefit from the Protection of the Moral and Material Interests Resulting from Any Scientific, Literary or Artistic Production of Which He or She Is the Author (Article 15, Paragraph 1 (c), of the Covenant)' (12 January 2006) E/C.12/GC/1712

CESCR, 'General Comment No. 21 Right of Everyone to Take Part in Cultural Life (Art. 15, Para. 1 (a), of the International Covenant on Economic, Social and Cultural Rights)' (21 December 2009) UN Doc. E/C.12/GC/21

Commission on Human Rights, 'Human Rights and Indigenous Issues Report of the Special Rapporteur on the Situation of Human Rights and Fundamental Freedoms of Indigenous People, Rodolfo Stavenhagen' Addendum, Mission to South Africa (15 December 2005) E/CN.4/2006/78/Add.2

Committee on Rights of Indigenous Peoples (2006 - 2012), 'Rights of Indigenous Peoples' in International Law Association Report of the Seventy-Fifth Conference (Sofia 2012) (International Law Association, London 2012) <http://www.ila-hq.org/index.php/committees>

COP 5 Decision V/16, 'Article 8(j) and Related Provisions' (Nairobi 2000) UNEP/CBD/COP/5/23

COP 6 Decision VI/24.A, 'Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of Their Utilization' (The Hague 2002) UNEP/CBD/COP/6/20

COP 7 Decision VII/16.F, 'Akwé: Kon Voluntary Guidelines for the Conduct of Cultural, Environmental and Social Impact Assessment Regarding Developments Proposed to Take Place on, or Which Are Likely to Impact on, Sacred Sites and on Lands and Waters Traditionally Occupied or Used by Indigenous and Local Communities' (Kuala Lumpur 2004) UNEP/CBD/COP/DEC/VII/16

COP 10 Decision X/2, 'The Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets' (Nagoya 2010) UNEP/CBD/COP/DEC/X/2

COP 10 Decision X/41, 'Elements of Sui Generis Systems for the Protection of Traditional Knowledge' (Nagoya 2010) UNEP/CBD/COP/DEC/X/41

COP 12 Decision XII/12, 'Article 8(j) and Related Provisions' (Pyeongchang 2014) UNEP/CBD/COP/DEC/XII/12

COP 12 Decision XII/12 B, 'Article 8(j) and Related Provisions' (Pyeongchang 2014) UNEP/CBD/COP/DEC/XII/12

COP 12 Decision XII/12 E, ‘Article 8(j) and Related Provisions’ (Pyeongchang 2012) UNEP/CBD/COP/DEC/XII/12

COP 13 Decision 13/1, ‘Progress in the Implementation of the Convention and the Strategic Plan for Biodiversity 2011-2020 and towards the Achievement of the Aichi Biodiversity Targets’ (Cancun 2016) CBD/COP/DEC/XIII/1

COP 13 Decision XIII/18, ‘Article 8(j) and Related Provisions Mo’otz Kuxtal Voluntary Guidelines 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’ (Cancun 2017) CBD/COP/DEC/XIII/18

COP 14 Decision 14/12, ‘The Rutzolijirisaxik Voluntary Guidelines for the Repatriation of Traditional Knowledge of Indigenous Peoples and Local Communities Relevant for the Conservation and Sustainable Use of Biological Diversity’ (2018 Sharm El-Sheikh) CBD/COP/DEC/14/12

COP 14 Decision 14/13, ‘Glossary of Relevant Key Terms and Concepts within the Context of Article 8(j) and Related Provisions’ (Sharm El-Sheikh 2018) CBD/COP/DEC/14/13

COP 14 Decision 14/29, ‘Review Mechanisms’ (Sharm El-Sheikh 2018) CBD/COP/DEC/14/29

General Assembly, ‘61/295. United Nations Declaration on the Rights of Indigenous Peoples’ (13 September 2007) UN Doc A/RES/61/295

‘Guiding Principles on Business and Human Rights: Implementing the United Nations “Protect, Respect and Remedy” Framework’ (United Nations 2011) HR/PUB/11/04

HRC, ‘CCPR General Comment No. 23: Article 27 (Rights of Minorities)’ (8 April 1994) CCPR/C/21/Rev.1/Add.5

HRC, ‘Human Rights and Transnational Corporations and Other Business Enterprises’ (6 July 2011) Un Doc A/HRC/RES/17/4

HRC, ‘Report of the Special Rapporteur on the Rights of Indigenous Peoples, James Anaya Extractive Industries and Indigenous Peoples’ (1 July 2013) A/HRC/24/41

HRC, ‘Report of the Special Rapporteur on the Situation of Human Rights and Fundamental Freedoms of Indigenous People, James Anaya’ (19 July 2010) A/HRC/15/37

HRC, ‘Report of the Special Rapporteur on the rights of indigenous peoples, James Anaya Extractive industries operating within or near indigenous territories’ (11 July 2011) A/HRC/18/35

Martinez Cobo J, ‘Study on the Problem of Discrimination against Indigenous Populations’ (1986) Un Doc E/CN.4/Sub.2/1986/7/Add.4

Morgera E, ‘Study on Experiences Gained with the Development and Implementation of the Nagoya Protocol and Other Multilateral Mechanisms and the Potential Relevance of Ongoing Work Undertaken by Other Processes, Including Case Studies’ (Montreal 2016) UNEP/CBD/ABS/A10/EM/2016/1/2

NP Compliance Committee, ‘Report of the Compliance Committee under the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from Their Utilization on the Work of Its Second Meeting’ (2018) CBD/ABS/CC/2/4

NP MOP 1 Decision 1/4, ‘Cooperative Procedures and Institutional Mechanisms to Promote Compliance with the Nagoya Protocol and to Address Cases of Non-Compliance’ (Pyeongchang 2014) UNEP/CBD/NP/COP-MOP/DEC/1/4

NP MOP 1 Decision 3/1, ‘Monitoring and Reporting (Article 29)’ (Pyeongchang 2014) UNEP/CBD/NP/COP-MOP/DEC/1/3

NP MOP 1 Decision 8/1, ‘Measures to Assist in Capacity-Building and Capacity Development (Article 22)’ (Pyeongchang 2014) UNEP/CBD/NP/COP-MOP/DEC/1/8

NP MOP 1 Decision 9/1, ‘Measures to Raise Awareness of the Importance of Genetic Resources and Associated Traditional Knowledge (Article 21)’ (Pyeongchang 2014) UNEP/CBD/NP/COP-MOP/DEC/1/9

NP MOP 3 Decision 3/1, ‘Assessment and Review of the Effectiveness of the Protocol (Article 31)’ (Sharm El-Sheikh 2018) CBD/NP/MOP/DEC/3/1

UN Permanent Forum on Indigenous Issues, ‘Fact Sheet: Who Are Indigenous Peoples?’ (2006)

UN Conference on Trade and Development, ‘Systems and National Experiences for Protecting Traditional Knowledge, Innovations and Practices’ (22 August 2000) UN Doc TD/B/COM.1/EM.13/2

UN Human Rights Council, ‘Resolution 2006/2. Working Group of the Commission on Human Rights to Elaborate a Draft Declaration in Accordance with Paragraph 5 of the General Assembly Resolution 49/214 of 23 December 1994’ (29 June 2006)

UN, ‘Report of the World Summit on Sustainable Development’ (26 August-4 September 2002 Johannesburg) A/CONF.199/20

UN Sub-Commission on the Promotion and Protection of Human Rights, ‘Study on the Protection of the Cultural and Intellectual Property of Indigenous Peoples, by Erica-Irene Daes, Special Rapporteur of the Sub-Commission on Prevention of Discrimination and Protection of Minorities and Chairperson of the Working Group on Indigenous Populations’ (28 July 1993) UN Doc E/CN.4/Sub.2/1993/28

UNEP and EDO NSW, ‘Community Protocols for Environmental Sustainability: A Guide for Policymaker’ (2013) UNEP, Nairobi and EDO NSW, Sydney

UNPFII, ‘Report on the Eighteenth Session’ (22 April–3 May 2019) UN Doc E/2019/43-E/C.19/2019/10

UNPFII, ‘Study on the Treatment of Traditional Knowledge in the Framework of the United Nations Declaration on the Rights of Indigenous Peoples and the Post-2015 Development Agenda’ Note by the Secretariat (2 February 2015) E/C.19/2015/4

UNPFII, ‘Traditional Knowledge: Generation, Transmission and Protection’ Note by the Secretariat (6 February 2019) E/C.19/2019/5

WIPO, ‘Documenting Traditional Knowledge – A Toolkit’ (WIPO 2007)

WIPO IGC 3, ‘Elements of a Sui Generis System for the Protection of Traditional Knowledge’ Prepared by the Secretariat (29 March 2002) WIPO/GRTKF/IC/3/8

WIPO IGC 40, ‘The Protection of Traditional Knowledge: Draft Articles’ Document prepared by the Secretariat (19 June 2019) WIPO/GRTKF/IC/40/18

WIPO, ‘The WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore’ (WIPO 2015) Background Brief No. 2

WIPO, ‘Customary Law and Traditional Knowledge’ (2016) Background Brief No. 7

WIPO, ‘Intellectual Property Needs and Expectations of Traditional Knowledge Holders WIPO Report on Fact-Finding Missions on Intellectual Property and Traditional Knowledge (1998-1999)’ (WIPO 2001)

World Bank, ‘Implementation of Operational Directive 4.20 on Indigenous Peoples: An Evaluation of Results’ (2003)

WTO, ‘The Protection of Traditional Knowledge and Folklore, Summary of Issues Raised and Points Made’ note by the secretariat (9 March 2006) IP/C/W/370/Rev.1

CASES AND COMMUNICATIONS

African Commission on Human and Peoples’ Rights v Republic of Kenya [2017] African Court on Human and Peoples Rights App. No. 006/2012

Ángela Poma Poma v Peru [2009] HRC UN Doc CCPR/C/95/D/1457/2006

Apirana Mahuika et al v New Zealand [2000] HRC U.N. Doc. CCPR/C/70/D/547/1993

Baleni and Others v Minister of Mineral Resources and Others [2018] High Court of the Republic of South Africa, Gauteng Division, Pretoria 73768/2016

Centre for Minority Rights Development (Kenya) and Minority Rights Group International on behalf of Endorois Welfare Council v Kenya [2010] African Commission on Human and People’s Rights 276/2003

Chief Bernard Ominayak and Lubicon Lake Band v Canada [1990] HRC CCPR/C/38/D/167/1984

Jouni E Länsman et al v Finland [1995] HRC U.N. Doc. CCPR/C/58/D/671/1995

Mohamed Ali Baadi and Others v Attorney General [2018] High Court of Kenya No. 22 of 2012

Saramaka People v Suriname [2007] Inter-American Court of Human Rights Series C No. 172

Vedanta Resources PLC and another (Appellants) v Lungowe and others (Respondents) [2019] UKSC 20

BIBLIOGRAPHY

Books

Bavikatte K and Jonas H (eds), *Bio-Cultural Community Protocols a Community Approach to Ensuring the Integrity of Environmental Law and Policy* (Natural Justice 2009)

Borrini-Feyerabend G and others, *Governance of Protected Areas: From Understanding to Action* (IUCN 2013)

Curci J, *The Protection of Biodiversity and Traditional Knowledge in International Law of Intellectual Property* (Cambridge University Press 2010)

Gilbert J, *Land Grabbing, Investments & Indigenous Peoples' Rights to Land and Natural Resources: Case Studies and Legal Analysis* (IWGIA 2017)

Glowka L, Burhenne-Guilmin F and Synge H, *A Guide to the Convention on Biological Diversity* (IUCN Gland and Cambridge 1994)

Greiber T and others, *An Explanatory Guide to the Nagoya Protocol on Access and Benefit-Sharing* (IUCN, Gland, Switzerland 2012)

Hansen SA and others, *Traditional Knowledge and Intellectual Property: A Handbook on Issues and Options for Traditional Knowledge Holders in Protecting Their Intellectual Property and Maintaining Biological Diversity* (American Association for the Advancement of Science 2003)

Heasman L, *The Corporate Responsibility to Protect Human Rights: The Evolution from Voluntarism to Mandatory Human Rights Due Diligence* (Helsinki: [University of Helsinki] 2018)

ILO, *ILO Convention on Indigenous and Tribal Peoples, 1989 (No. 169): A Manual* (ILO 2003)

Kiene T, *The Legal Protection of Traditional Knowledge in the Pharmaceutical Field: An Intercultural Problem on the International Agenda* (Waxmann 2011)

Morgera E, Tsioumani E and Buck M, *Unraveling the Nagoya Protocol: A Commentary on the Nagoya Protocol on Access and Benefit-Sharing to the Convention on Biological Diversity* (Brill 2014)

Parks L, *Benefit-Sharing in Environmental Governance: Local Experiences of a Global Concept* (Routledge 2020)

Posey DA and Dutfield G, *Beyond Intellectual Property: Toward Traditional Resource Rights for Indigenous Peoples and Local Communities* (International Development Research Centre 1996)

Reid W and others (eds), *Biodiversity Prospecting: Using Genetic Resources for Sustainable Development* (World Resources Institute (WRI), USA 1993)

Robinson D, *Confronting Biopiracy: Challenges, Cases and International Debates* (1st edn, Taylor & Francis Group 2010)

Ruggie J, *Just Business: Multinational Corporations and Human Rights* (First edition, W W Norton & Company 2013)

Shiva V, *Protect or Plunder? Understanding Intellectual Property Rights* (Zed Books 2001)

Swiderska K (ed), *Biodiversity and Culture: Exploring Community Protocols, Rights and Consent* (IIED 2012)

Taubman A, Wager H and Watal J, *A Handbook on the WTO TRIPS Agreement* (Cambridge University Press 2012)

WHO (ed), *WHO Traditional Medicine Strategy. 2014-2023* (WHO 2013)

WIPO, *Intellectual Property and Genetic Resources, Traditional Knowledge and Traditional Cultural Expressions: Overview.* (WIPO 2015)

WIPO, WHO and WTO (eds), *Promoting Access to Medical Technologies and Innovation: Intersections between Public Health, Intellectual Property, and Trade* (WHO: WIPO: WTO 2013)

Wong T and Dutfield G (eds), *Intellectual Property and Human Development: Current Trends and Future Scenarios* (Cambridge University Press 2010)

Articles in Books

Candeira AL and Silvestri L, ‘Challenges in the Implementation of the Nagoya Protocol from the Perspective of a Member State of the European Union: The Case of Spain’ in Elisa Morgera, Matthias Buck and Elsa Tsioumani (eds), *The 2010 Nagoya Protocol on Access and Benefit-sharing in Perspective* (Brill | Nijhoff 2013)

Chakma T and Martemjen, ‘India’ in Dwayne Mamo (ed), *The Indigenous World 2020* (IWGIA 2020)

Cocchiaro G and others, 'Consideration of a Legal "Trust" Model for the Kukula Healers' TK Commons in South Africa' in Jeremy De Beer and others (eds), *Innovation & intellectual property: collaborative dynamics in Africa* (UCT Press in association with the IP Unit, Faculty of Law, University of Cape Town and Deutsche Gesellschaft für Internationale Zusammenarbeit 2014)

de Koning M, 'Biodiversity Prospecting and the Equitable Remuneration of Ethnobiological Knowledge; Reconciling Industry and Indigenous Interest' in Michael Blakeney (ed), *Intellectual property aspects of ethnobiology* (Sweet & Maxwell 1999)

Eisner T, 'Chemical Prospecting: A Proposal for Action' in F Herbert Bormann and Stephen R Kellert (eds), *Ecology, economics, ethics: the broken circle* (Yale University Press 1991)

Gibbson J, 'The UN Declaration on the Rights of Indigenous Peoples' in Stephen Allen and Alexandra Xanthaki (eds), *Reflections on the UN Declaration on the Rights of Indigenous Peoples: Reflections on the UN Declaration on the Rights of Indigenous Peoples* (Bloomsbury Publishing 2011)

Göcke K, 'Indigenous Peoples in International Law' in Brigitta Hauser-Schäublin (ed), *Adat and Indigeneity in Indonesia* (Göttingen University Press 2017)

Jansen L, 'South Africa' in David Berger (ed), *The Indigenous World 2019* (IWGIA 2019)

Köhler-Rollefson I, 'Biocultural Community Protocols: Tools for Securing the Assets of Livestock Keepers' in Krystyna Swiderska (ed), *Biodiversity and culture: exploring community protocols, rights and consent* (IIED 2012)

Oliva MJ, 'Implications of the Nagoya Protocol' in Elisa Morgera, Matthias Buck and Elsa Tsioumani (eds), *The 2010 Nagoya Protocol on Access and Benefit-sharing in perspective: implications for international law and implementation challenges* (M Nijhoff Pub 2013)

Sapriina A and Chakma P, 'India' in David Nathaniel Berger (ed), *The Indigenous World 2019* (IWGIA 2019)

Schuler P, 'Biopiracy and Commercialization of Ethnobotanical Knowledge' in J Michael Finger and Philip Schuler (eds), *Poor People's Knowledge: Promoting Intellectual Property in Developing Countries* (Washington, DC: World Bank 2003)

Stoll T, 'Intellectual Property and Technologies' in Marc Weller and Jessie Hohmann (eds), *The UN Declaration on the Rights of Indigenous Peoples: a commentary* (First edition, Oxford University Press 2018)

Vars LS, 'Sápmi' in Dwayne Mamo (ed), *Indigenous World 2020* (IWGIA 2020)

Articles

Bavikatte K and Robinson D, 'Towards a People's History of the Law: Biocultural Jurisprudence and the Nagoya Protocol on Access and Benefit Sharing' (2011) 7 Law, Environment and Development Journal 35

Bavikatte KS and Bennett T, ‘Community Stewardship: The Foundation of Biocultural Rights’ (2015) 6 Journal of Human Rights and the Environment 7

Bavikatte KS, Robinson D and Oliva MJ, ‘Biocultural Community Protocols: Dialogues on the Space Within’ (2015) 1 IK: Other Ways of Knowing 1

Bavikatte KS and Tvedt MW, ‘Beyond the Thumbrule Approach: Regulatory Innovations for Bioprospecting in India’ (2015) 11 Law, Environment and Development Journal 1

Becker C. Dustin and Ostrom Elinor, ‘Human Ecology and Resource Sustainability: The Importance of Institutional Diversity’ (1995) 26 Annual review of ecology and systematics 113

Bostyn SJR, ‘A European Perspective on the Ideal Scope of Protection and the Disclosure Requirement for Biotechnological Inventions in a Harmonised Patent System: The Quest for the Holy Grail?’ (2005) 5 The Journal of World Intellectual Property 1013

Dutfield G and others, ‘Benefit Sharing and Traditional Knowledge: Unsolved Dilemmas for Implementation. The Challenge of Attribution and Origin: Traditional Knowledge and Access and Benefit Sharing’ (2020) Voices for BioJustice, Policy Brief

Firestone L, ‘You Say Yes, I Say No; Defining Community Prior Informed Consent under the Convention on Biological Diversity’ (2003) 16 Georgetown International Environmental Law Review 171

Halewood M, ‘Indigenous and Local Knowledge in International Law: A Preface to Sui Generis Intellectual Property Protection’ (1999) 44 McGill Law Journal 953

Jayaraman KS, ‘US Patent Office Withdraws Patent on Indian Herb’ (1997) 389 Nature 6

Kamau EC, Fedder B and Winter G, ‘The Nagoya Protocol on Access to Genetic Resources and Benefit Sharing: What Is New and What Are the Implications for Provider and User Countries and the Scientific Community?’ 6 Law, Environment and Development Journal 246

Mander M and others, ‘Economics of the Traditional Medicine Trade in South Africa Care Delivery’ (2007) 2007 South African Health Review 189

McCorquodale R, ‘Corporate Social Responsibility and International Human Rights Law’ (2009) 87 Journal of Business Ethics 385

Merwe A van der, ‘The Old and the New: A Concise Overview of the Intellectual Property Laws Amendment Act’ (2014) 2014 De Rebus, Law Society of South Africa 28

Moody O, ‘Addressing Biopiracy through an Access and Benefit Sharing Regime-Complex: In Search of Effective Protection for Traditional Knowledge Associated with Genetic Resources’ (2016) 16 Asper Review of International Business & Trade Law 231

Newman D and Cragg G, ‘Natural Products as Sources of New Drugs over the Last 25 Years’ (2007) 70 Journal of Natural Products 461

Nordling L, ‘Rooibos Tea Profits Will Be Shared with Indigenous Communities in Landmark Agreement’ (2019) 575 Nature 19

O’Connor B, ‘Protecting Traditional Knowledge: An Overview of a Developing Area of Intellectual Property Law’ (2003) 6 Journal of World Intellectual Property 677

Rabitz F, ‘Biopiracy after the Nagoya Protocol: Problem Structure, Regime Design and Implementation Challenges’ (2015) 9 Brazilian Political Science Review 30

Sandlos J and Keeling A, ‘Aboriginal Communities, Traditional Knowledge, and the Environmental Legacies of Extractive Development in Canada’ (2016) 3 The Extractive Industries and Society 278

Schroeder D and others, ‘The Rooibos Benefit Sharing Agreement–Breaking New Ground with Respect, Honesty, Fairness, and Care’ (2020) 29 Cambridge Quarterly of Healthcare Ethics 285

Semenya SS and Maroyi A, ‘Ethnobotanical Study of Curative Plants Used by Traditional Healers to Treat Rhinitis in the Limpopo Province, South Africa’ (2018) 18 African Health Sciences 1076

Svoboda GH, Neuss N and Gorman M, ‘Alkaloids of Vinca Rosea Linn. (Catharanthus Roseus G. Don.) V. Preparation and Characterization of Alkaloids’ (1959) 48 Journal of the American Pharmaceutical Association 659

Tobin B, ‘Bridging the Nagoya Compliance Gap: The Fundamental Role of Customary Law in Protection of Indigenous Peoples’ Resource and Knowledge Rights’’ (2013) 9 Law, Environment and Development Journal 142

Tsioumani E, ‘Exploring Benefit-Sharing from the Lab to the Land (Part I): Agricultural Research and Development in the Context of Conservation and Sustainable Use’ (2014) Edinburgh School of Law Research Paper No. 2014/44, BENELEX Working Paper 4

Tsioumani E, ‘CBD: The UN Biodiversity Conference’ (2017) 47 Environmental Policy and Law 58

Weeraworawit W, ‘Formulating an International Legal Protection for Genetic Resources, Traditional Knowledge and Folklore: Challenges for the Intellectual Property System’ (2003) 11 Cardozo Journal of International and Comparative Law 769

Wendland W, ‘Protecting Indigenous Knowledge: A Personal Perspective on International Negotiations at WIPO’ [2019] WIPO Magazine <www.wipo.int/wipo_magazine/en/2019/06/article_0004.html> accessed 3 July 2020

Whiteman G, ‘All My Relations: Understanding Perceptions of Justice and Conflict between Companies and Indigenous Peoples’ (2009) 30 Organization Studies 101

Wynberg R, ‘Hot Air over Hoodia’ (2010) Seedling October 22

Blogs and Websites

Department of Environment, Forestry and Fisheries Republic of South Africa, 'Bioprospecting Economy' (*Department of Environment, Forestry and Fisheries*) <www.environment.gov.za/projectsprogrammes/bioprospectingeconomy> accessed 30 July 2020

Dutta AP, 'Ban on Grazing Hits Raikas Community Hard' (*Down To Earth*, 7 June 2015) <www.downtoearth.org.in/coverage/ban-on-grazing-hits-raikas-community-hard-5748> accessed 3 May 2020

ILO, 'Ratifications of C169 - Indigenous and Tribal Peoples Convention, 1989 (No. 169)' (*ILO*)<www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:11300:0::NO:11300:P11300_INSTRUMENT_ID:312314:NO> accessed 1 July 2020

Indian National Biodiversity Authority, 'People's Biodiversity Register' (5 May 2020) <http://nbaindia.org/content/105/30/1/pbr.html> accessed 14 July 2020

IUCN, 'IUCN Director General's Statement on International Day of the World's Indigenous Peoples 2019' (*IUCN*, 9 August 2019) <www.iucn.org/news/secretariat/201908/iucn-director-generals-statement-international-day-worlds-indigenous-peoples-2019> accessed 29 April 2020

IWGIA, '476 Million Indigenous People' (*IWGIA*, 29 July 2017) <https://iwgia.org/en/indigenous-world.html> accessed 21 July 2020

IWGIA, 'Indigenous Peoples in South Africa' (*IWGIA*) <www.iwgia.org/en/south-africa> accessed 5 May 2020

Kukula Traditional Health Practitioners, 'Biocultural Protocol of the Kukula Traditional Health Practitioners Association' (2018) <https://naturaljustice.org/wp-content/uploads/2018/06/BCP-Kukula-Traditional-Health-Practitioners-Association-English.pdf> accessed 29 July 2020

Köhler-Rollefson I, 'Pastoralists and India's Biological Diversity Act' (*Livestock Futures*, 15 April 2018) <www.ilse-koehler-rollefson.com/?p=1091> accessed 4 May 2020

LAPSSET, 'What Is the LAPSSET Corridor Program?' (*LAPSSET*, 2020) <www.lapsset.go.ke/> accessed 30 April 2020

Lovells H, 'The Implications of the UK Supreme Court's Decision in Vedanta for the Management of Human Rights Risk in Overseas Operations and Supply Chains' (*University of Oxford, Faculty of Law*, 30 May 2019) <www.law.ox.ac.uk/business-law-blog/blog/2019/05/implications-uk-supreme-courts-decision-vedanta-management-human> accessed 2 July 2020

Morgera E, 'Reflections on 2016 UN Biodiversity Conference (Part II): Assessing the Mo'otz Kuxtal Guidelines on Benefit-Sharing from the Use of Traditional Knowledge' (*BeneLex Blog*, 1 March 2017) <https://benelexblog.wordpress.com/2017/03/01/reflections-on-2016-un-biodiversity-conference-part-ii-assessing-the-mootz-kuxtal-guidelines-on-benefit-sharing-from-the-use-of-traditional-knowledge/> accessed 23 May 2020

Natural Justice, ‘The Kukula Traditional Health Practitioners Association Release Their Updated Biocultural Community Protocol’ (*Natural Justice*, 5 July 2018) <https://naturaljustice.org/the-kukula-traditional-health-practitioners-association-release-their-updated-biocultural-community-protocol/> accessed 4 May 2020

Natural Justice, ‘The Rooibos Access and Benefit-Sharing Agreement’ (*Natural Justice*) <https://naturaljustice.org/the-rooibos-access-and-benefit-sharing-agreement/> accessed 25 June 2020

Raika Community, ‘Raika Bio-Cultural Protocol’ (2009) <www.bfn.de/fileadmin/ABS/documents/2009-Raika Community Protocol final.pdf> accessed 28 April 2020

Roelf W, ‘South African Parliament Endorses Report on Disputed Land Reform’ (*Reuters*, 4 December 2018) <www.reuters.com/article/us-safrica-land/south-african-parliament-endorses-report-on-disputed-land-reform-idUSKBN1O31WL> accessed 5 May 2020

Save Lamu, ‘The Lamu County Biocultural Community Protocol’ <https://naturaljustice.org/wp-content/uploads/2019/04/Lamu-County-BCP-2018.pdf> accessed 30 April 2020

Swiderska K, ‘Consent and Conservation: Getting the Most from Community Protocol’ (IIED 2012) <http://pubs.iied.org/17137IIED> accessed 28 July 2020

The World Bank, ‘Indigenous Peoples’ <www.worldbank.org/en/topic/indigenouspeoples> accessed 21 July 2020

UNTC, ‘Multilateral Treaties Deposited with the Secretary-General, Chapter XXVII Environment, 8.b 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://treaties.un.org/Pages/Treaties.aspx?id=27&subid=A&clang=_en> accessed 22 June 2020

UN Human Rights Office of the High Commissioner, ‘Jurisprudence’ <https://juris.ohchr.org/search/results> accessed 1 May 2020

UN Department of Economic and Social Affairs Indigenous Peoples, ‘United Nations Declaration on the Rights of Indigenous Peoples’ <www.un.org/development/desa/Indigenouspeoples/declaration-on-the-rights-of-Indigenous-peoples.html> accessed 29 April 2020

UN Department of Economic and Social Affairs Indigenous Peoples, ‘United Nations Declaration on the Rights of Indigenous Peoples’ <www.un.org/development/desa/indigenouspeoples/declaration-on-the-rights-of-indigenous-peoples.html> accessed 1 May 2020

UNTC, ‘Multilateral Treaties Deposited with the Secretary-General, Chapter XXVII, 8. Convention on Biological Diversity’ <https://treaties.un.org/pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-8&chapter=27> accessed 22 June 2020

WIPO, ‘About the Traditional Knowledge Digital Library’ <www.wipo.int/meetings/en/2011/wipo_tkdl_del_11/about_tkdl.html> accessed 16 June 2020

WIPO, ‘Member States’ (*WIPO*) <www.wipo.int/members/en/> accessed 3 July 2020

WIPO, ‘Traditional Cultural Expressions’ (*WIPO*) <www.wipo.int/tk/en/folklore> accessed 29 April 2020

WIPO, ‘Traditional Knowledge and Intellectual Property – Background Brief’ (*WIPO*) <www.wipo.int/pressroom/en/briefs/tk_ip.html> accessed 2 May 2020

WIPO, ‘Traditional Knowledge’ (*WIPO*) <www.wipo.int/tk/en/> accessed 29 April 2020

WTO, ‘Intellectual Property: Protection and Enforcement’ (*WTO*) <www.wto.org/english/thewto_e/whatis_e/tif_e/agrm7_e.htm> accessed 23 July 2020

Other

Decision of the Technical Board of Appeal 332 [2005] European Patent Office T 0416/01-3.3.2

Hari Har P Cohly and Suman K Das, ‘Use of Turmeric in Wound Healing’ US5401504, United States Patent and Trademark Office, 28 March 1995

International Expert Group on Biotechnology, Innovation and Intellectual Property, ‘Toward a New Era of Intellectual Property: From Confrontation to Negotiation’ (2008)

Makagon J, ‘Community Protocols Toolbox’ (Natural Justice 2016)

Shrumm H and Jonas H, ‘Biocultural Community Protocols: A Toolkit for Community Facilitators’ (Natural Justice 2012)

Sibuye R and others, ‘The Bushbuckridge BCP: Traditional Healers Organise for ABS in South Africa’ in PLA65: Participatory Learning and Action: Biodiversity and Culture (IIED 2012)

ABBREVIATIONS

CBD	Convention on Biological Diversity
CBD COP	Conference of the Parties to the Convention on Biological Diversity
HRC	Human Rights Council
ICESCR	International Covenant on Economic, Social and Cultural Rights
ICCPR	International Covenant on Civil and Political Rights
IGC	Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore
IIED	International Institute for Environment and Development
ILO	International Labour Organisation
ILO CONVENTION NO. 169	Convention (No. 169) concerning indigenous and tribal peoples in independent countries
IWGIA	International Work Group for Indigenous Affairs
LAPSSET	Lamu Port South Sudan Ethiopia Transport Corridor
NGO	Non-governmental organisation
NP MOP	Meeting of the Parties to the Nagoya Protocol
TRIPS Agreement	Agreement on Trade-Related Aspects of Intellectual Property Rights
UN	United Nations
UNPFII	United Nations Permanent Forum on Indigenous Issues
US	United States of America
UNTC	United Nations Treaty Series
WGABS	CBD Ad Hoc Open-Ended Working Group on Access and Benefit-Sharing
WG8J	Working Group on Article 8(j)
WHO	World Health Organization
WTO	World Trade Organization
WIPO	World International Property Organization

1. INTRODUCTION

Nobel Prize winner Elinor Ostrom verified already in 1995 that communities living with and around biodiversity are better at conserving it compared to private entities and state institutions.[1] Indigenous peoples and local communities' traditional knowledge is essential for the protection of global biodiversity as 80 % of the global biodiversity lies within land managed by indigenous peoples.[2] Traditional knowledge is knowledge, practices, and innovations held by indigenous and local communities that have been passed down from generation to generation about the use of the local biodiversity. It can, for example, be knowledge regarding plants, animals, technologies and means of enhancing health and welfare.[3]

Traditional knowledge has been misappropriated since the era of Christopher Columbus and the belief that traditional knowledge was part of the common heritage of humankind and therefore terra nullis.[4] Today, traditional knowledge is misappropriated when corporate entities monopolise and patent the knowledge, without the communities' approval and without sharing benefits arising from the utilisation of the knowledge.[5] Traditional knowledge is also lost when infrastructure and extractive industries disrupt the environment, which leads to land grabbing, resettlement of indigenous communities, and loss of natural resources.[6]

Traditional knowledge is protected under international law as a human right to culture and as a right to control and maintain knowledge about natural resources, medicine and

[1] Becker C. Dustin and Ostrom Elinor, 'Human Ecology and Resource Sustainability: The Importance of Institutional Diversity' (1995) 26 Annual review of ecology and systematics 113, 124–128.
[2] Grazia Borrini-Feyerabend and others, *Governance of Protected Areas: From Understanding to Action* (IUCN 2013) 48; IUCN, 'IUCN Director General's Statement on International Day of the World's Indigenous Peoples 2019' (*IUCN*, 9 August 2019) <www.iucn.org/news/secretariat/201908/iucn-director-generals-statement-international-day-worlds-indigenous-peoples-2019> accessed 29 April 2020.
[3] Bernard O'Connor, 'Protecting Traditional Knowledge: An Overview of a Developing Area of Intellectual Property Law' (2003) 6 Journal of World Intellectual Property 677, 678.
[4] Oluwatobiloba Moody, 'Addressing Biopiracy through an Access and Benefit Sharing Regime-Complex: In Search of Effective Protection for Traditional Knowledge Associated with Genetic Resources' (2016) 16 Asper Review of International Business & Trade Law 231, 257–258.
[5] Daniel Robinson, *Confronting Biopiracy: Challenges, Cases and International Debates* (1st edn, Taylor & Francis Group 2010) 14.
[6] Jérémie Gilbert, *Land Grabbing, Investments & Indigenous Peoples' Rights to Land and Natural Resources: Case Studies and Legal Analysis* (IWGIA 2017) 13–14, 17.

technologies. The Convention on Biological Diversity, the Nagoya Protocol, the UN Declaration on the Rights of Indigenous Peoples, the ILO Convention on Indigenous and Tribal Peoples and the International Human Rights Covenants all have provisions relating to the protection of traditional knowledge. Under the Convention on Biological Diversity and the Nagoya Protocol, traditional knowledge is protected by access and benefit-sharing procedures.[7] Thus, indigenous peoples have a right to consent to their knowledge being used, and benefits that arise from the commercial use of traditional knowledge should be shared fairly and equitably with the community whose knowledge is being utilised.[8] The Nagoya Protocol further holds an obligation to consider community protocols, in accordance with domestic laws, when implementing state obligations concerning access and benefit-sharing. The Conference of the Parties to the Convention on Biological Diversity has also supported the use of community protocols.

Community protocols are written documents where indigenous communities may state their core cultural, spiritual and ecological values as well as customary laws and traditional knowledge. The document can state how the community consents to their knowledge being used and their views on benefit-sharing. Community protocols can be used in response to threats posed by development projects, research and conservation.[9] Several indigenous communities have developed community protocols to protect their traditional knowledge.[10] However, as it is only the Nagoya Protocol that directly refers to community protocols and only as an obligation to consider them in accordance with domestic law, the regulation of

[7] Convention on Biological Diversity (adopted 5 June 1992, entered into force 29 December 1993) 1760 UNTS 79 (CBD) art 8(j); 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 (opened for signature 2 February 2011, entered into force 12 October 2014) UNEP/CBD/COP/DEC/X/1 (Nagoya Protocol) art 5 and 7.

[8] CBD Working Group on Article 8(j) (CBD WG8J) 'Development of Elements of Sui Generis Systems for the Protection of Traditional Knowledge, Innovations and Practices' Note by the Executive Secretary (Granada 2005) UNEP/CBD/WG8J/4/7 [42.g].

[9] Conference of the Parties to the CBD (COP) 'Article 8(j) and Related Provisions Mo'otz Kuxtal Voluntary Guidelines 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' (Cancun 2017) CBD/COP/DEC/XIII/18 [19]; Kabir Bavikatte and Harry Jonas (eds), *Bio-Cultural Community Protocols a Community Approach to Ensuring the Integrity of Environmental Law and Policy* (Natural Justice 2009) 9.

[10] Holly Shrumm and Harry Jonas, 'Biocultural Community Protocols: A Toolkit for Community Facilitators' (Natural Justice 2012) 10.

community protocols, and their ability to protect traditional knowledge, is unclear and depends on the support of community protocols at both the national and international level.

The aim of this study is, therefore, to examine the protection of traditional knowledge by using community protocols, by analysing how community protocols are regulated and supported at the local, national and international level.

Community protocols and traditional knowledge have previously been studied in conjunction with access and benefit-sharing and how they can be valuable when engaging with the community,[11] and in what way community protocol can be used by indigenous communities to challenge being excluded from the global environmental governance system.[12] They have also been reviewed together with the role of customary laws in the international legal framework and compliance mechanisms under the Nagoya Protocol.[13] Community protocols have been seen as "one of the most effective tools for securing effective [traditional knowledge] protection" as they can bridge customary, national and international law, leading to community protocol becoming a useful aid in the regulation and protection of traditional knowledge. However, it depends on how they are used by indigenous peoples and if they are respected and supported under national and international law.[14] The thesis continues this thought and focuses on if and how community protocols are supported and regulated at the national and international level.

This thesis consists of six chapters. After the first introductory chapter, the second chapter looks at central concepts and definitions. Firstly, the terms indigenous peoples and traditional knowledge is defined as understood under international law. Secondly, to convey

[11] Krystyna Swiderska (ed), *Biodiversity and Culture: Exploring Community Protocols, Rights and Consent* (IIED 2012); Bavikatte and Jonas (n 9); Kabir Sanjay Bavikatte, Daniel Robinson and Maria Julia Oliva, 'Biocultural Community Protocols: Dialogues on the Space Within' (2015) 1 IK: Other Ways of Knowing 1; Kabir Bavikatte and Daniel Robinson, 'Towards a People's History of the Law: Biocultural Jurisprudence and the Nagoya Protocol on Access and Benefit Sharing' 7 Law, Environment and Development Journal 35.

[12] Natalia Aguilar Delgado, 'Community Protocols as Tools for Resisting Exclusion in Global Environmental Governance' (2016) 56 Revista de Administracão de Empresas 395.

[13] Brendan Tobin, 'Bridging the Nagoya Compliance Gap: The Fundamental Role of Customary Law in Protection of Indigenous Peoples' Resource and Knowledge Rights'' (2013) 9 Law, Environment and Development Journal 142.

[14] Tobin (n 13), 158-160; UNEP and EDO NSW, 'Community Protocols for Environmental Sustainability: A Guide for Policymaker' (2013) UNEP, Nairobi and EDO NSW, Sydney 37.

what traditional knowledge needs protection from misappropriation and threats imposed to the environment caused by the extractive and infrastructure industry are examined.

The third chapter looks at the international legal framework for the protection of traditional knowledge associated with genetic resources. Traditional knowledge associated with genetic resources refers to knowledge and practises regarding genetic resources, compared to traditional knowledge that concern cultural expressions, such as music and literature. Cultural expressions will not be regarded in this thesis. The chapter examines the regulation of traditional knowledge under the Convention on Biological Diversity and its Nagoya Protocol, the ILO Convention on Indigenous and Tribal Peoples, the UN Declaration on the Rights of Indigenous Peoples, the International Covenant on Economic, Social and Cultural Rights, and the International Covenant on Civil and Political Rights. The shortcomings of existing intellectual property laws with regard to including traditional knowledge are also addressed, seen from the perspective of the Agreement on Trade-Related Aspects of Intellectual Property Rights and the World Intellectual Property Organization. As corporation use and benefit from traditional knowledge, the UN Guiding Principles on Businesses and Human Rights are also discussed in this section, setting out corporate responsibilities. While it is only the Nagoya Protocol that mentions community protocols the other instruments are examined to provide an understanding for how they protect traditional knowledge and if community protocols can respond to the obligations laid out in these instruments.

Chapter four defines community protocols and reviews how they are regulated and supported under national and international law. Section 4.1 defines community protocols. Section 4.2 examines how community protocols are regulated and supported at the international level by examining the Nagoya Protocol and decisions by the Conference of the Parties to the Convention on Biological Diversity. Under both instruments, traditional knowledge and community protocols are to be supported and protected ‘subject to national law’. Hence, section 4.3 examines how community protocols are applied and upheld in practice by reviewing national legislation and practices regarding the support and development of community protocols. How the analysis of the national legal systems was conducted is clarified in section 4.3.1 in conjunction with the review.

The fifth chapter contains case studies on the use of community protocols by indigenous communities in India and South Africa. These communities have different types of traditional knowledge; the knowledge of the Raika community in India regard livestock and environmental conservation, and the Kukula community in South Africa have knowledge regarding traditional medicine. However, I do not claim to have a deep understanding of their experiences. Each case study ends with a summary of relevant domestic legislation to understand how the state regulates the use of traditional knowledge and community protocols. The case studies end with a summary of the current situation for indigenous peoples within the country, to provide a fuller picture of the situation for indigenous peoples in that state. The current situation for indigenous peoples is based on a study from 2020 by the International Working Group for Indigenous Affairs. In the sixth chapter, conclusions will be drawn.

2. CENTRAL CONCEPTS AND DEFINITIONS

2.1. Who are Indigenous Peoples and Local Communities?

There are approximately 476 million indigenous peoples living in 90 countries.[15] The rights of indigenous peoples are set out in the 1989 ILO Convention (No. 169) concerning indigenous and tribal peoples in independent countries [16] (ILO Convention No. 169) and in the 2007 UN Declaration on the Rights of Indigenous Peoples.[17] The ILO Convention 169 is the only legally binding Convention on indigenous issues but has only 23 member states.[18] The UN Declaration is a non-binding declaration, but 150 states have adopted it, and it is often held to be the most inclusive international instrument on the rights of indigenous peoples.[19]

There is no universally accepted definition for indigenous peoples[20] and the UN Declaration on the Rights of Indigenous Peoples does not contain a definition. The most used definition is by Martinez Cobo, the former UN Special Rapporteur on Indigenous Issues, who in 1986 conducted the first major UN study on indigenous peoples. He concluded that "[i]ndigenous communities, Peoples and nations are those which, having a historical continuity with pre-invasion and pre-colonial societies that developed on their territories, consider themselves distinct from other sectors of the societies now prevailing on those territories, or parts of them. They form at present non-dominant sectors of society and are determined to preserve, develop to future generations their ancestral territories, and their ethnic identity, as the basis of their continued existence as Peoples, in accordance with their own cultural patterns, social

[15] The World Bank, 'Indigenous Peoples' <www.worldbank.org/en/topic/indigenouspeoples> accessed 21 July 2020; International Work Group for Indigenous Affairs (IWGIA) '476 Million Indigenous People' (*IWGIA*, 29 July 2017) <https://iwgia.org/en/indigenous-world.html> accessed 21 July 2020.
[16] Convention (No. 169) concerning indigenous and tribal peoples in independent countries (adopted 27 June 1989, entered into force 5 September 1991) 1650 UNTS 383 (ILO Convention No. 169).
[17] UN Declaration on the Rights of Indigenous Peoples, UNGA Res 61/295, UN Doc A/RES/47/1 (13 September 2007).
[18] ILO, 'Ratifications of C169 - Indigenous and Tribal Peoples Convention, 1989 (No. 169)' (*ILO*) <www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:11300:0::NO:11300:P11300_INSTRUMENT_ID:312314:NO> accessed 1 July 2020.
[19] Athili Sapriina and Paritosh Chakma, 'India' in David Nathaniel Berger (ed), *The Indigenous World 2019* (IWGIA 2019) 347.
[20] Katja Göcke, 'Indigenous Peoples in International Law' in Brigitta Hauser-Schäublin (ed), *Adat and Indigeneity in Indonesia* (Göttingen University Press 2017) 17.

institutions and legal systems."[21] This definition is used by the UN and the International Law Association, as it identifies but does not define indigenous peoples. The criteria can be applied flexibly, with the fundamental criteria being self-identification or, as in the case of the International Law Association in addition to, a special relationship with ancestral land.[22] ILO Convention 169 does not contain a definition of indigenous peoples but gives criteria for whom it aims to protect.[23] The criteria are: firstly that they are descendants of people who lived in the area before colonisation; secondly, that they retain some or all of their own institutions; thirdly and fundamentally, that they self-identify as indigenous.[24]

Both the Convention on Biological Diversity (CBD) and its Nagoya Protocol applies to "indigenous and local communities."[25] The Conference of the Parties to the CBD have suggested that the definition by Martinez Cobo can be used under CBD when identifying indigenous peoples.[26] Local communities are communities that for generations have relied on the same type of natural resources and have gathered knowledge regarding sustainable development and the environment. One example is farming communities in France who have farmed their land for generations and trough that developed environmental knowledge about technologies and plants.[27] CBD does not only apply to "indigenous and local communities", but to "indigenous and local communities embodying traditional lifestyles." By including "embodying traditional lifestyles" it has been held to exclude peoples who are of traditional decent, but no longer live in traditional communities themselves.[28]

[21] José Martinez Cobo, 'Study on the Problem of Discrimination against Indigenous Populations' (1986) Un Doc E/CN.4/Sub.2/1986/7/Add.4 [379].
[22] Committee on Rights of Indigenous Peoples (2006 - 2012), 'Rights of Indigenous Peoples' in International Law Association Report of the Seventy-Fifth Conference (Sofia 2012) (International Law Association, London 2012) <http://www.ila-hq.org/index.php/committees> 505; UN Permanent Forum on Indigenous Issues, 'Fact Sheet: Who Are Indigenous Peoples?' (2006).
[23] ILO, *ILO Convention on Indigenous and Tribal Peoples, 1989 (No. 169): A Manual* (ILO 2003).
[24] ILO Convention No. 169 art 1.
[25] CBD Art 8(j); Nagoya Protocol preamble, art 5(5).
[26] COP 14 Decision 14/13, 'Glossary of Relevant Key Terms and Concepts within the Context of Article 8(j) and Related Provisions' (Sharm El-Sheikh 2018) CBD/COP/DEC/14/13 3.
[27] CBD Capacity-Building Workshop on Networking and Information Exchange for National Focal Points and Indigenous and Local Communities in the Latin America and the Caribbean Region, 'Who Are Local Communities?' (Quito 2006) UNEP/CBD/WS-CB/LAC/1/INF/5 2.
[28] Lyle Glowka, Françoise Burhenne-Guilmin and Hugh Synge, *A Guide to the Convention on Biological Diversity* (IUCN Gland and Cambridge 1994) 48.

While some states might use terms such as tribes, aboriginals or first nation, these terms can be used interchangeably with the term indigenous peoples.[29] I will not make a distinction between indigenous peoples and local communities as both CBD and the Nagoya Protocol applies to both of them. For this thesis, self-identification will be the criteria for identifying indigenous peoples as it is the fundamental criterion for the UN, ILO and the International Law Association. Therefore, when a particular community is referred to as indigenous, it will be seen as indigenous because they identify as such.

2.2. What is Traditional Knowledge?

There is no specific definition for the term 'traditional knowledge'. Traditional knowledge has been defined as "information that people in a given community, based on experience and adaptation to local culture and environment, have developed over time, and continue to develop. This knowledge is used to sustain the community and its culture and to maintain the genetic resources necessary for the continued survival of the community".[30] Hence, it is knowledge, practices, and innovations held by indigenous and local communities that have been passed down from generation to generation. It can be knowledge regarding plants and animals, minerals and soil, processes, and technologies as well as means of enhancing individual and collective health and welfare. Traditional knowledge can take the form of rituals, beliefs, language, and cultivation of plants.[31] However, traditional knowledge is not only knowledge relating to the use of a specific plant or harvesting method but knowledge about the human as a part of nature and not as a separate entity. For many indigenous peoples, the ecosystem provides food, shelter and health care when the government is not able to.[32]

Traditional knowledge is usually a part of the community's environment, culture, religion and their traditional way of life. However, the knowledge does not have to be old to be

[29] UN Permanent Forum on Indigenous Issues (n 22); World Bank, 'Implementation of Operational Directive 4.20 on Indigenous Peoples: An Evaluation of Results' (2003) 7.
[30] Stephen A Hansen and others, *Traditional Knowledge and Intellectual Property: A Handbook on Issues and Options for Traditional Knowledge Holders in Protecting Their Intellectual Property and Maintaining Biological Diversity* (American Association for the Advancement of Science 2003) 3.
[31] O'Connor (n 3) 678.
[32] Bavikatte, Robinson and Oliva (n 11) 9.

considered 'traditional' as it is enough that it is generated traditionally.[33] As stated by one indigenous person, "many Indigenous people avoid the term 'traditional knowledge' because 'traditional' implies that the knowledge is old, static, and passed down from generation to generation without critical re-evaluation, change or further development. In other words, the implication is that [traditional knowledge] is not 'science' in the formal sense of a systematic body of knowledge that is continually subject to empirical challenges and revision. Rather the term implies something 'cultural' and antique. […] What […] the international community needs to protect is 'indigenous science'."[34]

Article 8(j) of CBD holds that traditional knowledge is "knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity". There is no definition under the Nagoya Protocol, as the parties decided that the definition under CBD would be sufficient.[35] The CBD Working Group of Technical and Legal Experts have stated that there are two different types of traditional knowledge "one that is highly specific and [one] that which is of a more general nature, related to the encompassing ecosystem and is the result of co-evolution".[36] The Working Group on Article 8j of the CBD recommended in 2019 that the Conference of the Parties to the CBD at their next meeting recognises that traditional knowledge is fundamental to achieve the 2050 vision of living in harmony with nature.[37] They also recommend the adoption of a new program that would give the same respect to traditional knowledge as to other forms of knowledge.[38]

The World Intellectual Property Organizations (WIPO) informal definition of traditional knowledge is "tradition-based literary, artistic or scientific works; performances; inventions;

[33] Thomas Greiber and others, *An Explanatory Guide to the Nagoya Protocol on Access and Benefit-Sharing* (IUCN, Gland, Switzerland 2012) 91.
[34] WIPO, 'Intellectual Property Needs and Expectations of Traditional Knowledge Holders WIPO Report on Fact-Finding Missions on Intellectual Property and Traditional Knowledge (1998-1999)' (WIPO 2001) 116.
[35] Greiber and others (n 33) 91.
[36] CBD Ad Hoc Open-Ended Working Group on Access and Benefit-Sharing (CBD WGABS) 'Report of the Meeting of the Group of Technical and Legal Experts on Traditional Knowledge Associated with Genetic Resources in the Context of the International Regime on Access and Benefit-Sharing' (Montreal 2009) UNEP/CBD/WG-ABS/8/2 [9].
[37] CBD WG8J 11 Recommendation 11/1, 'In-Depth Dialogue on the Thematic Areas and Other Cross-Cutting Issues' (Montreal 2019) CBD/WG8J/REC/11/1 1.
[38] CBD WG8J 11 Recommendation 11/2, 'Development of a New Programme of Work and Institutional Arrangements on Article 8(j) and Other Provisions of the Convention Related to Indigenous Peoples and Local Communities' (Montreal 2019) CBD/WG8J/REC/11/2 4.

scientific discoveries; designs; marks, names and symbols; undisclosed information; and all other tradition-based innovations and creations resulting from intellectual activity in the industrial, scientific, literary or artistic fields. 'Tradition-based' refers to knowledge systems, creations, innovations and cultural expressions which: have generally been transmitted from generation to generation; are generally regarded as pertaining to a particular people or its territory; and are constantly evolving in response to a changing environment."[39] WIPO addresses both traditional knowledge associated with genetic resources and traditional knowledge associated with traditional cultural expressions. These two areas often coincide and do not necessarily mean knowledge about different subjects.[40] However, as the focus of this thesis is on traditional knowledge associated with genetic resources, traditional cultural expressions will not be discussed further.

Traditional knowledge is often knowledge about the use of plants for medical purposes, and the World Health Organization defines traditional medical knowledge as "the sum total of the knowledge, skill, and practices based on the theories, beliefs, and experiences Indigenous to different cultures, whether explicable or not, used in the maintenance of health as well as in the prevention, diagnosis, improvement or treatment of physical and mental illness".[41] Traditional medicine was the primary form of health care for 80 % of the world's populations in 1994,[42] and in 2010 the China Chamber of Commerce for Import and Export of Medicines and Health Products reported exports of 1.8 billion USD in herbal treatment medicine.[43]

Even when there are some guidelines on what can and cannot be determined to be traditional knowledge, indigenous communities enjoy broad discretion in deciding what they consider

[39] WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore (WIPO IGC) 'Elements of a Sui Generis System for the Protection of Traditional Knowledge' Prepared by the Secretariat (29 March 2002) WIPO/GRTKF/IC/3/8 [10].
[40] WIPO, 'Traditional Knowledge' (*WIPO*) <www.wipo.int/tk/en/> accessed 29 April 2020; WIPO, 'Traditional Cultural Expressions' (*WIPO*) <www.wipo.int/tk/en/folklore> accessed 29 April 2020.
[41] WHO (ed), *WHO Traditional Medicine Strategy. 2014-2023* (WHO 2013) 15.
[42] UN Conference on Trade and Development, 'Systems and National Experiences for Protecting Traditional Knowledge, Innovations and Practices' (22 August 2000) UN Doc TD/B/COM.1/EM.13/2 [11].
[43] WIPO, WHO and WTO (eds), *Promoting Access to Medical Technologies and Innovation: Intersections between Public Health, Intellectual Property, and Trade* (WHO: WIPO: WTO 2013) 89.

to be traditional knowledge.[44] Hence, when something in this thesis is classified as traditional knowledge, it is due to indigenous and local communities identifying it as such.

2.3. The Need to Protect Traditional Knowledge

2.3.1. Protection from Misappropriation

Terms such as bioprospecting, biopiracy and, misappropriation have all been used to describe situations where traditional knowledge is used without approval and without sharing benefits with the original holders of the knowledge. Today, cosmetic, food, agricultural and pharmaceutical corporations track natural resources to find new ingredients for their products.[45] In 2019 the UN Permanent Forum on Indigenous Issues held that traditional knowledge continues to be threatened by commercial exploitation.[46]

Bioprospecting is the fact-finding process of looking for commercially valuable biological resources. When bioprospecting is done correctly, it can provide environmentally friendly development and in return, generate benefits to the holders of the genetic resource. Bioprospecting becomes a win-win situation.[47] This can be seen from the use of *Homalanthus nutans* on Samoa. Two traditional healers on Samoa taught American cancer researchers how to use the *Homalanthus nutans* tree. The healers and the researchers entered into a benefit-sharing agreement stating that if a drug were to be developed from the plant the state of Samoa would receive 12,5 % of the net profits, 6,7 % would go to the villages holding the knowledge and 0,4 % to the families of the healers.[48]

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[44] Tobias Stoll, 'Intellectual Property and Technologies' in Marc Weller and Jessie Hohmann (eds), *The UN Declaration on the Rights of Indigenous Peoples: a commentary* (First edition, Oxford University Press 2018) 311.
[45] Bavikatte, Robinson and Oliva (n 11) 10.
[46] UNPFII, 'Report on the Eighteenth Session' (22 April–3 May 2019) UN Doc E/2019/43-E/C.19/2019/10 [7].
[47] Thomas Eisner, 'Chemical Prospecting: A Proposal for Action' in F Herbert Bormann and Stephen R Kellert (eds), *Ecology, economics, ethics: the broken circle* (Yale University Press 1991)196; Walter Reid and others (eds), *Biodiversity Prospecting: Using Genetic Resources for Sustainable Development* (World Resources Institute (WRI), USA 1993) v .
[48] Tobias Kiene, *The Legal Protection of Traditional Knowledge in the Pharmaceutical Field: An Intercultural Problem on the International Agenda* (Waxmann 2011) 20–21; International Expert Group on Biotechnology, Innovation and Intellectual Property, 'Toward a New Era of Intellectual Property: From Confrontation to Negotiation' (2008) 31; CBD, 'Access to Genetic Resources and Benefit-

The terms misappropriation and biopiracy were established when companies started to monopolise and patent traditional knowledge, without the communities' approval and without sharing benefits.[49] Vandana Shiva defines biopiracy as "the use of intellectual property systems to legitimise the exclusive ownership and control over biological resources and biological products and processes that have been used over centuries in non-industrialised cultures" and argues that it take place due to insufficient western patent systems and the western bias against other cultures.[50] There is no mechanism of tracking the use of genetic resources, making it impossible to protect indigenous peoples from misappropriation.[51] Scientists can find and develop new drugs by studying indigenous peoples' use of specific natural resources. By using western scientific methods, scientists and researchers can find new ingredients, discover potential properties and develop new medical treatments. Without indigenous peoples, the natural resource and its active compounds might never have been found. Even if traditional knowledge is only used in the initial stage, the knowledge is essential, as "without it the biotechnology industry would have to use a 'hit or miss' approach. Considering the amount of species, micro-organisms and plants on our planet, the extra expenses and time involved in the research and development without the use of ethnobiological knowledge is obvious".[52] Erica-Irene Daes, the former UN Special Rapporteur on Indigenous Issues, has held that by using traditional knowledge, biotechnology companies can increase their efficacy by 400 %.[53] Even when misappropriation does result in economic drawbacks; the most significant effects may be cultural and spiritual as they are closely linked to traditional knowledge, and in some instances, the communities' access to their traditional knowledge has been restricted by companies.[54]

Sharing under the Auspices of the Convention on Biological Diversity' <www.cbd.int/forest/doc/abs-policy-brief-en.pdf> 2.

[49] Robinson (n 5) 14.

[50] Vandana Shiva, *Protect or Plunder? Understanding Intellectual Property Rights* (Zed Books 2001) 49.

[51] Florian Rabitz, 'Biopiracy after the Nagoya Protocol: Problem Structure, Regime Design and Implementation Challenges' (2015) 9 Brazilian Political Science Review 30, 34.

[52] Martine de Koning, 'Biodiversity Prospecting and the Equitable Remuneration of Ethnobiological Knowledge; Reconciling Industry and Indigenous Interest' in Michael Blakeney (ed), *Intellectual property aspects of ethnobiology* (Sweet & Maxwell 1999) 32; CBD WGABS 8 (n 36) [8].

[53] UN Sub-Commission on the Promotion and Protection of Human Rights, 'Study on the Protection of the Cultural and Intellectual Property of Indigenous Peoples, by Erica-Irene Daes, Special Rapporteur of the Sub-Commission on Prevention of Discrimination and Protection of Minorities and Chairperson of the Working Group on Indigenous Populations' (28 July 1993) UN Doc E/CN.4/Sub.2/1993/28 [90].

[54] CBD WG8J 4 (n 8) [32]; Rachael Wynberg, 'Hot Air over Hoodia' [2010] Seedling October 22, 24.

Between 1981 and 2006 approximately half of all synthetic drugs were based on their natural origin, including 10 of the 25 highest-selling drugs in the US and of all anti-cancer drugs available, 47 % were natural and 34 % semi-natural.[55] In 2002 the global market value of traditional herbal medicines was 60 billion USD.[56] The use of the *Catharanthus Roseus* illustrates misappropriation. Catharanthus roseus, or the Rosy Periwinkle, is native to Madagascar. Indigenous and local community healers on Madagascar had used the plant to treat insect bites, toothache, eye infections, malaria, diabetes and some types of cancer. Scientists were first interested in the treatment of diabetes, but in 1958 two alkaloids, vincristine and vinblastine were discovered. Vincristine and vinblastine stop cell division, making them an effective medicine for leukaemia and lymphoma. Due to additional development, two highly effective cancer treatments were developed. The use of Rosy Periwinkle was patented in the USA in 1963 by Eli Lilly & Co and the estimated profit for the years the patent was active was 100 million USD. Today vincristine and vinblastine are used in chemotherapy and used as a treatment for breast cancer, lung cancer, Hodgkin's decease, leukaemia and testicular cancer. The original users of the Periwinkle have not received any compensation.[57]

The use of traditional knowledge in the drug development process is still of relevance today as indicated by an ethnobotanical study published in 2018, explaining in what way plants used by traditional healers in the Limpopo Province in South Africa can treat rhinitis and how the findings can be used in the development of plant-based anti-rhinitis drugs.[58]

[55] David Newman and Gordon Cragg, 'Natural Products as Sources of New Drugs over the Last 25 Years' (2007) 70 Journal of Natural Products 461.
[56] Kiene (n 48) 155–156.
[57] Kiene (n 48) 15–16; UN Sub-Commission on the Promotion and Protection of Human Rights (n 53) [91]; Gordon H Svoboda, Norbert Neuss and Marvin Gorman, 'Alkaloids of Vinca Rosea Linn. (Catharanthus Roseus G. Don.) V. Preparation and Characterization of Alkaloids' (1959) 48 Journal of the American Pharmaceutical Association 659.
[58] Sebua Silas Semenya and Alfred Maroyi, 'Ethnobotanical Study of Curative Plants Used by Traditional Healers to Treat Rhinitis in the Limpopo Province, South Africa' (2018) 18 African Health Sciences 1076.

2.3.2. Protection from the Extractive and Infrastructure Industry

States often support extractive and infrastructure projects as it can bring economic growth and development to the state. Nevertheless, as natural resources are easily affected by changes in the environment, it can harm local communities and their traditional knowledge.[59] Much of the world's oil, gas and coal are located on indigenous land, and extraction has negatively impacted indigenous people's water supplies, natural resources, and has led to forced relocation and the destruction of places with cultural and religious significance.[60] A UN study from 2015 held that only by protecting biodiversity and indigenous territories can traditional knowledge be protected.[61]

The extractive industry is commonly accompanied by roads and other infrastructure constructed in areas that typically have been remote, further affecting indigenous land.[62] This is demonstrated by the construction of the Lamu Port South Sudan Ethiopia Transport corridor (LAPSSET) in eastern Kenya. The LAPSSET project connects Kenya with Ethiopia, Uganda and South Sudan. It is part of the Kenya Vision 2030, intending to develop Kenya into a "newly industrialising, middle-income country providing a high quality of life to all its citizens by 2030 in a clean and secure environment". It includes highways, a 32-berth port, crude oil pipelines, railway lines, three international airports, three resort cities, and a multipurpose dam, in the area of the city of Lamu.[63] The area has an indigenous population of 56 000 peoples, consisting of four different indigenous communities. The indigenous communities manage the area's natural resources and rely on them for nourishment, shelter and health care. The construction of the LAPSSET project has led to land grabbing, forceful removal of community members from their ancestral land, and the

[59] John Sandlos and Arn Keeling, 'Aboriginal Communities, Traditional Knowledge, and the Environmental Legacies of Extractive Development in Canada' (2016) 3 The Extractive Industries and Society 278, 278.
[60] Human Rights Council (HRC) 'Report of the Special Rapporteur on the Rights of Indigenous Peoples, James Anaya Extractive Industries and Indigenous Peoples' (1 July 2013) A/HRC/24/41 [1]; HRC, 'Report of the Special Rapporteur on the rights of indigenous peoples, James Anaya Extractive industries operating within or near indigenous territories' (11 July 2011) A/HRC/18/35 [35], [39].
[61] United Nations Permanent Forum on Indigenous Issues (UNPFII) 'Study on the Treatment of Traditional Knowledge in the Framework of the United Nations Declaration on the Rights of Indigenous Peoples and the Post-2015 Development Agenda' Note by the Secretariat (2 February 2015) E/C.19/2015/4 [31], [41].
[62] HRC, 'Report of the Special Rapporteur on the rights of indigenous peoples, James Anaya Extractive industries operating within or near indigenous territories' (11 July 2011) A/HRC/18/35 [36].
[63] LAPSSET, 'What Is the LAPSSET Corridor Program?' (*LAPSSET*, 2020) <www.lapsset.go.ke/> accessed 30 April 2020.

environment, which is of uttermost importance for the survival of the indigenous communities, have been destroyed.[64] The High Court of Kenya decided in 2018 that the construction of the Lamu Port violated the right to a clean and healthy environment, the right to public participation and the right to culture.[65]

Sustainable development projects can bring the same results as mining and oil pumping. The Nordic states are developing renewable energy sources, such as wind energy sites and hydroelectric power plants, on Sami ancestral land which disrupts and destroys the environment and is affecting the Sami peoples' access to natural resources and reindeer grazing land. These projects have been implemented without the consent of the Sami People.[66] The increased global interest in biofuels, ecotourism, and wildlife conservation have also led to land grabbing, resettlement of indigenous communities, and loss of natural resources. The land acquired for biofuels and gaming reserves is developed for wildlife safaris, leading to indigenous communities being seen as intruders on their ancestral land. All of these projects typically need infrastructure, further affecting the environment of indigenous peoples and their ability to access natural resources.[67]

[64] Save Lamu, 'The Lamu County Biocultural Community Protocol' <https://naturaljustice.org/wp-content/uploads/2019/04/Lamu-County-BCP-2018.pdf> accessed 30 April 2020 8, 26, 40, 43-46.
[65] *Mohamed Ali Baadi and Others v Attorney General* [2018] High Court of Kenya No. 22 of 2012 105, 107-109.
[66] Laila Susanne Vars, 'Sápmi' in Dwayne Mamo (ed), *Indigenous World 2020* (IWGIA 2020) 528–529.
[67] Gilbert (n 6) 13–14, 17.

3. THE INTERNATIONAL LEGAL FRAMEWORK FOR THE PROTECTION OF TRADITIONAL KNOWLEDGE

3.1. The Convention on Biological Diversity and the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilisation to the Convention on Biological Diversity

The legally binding Convention on Biological Diversity (CBD) entered into force in 1993 and has been signed by every state except the USA and the Holy See.[68] The objectives of the Convention are the conservation of biological diversity, sustainable use of biological components and, the fair and equitable sharing of benefits arising out of the utilisation of genetic resources.[69] The CBD is a framework convention and set general goals that are realised by the Conference of the Parties to the CBD and by protocols, such as the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilisation to the Convention on Biological Diversity (the Nagoya Protocol).[70] The Nagoya Protocol was adopted in 2010 and entered into force in 2014, and fulfils the third objective of the CBD, addressing fair and equitable sharing of the benefits arising from the utilisation of genetic resources and the protection of biodiversity.[71] As of June 2020, the Protocol has 124 parties.[72]

Article 8(j), 10 and 15 of the CBD regard the protection of traditional knowledge, with Article 8(j) being the central provision. Article 8(j) holds that ”[e]ach Contracting Party shall, as far as possible and as appropriate: subject to its national legislation, respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of

[68] UNTC, ‘Multilateral Treaties Deposited with the Secretary-General, Chapter XXVII, 8. Convention on Biological Diversity’ <https://treaties.un.org/pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-8&chapter=27> accessed 22 June 2020.
[69] CBD art 1.
[70] Louisa Parks, *Benefit-Sharing in Environmental Governance: Local Experiences of a Global Concept* (Routledge 2020) 106; Glowka, Burhenne-Guilmin and Synge (n 28) 1.
[71] Nagoya Protocol art 1.
[72] UNTC, 'Multilateral Treaties Deposited with the Secretary-General, Chapter XXVII Environment, 8.b Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from Their Utilisation to the Convention on Biological Diversity' <https://treaties.un.org/Pages/Treaties.aspx?id=27&subid=A&clang=_en> accessed 22 June 2020.

biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilisation of such knowledge, innovations and practices".

Article 8(j) requires the state, subject to its national legislation, to firstly, preserve and maintain knowledge relevant for biological diversity, secondly to promote the wider application of traditional knowledge with the approval and involvement of the holders of the knowledge and thirdly, to encourage the sharing of benefits arising from the use of traditional knowledge. The wording "with the approval and involvement of the holders of such knowledge" entails that indigenous peoples should participate when their knowledge is utilised. Although the provision does not explicitly refer to the principle of prior informed consent, the Conference of the Parties to the CBD held at their fifth meeting that accessing traditional knowledge "should be subject to prior informed consent or prior informed approval from the holders of such knowledge".[73] Free, prior, and informed consent can be seen as a "mechanism for insuring community involvement, participation, decision-making, and self-determination."[74] The consent is 'free' when it is given without manipulation, 'prior' ensures that the consent was sought in advance with enough time for the indigenous community to consent in accordance with community procedures. The consent is 'informed' when the community receives information on the scope, purpose, duration as well as information on what areas will be affected by the project.[75]

The application of Article 8(j) is challenging as some states do not recognise indigenous peoples and local communities and the provision is to be applied "subject to […] national legislation".[76] The wording "as far as possible and as appropriate" also conveys that the provision does not require any specific mandatory actions. The only mandatory obligation under the CBD is the obligation to submit national reports to the Conference of the Parties on measures it has taken to implement the Convention.[77] In 2016 the Conference of the

[73] COP 5 Decision V/16, 'Article 8(j) and Related Provisions' (Nairobi 2000) UNEP/CBD/COP/5/23 143.
[74] Laurel Firestone, 'You Say Yes, I Say No; Defining Community Prior Informed Consent under the Convention on Biological Diversity' (2003) 16 Georgetown International Environmental Law Review 171, 177.
[75] CBD WG8J 4 (n 8) [42.a].
[76] Parks (n 70) 106.
[77] CBD art 26.

Parties noted the limited progress states had made regarding the implementation of Article 8(j).[78]

Article 10(c) of CBD goes further than Article 8(j) and holds that states have to protect the customary use of biological resources in accordance with traditional cultural practices. Hence, Articles 8(j) and 10(c) oblige states to protect traditional knowledge by respecting indigenous cultures and encouraging the customary use of natural resources.[79] In 2014 the Conference of the Parties made a non-binding plan of action regarding the sustainable use of biological diversity and the implementation of Article 10(c) on a local, national and international level. The plan of action holds that traditional knowledge should be recognised as useful and necessary for the conservation of biodiversity and that as indigenous and local communities are the holders of their traditional knowledge, access to such knowledge should be subject to their prior informed consent or involvement. Furthermore, indigenous peoples and local communities should be able to participate fully in any state activity relating to the use of biological diversity.[80]

While Article 8(j) recognises the holders of traditional knowledge Article 15 regard state sovereignty over natural resources. Article 15 concern access to genetic resources and sets out principles regarding access and benefit-sharing. The party providing genetic resources has a right to consent to it being used before a third party accesses the resource,[81] and states should implement domestic measures relating to the sharing of benefits based on mutually agreed terms.[82] Mutually agreed terms is a contract between the provider and the user of traditional knowledge expressing the terms for sharing of benefits and that free, prior and informed consent was obtained.[83] Article 15 does not directly apply to traditional knowledge associated with genetic resources, however, the CBD Working Group on Access and Benefit-Sharing have determined that Article 15 can be applied to traditional knowledge.[84]

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[78] COP 13 Decision 13/1, 'Progress in the Implementation of the Convention and the Strategic Plan for Biodiversity 2011-2020 and towards the Achievement of the Aichi Biodiversity Targets' (Cancun 2016) CBD/COP/DEC/XIII/1 [8].
[79] Kabir Sanjay Bavikatte and Tom Bennett, 'Community Stewardship: The Foundation of Biocultural Rights' (2015) 6 Journal of Human Rights and the Environment 7, 22.
[80] COP 12 Decision XII/12, 'Article 8(j) and Related Provisions' (Pyeongchang 2014) UNEP/CBD/COP/DEC/XII/12 4–5.
[81] CBD art 15(5).
[82] CBD art 15(7).
[83] Glowka, Burhenne-Guilmin and Synge (n 28) 80.
[84] CBD WGABS 8 (n 36) [55].

Article 8(j) and 15 has been criticised for focusing on the commercial aspects of traditional knowledge and overlooking the holistic meaning of the third objective of the Convention, the fair and equitable sharing of benefits arising from the utilisation of genetic resources. By focusing on trade, traditional knowledge that is important for environmental conservation but not profitable is ignored. This is demonstrated by access and benefit-sharing agreements having the same outline as trade agreements.[85] Access and benefit-sharing agreements and initiative typically fail as they do not take into account indigenous needs and culture.[86]

The Conference of the Parties has adopted three guidelines to clarify obligations relating to traditional knowledge and the implementation of Article 8(j). The Akwé: Kon voluntary guidelines regard the conduct of a cultural, environmental and social impact assessment when a development project is taking place or is likely to impact land that is traditionally occupied or used by indigenous peoples. It provides a framework where both governments and indigenous peoples can participate in decision making, and consider the indigenous culture and traditional knowledge.[87] Thus, the CBD member states have committed to using the Akwe Kon guidelines for any development projects taking place on indigenous land, instead of a standard environmental impact assessment. The Mo'otz Kuxtal voluntary guidelines clarify legal issues relating to the implementation of the objectives and Article 8(j) of the CBD.[88] The Mo'otz Kuxtal voluntary guidelines also specifically refer to community protocols.[89] In 2002 the Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of Benefits Arising out of Their Utilisation, Access and Benefits Sharing[90] was adopted. The Bonn Guidelines are voluntary and clarifies the obligations set out in Article 8(j) regarding access and benefit-sharing but does not expand state obligations or the rights of indigenous peoples.[91] Even when the Bonn guidelines were able to clarify some of the uncertainties in CBD, at the 2002 Johannesburg World Summit for Sustainable

[85] Bavikatte and Jonas (n 9) 12-13, 17.
[86] Gail Whiteman, 'All My Relations: Understanding Perceptions of Justice and Conflict between Companies and Indigenous Peoples' (2009) 30 Organization Studies 101, 110.
[87] COP 7 Decision VII/16.F, 'Akwé: Kon Voluntary Guidelines for the Conduct of Cultural, Environmental and Social Impact Assessment Regarding Developments Proposed to Take Place on, or Which Are Likely to Impact on, Sacred Sites and on Lands and Waters Traditionally Occupied or Used by Indigenous and Local Communities' (Kuala Lumpur 2004) UNEP/CBD/COP/DEC/VII/16 [3].
[88] Mo'otz Kuxtal Guidelines (n 9) annex [1]-[2].
[89] COP 13 Decision XIII/18 (n 9) [18]-[20].
[90] COP 6 Decision VI/24.A, 'Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of Their Utilisation' (The Hague 2002) UNEP/CBD/COP/6/20.
[91] COP 6 Decision VI/24.A (n 90) [2], [7].

Development, the participating states started discussing an international regime on benefit-sharing which led to the adoption of the Nagoya Protocol.[92]

The aim of the Nagoya Protocol is both inter and intra-state as it intends to achieve equity and fairness between provider and user states as well as between a state and its indigenous peoples. It is the only international agreement to address misappropriation of traditional knowledge.[93] The Nagoya Protocol concerns traditional knowledge associated with genetic resources,[94] which is defined as genetic material of actual or potential value, including all genetic material that contains DNA.[95]

Articles 5, 7 and 12[96] of the Nagoya Protocol regard traditional knowledge. Article 5(5) concerns the sharing of benefits and holds that "[e]ach Party shall take legislative, administrative or policy measures, as appropriate, in order that the benefits arising from the utilisation of traditional knowledge associated with genetic resources are shared fairly and equitably with indigenous and local communities holding such knowledge. Such sharing shall be upon mutually agreed terms." States are obligated to have mechanisms ensuring the sharing of benefits with the community that provided the knowledge to protect and preserve traditional knowledge and reaching fairness, equity and creating a dialogue between the parties.[97] The annex to the Nagoya Protocol lists potential monetary and non-monetary benefits that can be shared with the holders of the knowledge.

Article 7 concerns accessing traditional knowledge and hold that "[i]n accordance with domestic law, each Party shall take measures, as appropriate, with the aim of ensuring that traditional knowledge associated with genetic resources that is held by indigenous and local

[92] UN, 'Report of the World Summit on Sustainable Development' (26 August-4 September 2002 Johannesburg) A/CONF.199/20 35 [44.o].
[93] Elsa Tsioumani, 'Exploring Benefit-Sharing from the Lab to the Land (Part I): Agricultural Research and Development in the Context of Conservation and Sustainable Use' (2014) Edinburgh School of Law Research Paper No. 2014/44, BENELEX Working Paper 4, 26.
[94] Nagoya Protocol art 3.
[95] Glowka, Burhenne-Guilmin and Synge (n 28) 21–22.
[96] Article 12 regard community protocols and will be discussed in chapter 4.
[97] Elisa Morgera, 'Study on Experiences Gained with the Development and Implementation of the Nagoya Protocol and Other Multilateral Mechanisms and the Potential Relevance of Ongoing Work Undertaken by Other Processes, Including Case Studies' (Montreal 2016) UNEP/CBD/ABS/A10/EM/2016/1/2 3; Elisa Morgera, Elsa Tsioumani and Matthias Buck, *Unraveling the Nagoya Protocol: A Commentary on the Nagoya Protocol on Access and Benefit-Sharing to the Convention on Biological Diversity* (Brill 2014) 128.

communities is accessed with the prior and informed consent or approval and involvement of these indigenous and local communities, and that mutually agreed terms have been established." These obligations go beyond the obligations set out in CBD as states are obligated to develop domestic measures that ensure that parties seek prior informed consent from indigenous peoples before accessing their traditional knowledge. The wording 'in accordance with domestics law' refers to the state obligation to facilitate assistance to indigenous peoples when they need protection against exploitation, but does not go as far as 'subject to national law' which authorise a state to decide if they want to uphold a right or not.[98] In 2018 twenty-one member states with indigenous peoples and local communities had taken measures to ensure that traditional knowledge associated with genetic resources have been accessed with prior informed consent or approval and involvement of the holders of the knowledge and that mutually agreed terms have been established, as held in Article 7 of the Nagoya Protocol.[99] Forty-one states had taken legislative, administrative or policy measures to implement Article 5(5).[100]

The Nagoya Protocol holds two distinct obligations. Firstly, the obligation to act in accordance with the provider states domestic legislation on access and benefit-sharing and secondly the obligation to enter into access and benefit-sharing agreement with the indigenous peoples or local community holding the knowledge. Morgera, Buck, and Tsioumani hold that a benefit-sheering agreement is to be entered into before access to traditional knowledge is given. However, as the potential value is typically unknown until the utilisation of the genetic material the agreement has to be re-opened when the value of the traditional knowledge can be estimated, and a benefit-sharing agreement can be entered into. The role of these agreements is to set up a private-law contract, as the utilisers of traditional knowledge typically are institutions and corporations. By creating an obligation to enter into an agreement, states can ensure the indigenous communities' right to consent to their traditional knowledge being accessed as well as their right to benefits.[101] In 2019 the South African Khoikhoi and the San signed a Rooibos Benefit Sharing Agreement with the South African rooibos industry. It is the first industry-wide benefit-sharing agreement, as

[98] Bavikatte and Robinson (n 11) 43, 45.
[99] CBD Subsidiary Body on Implementation (CBD SBI) 'Assessment and Review of the Effectiveness of the Nagoya Protocol' (Montreal 2018) CBD/SBI/REC/2/2 13.
[100] CBD SBI Recommendation 2/2 (n 99) 11.
[101] Morgera, Tsioumani and Buck (n 97) 114, 131.

well as the most substantial benefit-sharing agreement to date.[102] The agreement recognises the Khoikhoi and San communities as the original holders of the knowledge regarding the use of Rooibos, and the communities will receive 1.5 % of the price that agricultural corporations pay for unprocessed Rooibos. For 2019 the compensation was estimated to be over 708 000 EUR.[103] The South African rooibos industry has also agreed to explore non-monetary benefits, but they have not yet been decided, the agreement mentions, for example, employment opportunities, bursaries and development schemes.[104] It is important to note that to reach an agreement the parties applied the Nagoya Protocol as well as the South African Biodiversity Act 10 of 2004 and the Bioprospecting, Access and Benefit Sharing Regulation of 2008 that goes beyond the Nagoya Protocol.[105]

Even when the Nagoya Protocol is a step forward regarding the protection of traditional knowledge, the Protocol is not without flaws. Firstly, due to the temporal scope, all traditional knowledge accessed before the Protocol entered into force in October 2014 is not covered by the Protocol.[106] Secondly, the access and benefit-sharing obligations in Article 5(5) of the Protocol emerges when traditional knowledge is utilised, however, there is no definition for the 'utilisation of traditional knowledge' making it unclear when access and benefit-sharing obligations arise.[107] Thirdly, the compliance procedure is complicated and contains vague requirements. Article 16(1) of the Nagoya Protocol holds that "[e]ach Party shall take appropriate, effective and proportionate legislative, administrative or policy measures, as appropriate, to provide that traditional knowledge associated with genetic resources utilised within their jurisdiction has been accessed in accordance with prior informed consent or approval and involvement of indigenous and local communities and that mutually agreed terms have been established, as required by domestic access and benefit-sharing legislation or regulatory requirements of the other Party where such

[102] Doris Schroeder and others, 'The Rooibos Benefit Sharing Agreement–Breaking New Ground with Respect, Honesty, Fairness, and Care' (2020) 29 Cambridge Quarterly of Healthcare Ethics 285, 286.
[103] Linda Nordling, 'Rooibos Tea Profits Will Be Shared with Indigenous Communities in Landmark Agreement' (2019) 575 Nature 19, 19-20.
[104] Schroeder and others (n 102) 292-293.
[105] Natural Justice, 'The Rooibos Access and Benefit-Sharing Agreement' (*Natural Justice*) <https://naturaljustice.org/the-rooibos-access-and-benefit-sharing-agreement/> accessed 25 June 2020.
[106] Evanson Chege Kamau, Bevis Fedder and Gerd Winter, 'The Nagoya Protocol on Access to Genetic Resources and Benefit Sharing: What Is New and What Are the Implications for Provider and User Countries and the Scientific Community?' 6 Law, Environment and Development Journal 246, 255.
[107] Maria Julia Oliva, 'Implications of the Nagoya Protocol' in Elisa Morgera, Matthias Buck and Elsa Tsioumani (eds), *The 2010 Nagoya Protocol on Access and Benefit-sharing in perspective: implications for international law and implementation challenges* (M Nijhoff Pub 2013) 378.

indigenous and local communities are located." States are obligated to ensure that user under its jurisdiction act in accordance with the provider states domestic legislation, and in cases of non-compliance, the user state has its own measures to respond to such non-compliance. This provision is argued to be one of the most challenging to implement,[108] as the sharing of benefits is not between states but between the provider state and a private entity, prior informed consent is generally governed by domestic administrative legislation and mutually agreed terms are based on private contracts governed by two or more jurisdictions.[109]

Furthermore, there is not one compliance method for all parties of the Nagoya Protocol, but each situation is based on a bilateral agreement between the user and the provider.[110] Even when the user state does not have to apply the provider states domestic legislation, in cases of non-compliance, the court might have to rule on the user state legislation to decide on the merits.[111] Finally, as it is the provider state that has to enact legislation regarding access and benefit-sharing. If a user state realises that traditional knowledge utilised within its state was misappropriated in the provider state and the provider state does not have legislation on access and benefit-sharing, there are no available mechanisms under Article 16.[112] In cases of an alleged violation of a provider states access and benefit-sharing legislation, there is only a vague obligation to co-operate "as far as possible and as appropriate".[113]

Access and benefit-sharing is the primary method of protecting traditional knowledge under both the CBD and the Nagoya Protocol, which is a drawback as it is challenging to establish the original holder of the knowledge. It is difficult as the same knowledge can exist in multiple states and between both indigenous and non-indigenous peoples. Natural resources are seldom found in only one place, making it even more challenging to determine the original holder. This is also demonstrated by the fact that over the last 30 years, very few indigenous peoples have received benefits. For states, researchers and organisations to be able to protect traditional knowledge through access and benefit-sharing procedures they

[108] Morgera, Tsioumani and Buck (n 97) 267.
[109] Morgera, Tsioumani and Buck (n 97) 252.
[110] Alejandro Lago Candeira and Luciana Silvestri, 'Challenges in the Implementation of the Nagoya Protocol from the Perspective of a Member State of the European Union: The Case of Spain' in Elisa Morgera, Matthias Buck and Elsa Tsioumani (eds), *The 2010 Nagoya Protocol on Access and Benefit-sharing in Perspective* (Brill | Nijhoff 2013) 292.
[111] Morgera, Tsioumani and Buck (n 97) 256.
[112] Morgera, Tsioumani and Buck (n 97) 266.
[113] Nagoya Protocol art 16(3).

need advanced knowledge of the origin of the knowledge and the procedures of the indigenous community.[114]

3.2. The UN Declaration on the Rights of Indigenous Peoples

The UN General Assembly adopted the UN Declaration on the Rights of Indigenous Peoples in 2007.[115] It has been adopted by 150 states and declared to be "the most comprehensive international instrument on the rights of indigenous peoples".[116] Compared to the ILO Convention No. 169 indigenous peoples directly partook in the development process of the UN Declaration and it was not adopted until indigenous peoples supported it.[117] Although 150 states have accepted the Declaration, it is non-binding but has been adopted and referred to be several international institutions and instruments. The preamble of the Nagoya Protocol refers to the UN Declaration. It holds that "nothing in this Protocol shall be construed as diminishing or extinguishing the existing rights of indigenous and local communities",[118] thus the Nagoya Protocol can possibly be interpreted in accordance with the UN Declaration. The Human Rights Council has also adopted it,[119] and the Inter-American Court of Human Rights referred to the Declaration in *Saramaka v. Suriname*,[120] the African Commission on

[114] Graham Dutfield and others, 'Benefit Sharing and Traditional Knowledge: Unsolved Dilemmas for Implementation. The Challenge of Attribution and Origin: Traditional Knowledge and Access and Benefit Sharing' (2020) Voices for BioJustice, Policy Brief 2–3, 5, 7.
[115] General Assembly, '61/295. United Nations Declaration on the Rights of Indigenous Peoples' (13 September 2007) UN Doc A/RES/61/295.
[116] UN Department of Economic and Social Affairs Indigenous Peoples, 'United Nations Declaration on the Rights of Indigenous Peoples' <www.un.org/development/desa/indigenouspeoples/declaration-on-the-rights-of-indigenous-peoples.html> accessed 1 May 2020.
[117] Johanna Gibbson, 'The UN Declaration on the Rights of Indigenous Peoples' in Stephen Allen and Alexandra Xanthaki (eds), *Reflections on the UN Declaration on the Rights of Indigenous Peoples: Reflections on the UN Declaration on the Rights of Indigenous Peoples* (Bloomsbury Publishing 2011) 442.
[118] Nagoya Protocol preamble [26]-[27].
[119] HRC, 'Resolution 2006/2. Working Group of the Commission on Human Rights to Elaborate a Draft Declaration in Accordance with Paragraph 5 of the General Assembly Resolution 49/214 of 23 December 1994' (29 June 2006).
[120] *Saramaka People v Suriname* [2007] Inter-American Court of Human Rights Series C No. 172 [131], [138].

Human and Peoples Rights in *Endorois v. Kenya*[121] and the African Court on Human and Peoples Rights referred to the Declaration in *Ogiek v Kenya*.[122]

Article 31 of the UN Declaration regard the right to maintain, develop and protect traditional knowledge and it is the core article in the Declaration regarding indigenous cultural rights and cultural heritage, demonstrating that traditional knowledge is part of indigenous culture.[123] It holds that "(1) Indigenous peoples have the right to maintain, control, protect and develop their cultural heritage, traditional knowledge and traditional cultural expressions, as well as the manifestations of their sciences, technologies and cultures, including human and genetic resources, seeds, medicines, knowledge of the properties of fauna and flora […]. They also have the right to maintain, control, protect and develop their intellectual property over such cultural heritage, traditional knowledge, and traditional cultural expressions. (2) In conjunction with indigenous peoples, States shall take effective measures to recognise and protect the exercise of these rights".

The provision covers a substantial part of the indigenous lifestyle such as agriculture, forestry and medicine and protects against interference that could lead to indigenous communities losing or abandoning their knowledge. The right to 'control' and 'protect' traditional knowledge holds the right to set up customary rules relating to the use and distribution of the knowledge.[124] Some authors have argued that a customary rule is emerging and that traditional knowledge should be considered when assessing the novelty of a patent application as Article 8(j) of the Convention on Biological Diversity, the Nagoya Protocol and Article 31 of the UN Declaration are so similar.[125]

Article 31 has to be read in conjunction with Article 19 and Article 32(2) which regard the right for indigenous peoples to consent to state measures that might affect them. Article 19 holds that states shall consult the indigenous peoples concerned to obtain their free, prior and informed consent before implementing legislative or administrative measures that may

[121] *Centre for Minority Rights Development (Kenya) and Minority Rights Group International on behalf of Endorois Welfare Council v Kenya* [2010] African Commission on Human and People's Rights 276/2003 [204], [232].
[122] *African Commission on Human and Peoples' Rights v Republic of Kenya* [2017] African Court on Human and Peoples Rights App. No. 006/2012 [125], [128], [131].
[123] ILA Committee on Rights of Indigenous Peoples (2006 - 2012) (n 22) 16; Stoll (n 44) 303.
[124] Stoll (n 44) 313.
[125] Stoll (n 44) 315.

affect them. Article 32 holds that states shall obtain their free and informed consent before the state approves any project affecting indigenous lands or resources, particularly in connection with the exploitation of indigenous recourses.

3.3. ILO Convention on Indigenous and Tribal Peoples Rights

ILO Convention No. 169 concerning Indigenous and Tribal Peoples in Independent Countries was adopted in 1989 and entered into force in 1991. As of July 2020, only 23 states have ratified the Convention, mostly Central and South American States.[126] It is the only international treaty addressing the rights of indigenous peoples.

The Convention does not encompass a specific provision relating to the protection of traditional knowledge, but both Article 23 and 27 of the Convention refers to 'traditional technologies'. Article 23 holds that community-based industries and traditional activities such as hunting and fishing "shall be recognised as important factors in the maintenance of their cultures and in their economic self-reliance and development" and "appropriate technical and financial assistance shall be provided wherever possible, taking into account the traditional technologies […]." Article 27 holds that educational programmes for indigenous peoples and local communities shall incorporate their knowledge and technologies. The Convention refers to traditional knowledge as relevant only for the indigenous peoples, compared to the Convention on Biological Diversity where traditional knowledge is protected due to being essential for the conservation of biological diversity. The ILO Convention 169 does not hold any state obligations regarding the protection of traditional knowledge.[127]

Nonetheless, the Convention can still be of some relevance for the protection of traditional knowledge as it contains several provisions on state obligations relating to the protection of land, natural resources and culture which are connected to the protection of traditional

[126] ILO, Ratifications of ILO Convention No 169 (n 18).
[127] Michael Halewood, 'Indigenous and Local Knowledge in International Law: A Preface to Sui Generis Intellectual Property Protection' (1999) 44 McGill Law Journal 953, 969.

knowledge.[128] Firstly, states are obligated to protect indigenous land and natural resources[129] and have a responsibility to develop measures that protect the cultural and spiritual value land and natural resources hold for indigenous peoples.[130] Secondly, indigenous peoples and local communities have a right to take part in development processes that concern them. This includes the right to participate in the use, management and conservation of natural resources.[131] Governments are obligated to consult with indigenous communities when legislative or administrative measures may affect the indigenous community directly.[132]

3.4. International Covenant on Economic, Social and Cultural Rights and the International Covenant on Civil and Political Rights

The International Covenant on Economic, Social and Cultural Rights[133] (ICESCR) and the International Covenant on Civil and Political Rights[134] (ICCPR) have provisions relating to the right to culture that has later been interpreted to include the right to protect and enjoy traditional knowledge.[135]

Article 15(1)(a) of the ICESCR holds the right for everyone to take part in cultural life. For indigenous peoples, this includes the right to collectively ensure respect for their traditional knowledge as well as the state obligation to respect and protect traditional knowledge and natural medicines.[136] Article 15(1)(c) recognise the right of everyone "to benefit from the protection of the moral and material interests resulting from any scientific, literary or artistic

[128] UNPFII, 'Traditional Knowledge: Generation, Transmission and Protection' Note by the Secretariat (6 February 2019) E/C.19/2019/5 [48].
[129] ILO Convention No. 169 art 15.
[130] ILO Convention No. 169 art 2(1)(2)(b) and 13.
[131] ILO Convention No. 169 art 7(1) and 15.
[132] ILO Convention No. 169 art 6(1)(a).
[133] International Covenant on Economic, Social and Cultural Rights (adopted 16 December 1966, entered into force 3 January 1976) 993 UNTS 3 (ICESCR).
[134] International Covenant on Civil and Political Rights (adopted 16 December 1966, entered into force 23 March 1976) 999 UNTS 171 (ICCPR).
[135] UNPFII, 'Traditional Knowledge: Generation, Transmission and Protection' (n 128) [48]; CESCR, 'General Comment No. 21 Right of Everyone to Take Part in Cultural Life (Art. 15, Para. 1 (a), of the International Covenant on Economic, Social and Cultural Rights)' (21 December 2009) UN Doc. E/C.12/GC/21 [36]-[37]; CESCR, 'General Comment No. 17 (2005) The Right of Everyone to Benefit from the Protection of the Moral and Material Interests Resulting from Any Scientific, Literary or Artistic Production of Which He or She Is the Author (Article 15, Paragraph 1 (c), of the Covenant)' (12 January 2006) E/C.12/GC/1712 [32].
[136] CESCR, 'General Comment No. 21 Right of Everyone to Take Part in Cultural Life (Art. 15, Para. 1 (a), of the International Covenant on Economic, Social and Cultural Rights)' (n 135) [36]–[37], [50.c].

production of which he is the author". The provision protects moral and cultural rights and does not concern intellectual property rights, as the right of to benefit from the protection of the moral and material interests resulting from any scientific production protects the "personal link between authors and their creations" while intellectual property rights protect business interests. Furthermore, Article 15(1)(c) does not necessarily correspond to the domestic intellectual property rights and obligations.[137] General Comment 17 on Article 15(1)(c) holds that states should adopt measures to ensure the adequate protection of indigenous cultural heritage and traditional knowledge. When adopting these measures, states should regard the preferences of the community, and national intellectual property regimes should consider indigenous customary laws and the principle of free prior informed consent should be respected.[138]

Even when Article 15 of the ICESCR concerns indigenous culture, it is Article 27 of the ICCPR that has been utilised by indigenous communities in multiple instances. Article 27 holds that "in those States in which ethnic, religious or linguistic minorities exist, persons belonging to such minorities shall not be denied the right, in community with the other members of their group, to enjoy their own culture, to profess and practise their own religion, or to use their own language." The provision protects the right to indigenous culture and natural resources connected to culture.[139] For the provision to be applicable there needs to be a denial of culture or a threat to the survival of the culture or community,[140] of significance is also if the indigenous community was part of the decision-making process, which requires free, prior and informed consent.[141] The potential value of these provisions is unclear as Article 15 of the ICESCR has never been applied,[142] and Article 27 of the ICCPR has not been applied in situations relating to traditional knowledge.

[137] CESCR, 'General Comment No. 17' (n 135) [2]-[3].
[138] CESCR, 'General Comment No. 17' (n 135) [32].
[139] HRC, 'CCPR General Comment No. 23: Article 27 (Rights of Minorities)' (8 April 1994) CCPR/C/21/Rev.1/Add.5 [3.2], [7]; *Chief Bernard Ominayak and Lubicon Lake Band v Canada* [1990] HRC CCPR/C/38/D/167/1984 [29.1], [33].
[140] *Jouni E Länsman et al v Finland* [1995] HRC UN Doc CCPR/C/58/D/671/1995 [10.6]; *Ángela Poma Poma v Peru* [2009] HRC UN Doc CCPR/C/95/D/1457/2006 [7.7].
[141] *Ángela Poma Poma v Peru* (n 140) [7.6]; *Apirana Mahuika et al v New Zealand* [2000] HRC UN Doc CCPR/C/70/D/547/1993 [9.5].
[142] UN Human Rights Office of the High Commissioner, 'Jurisprudence' <https://juris.ohchr.org/search/results> accessed 2 August 2020.

3.5. The UN Guiding Principles on Business and Human Rights

The UN Guiding Principles on Business and Human Rights holds the state duty to protect against human rights abuses by third parties, the corporate responsibility to respect human rights as well as the access to an effective remedy by victims of human rights abuses.[143] The Human Rights Council endorsed the Guiding Principles in 2011.[144] The corporate responsibility to respect human rights set the global standard of expected conduct for corporations. The expected conduct is based on both a legal and a social standard, as social norms exist independently from a state's willingness to follow human rights standards and can affect a corporation's ability to continue their business. Even though social expectations and norms vary widely between states, John Ruggie, the author of the Guiding Principles, holds that the corporate responsibility holds "near-universal recognition" as "virtually every company and [Corporate Social Responsibility] initiative acknowledge the corporate responsibility to respect human rights."[145] The impact of social sanctions is well illustrated when Shell lost its social license to operate in Nigeria, 15 years before Nigerian authorities officially revoked the licence. In the 1950s Shell started pumping oil in the indigenous Ogoniland in Nigeria, leading to, e.g., environmental pollution, acid rains and oil spills undermining local agriculture. Shell withdrew from the area in 1993 mainly due to demonstrations by more than 300,000 Ogoni and in 2008 Nigerian authorities stated that another oil operator was to take over as there was no confidence between the Ogoni community and Shell.[146]

The Guiding Principles have been criticised for lacking legal compliance mechanisms as voluntary principles seldom are enough to create a national and international impact. Even if numerous corporations do have Corporate Social Responsibility policies, it is voluntary to abide by them, compared to human rights which are not.[147]

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[143] UN Human Rights Office of the High Commissioner, 'Guiding Principles on Business and Human Rights: Implementing the United Nations "Protect, Respect and Remedy" Framework' (United Nations 2011) HR/PUB/11/04 (Guiding Principles).
[144] HRC, 'Human Rights and Transnational Corporations and Other Business Enterprises' (6 July 2011) Un Doc A/HRC/RES/17/4 201.
[145] John Ruggie, *Just Business: Multinational Corporations and Human Rights* (First edition, W W Norton & Company 2013) 90–92.
[146] Ruggie (n 145) 9–11, 13.
[147] Robert McCorquodale, 'Corporate Social Responsibility and International Human Rights Law' (2009) 87 Journal of Business Ethics 385, 385, 391.

Under the Guiding Principles corporations have a responsibility to respect human rights no matter where the human rights abuses occur and to avoid infringing on the human rights of others. Corporations should carry out human rights due diligence "in order to identify, prevent, mitigate and account for how they address their adverse human rights impacts."[148] Though states hold the primary duty of protecting human rights, corporations do have a responsibility or even a duty of human rights due diligence.[149] Human rights due diligence include the responsibility to have meaningful consultation with potentially affected groups; to understand the impacts it would have on these groups.[150] The due diligence responsibility applies to all steps of the business operations, wherever they are carried out.[151] The UK Supreme Court found in April 2019 in *Vedanta Resources PLC and another v Lungowe and others* that the English parent company Vedanta had a duty of care and could be held liable for human rights violations and environmental damage carried out by its subsidiaries in Zimbabwe. The Supreme Court held that Vedanta had a duty of care as it had implemented standards, training and monitored the actions taken by the subsidiary.[152] However, as the Guiding Principles are voluntary, even if an obligation of duty of care is established when a corporation implements a human rights policy, there are no such obligations for a corporation that decides against implementing such policies.[153] This demonstrates the weakness of not having a legally binding mechanism.

The corporate responsibility concerns internationally recognised human rights; at a minimum, the Universal Declaration of Human Rights, the International Covenant on Civil and Political Rights, the International Covenant on Economic, Social and Cultural Rights, and the principles concerning fundamental rights set out in the International Labour Organization's Declaration on Fundamental Principles and Rights at Work.[154] James Anaya,

[148] Guiding Principles (n 143) 13, 17.
[149] Lia Heasman, *The Corporate Responsibility to Protect Human Rights: The Evolution from Voluntarism to Mandatory Human Rights Due Diligence* (Helsinki: [University of Helsinki] 2018) 206–207.
[150] Guiding Principles (n 143)19–20.
[151] Guiding Principles (n 143) 14–15.
[152] *Vedanta Resources PLC and another (Appellants) v Lungowe and others (Respondents)* [2019] UKSC 20 [44], [53], [61].
[153] Hogan Lovells, 'The Implications of the UK Supreme Court's Decision in Vedanta for the Management of Human Rights Risk in Overseas Operations and Supply Chains' (*University of Oxford, Faculty of Law*, 30 May 2019) <www.law.ox.ac.uk/business-law-blog/blog/2019/05/implications-uk-supreme-courts-decision-vedanta-management-human> accessed 2 July 2020.
[154] Guiding Principles (n 143) 13.

the former UN Special Rapporteur on Indigenous Issues, argues that also the rights of indigenous peoples as laid out in UN Declaration on the Rights of Indigenous Peoples, ILO Convention No. 169 and the Convention on Biological Diversity are to be included.[155] The UN Declaration and ILO Convention 169 should guide the activities of the company even if the state has not accepted these instruments, as the corporate responsibility exists independently from the state duty to fulfil their human rights obligations.[156] Abiding by domestic laws is not enough if the domestic laws do not respect the rights of indigenous peoples.[157] Anaya further holds that the principle of free prior and informed consent and benefit-sharing are part of the human rights framework.[158] Consent and benefit-sharing should, therefore, be addressed by corporations during the human rights due diligence process.

3.6. The Intellectual Property Law Framework

3.6.1. The Challenge of Fitting Traditional Knowledge into the Existing Patent Law System

Patent law is understood as creating an exclusive monopoly right to a new invention for a limited time,[159] and in exchange, the inventor shares a description of the invention for others to be able to replicate and use the invention.[160] Problems arise when the invention is based on traditional knowledge, as patents are often granted without consideration of the source,[161] it is challenging to keep the knowledge a secret and to share benefits with the original

[155] James Anaya, 'Forum on Business and Human Rights 2012. Statement by Professor James Anaya' (2012).
[156] HRC, 'Report of the Special Rapporteur on the Situation of Human Rights and Fundamental Freedoms of Indigenous People, James Anaya' (19 July 2010) A/HRC/15/37 [47].
[157] Guiding Principles (n 143) 13.
[158] HRC, 'Report by James Anaya 2013' (n 60) [30], [38].
[159] Jonathan Curci, *The Protection of Biodiversity and Traditional Knowledge in International Law of Intellectual Property* (Cambridge University Press 2010) 5–6.
[160] Sven JR Bostyn, 'A European Perspective on the Ideal Scope of Protection and the Disclosure Requirement for Biotechnological Inventions in a Harmonised Patent System: The Quest for the Holy Grail?' (2005) 5 The Journal of World Intellectual Property 1013, 1016.
[161] Weerawit Weeraworawit, 'Formulating an International Legal Protection for Genetic Resources, Traditional Knowledge and Folklore: Challenges for the Intellectual Property System' (2003) 11 Cardozo Journal of International and Comparative Law 769 772.

inventor.[162] Traditional knowledge is not knowledge about one specific thing but connected to culture, religion, customary laws and management of natural resources. Thus, traditional knowledge does not always fit into the intellectual property framework.[163]

Patent laws and patent systems vary between domestic legislation. However, the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement)[164] is held to be the most comprehensive agreement on intellectual property rights. It is an agreement between the 164 WTO member states and sets out the minimum standard for protecting intellectual property rights.[165] It is exceptionally extensive as it also holds that the rights established in the Paris Convention for the Protection of Industrial Property cannot be derogated from.[166] The TRIPS agreement will be looked at to give an overview of international patent laws concerning traditional knowledge.

The TRIPS Agreement holds that patents shall be available for any inventions, in all fields of technology, providing that they are novel, involve an inventive step and have industrial applicability.[167] Novelty ensures that the innovation demonstrates characteristics that have not been seen before; it cannot be published information or information in the public domain. The requirement regarding an inventive step requires the innovation to be non-obvious to an average expert at the time it was invented. The industrial applicability requirement obliges that the invention is useful and has technical information. Hence the innovation has to have a practical purpose and not only regard an abstract theory.[168]

Traditional knowledge associated with genetic resources is difficult to patent as, firstly, genetic resources as such cannot be patented, as they are not new inventions. Secondly, patents are not granted to a community but to one person, a group of people or a company.[169]

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[162] Curci (n 159) 5–6.
[163] Bavikatte and Jonas (n 9) 14.
[164] Agreement on Trade-Related Aspects of Intellectual Property Rights, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C (adopted 15 April 1994) 1869 UNTS 299 (TRIPS).
[165] WTO, 'Intellectual Property: Protection and Enforcement' (*WTO*) <www.wto.org/english/thewto_e/whatis_e/tif_e/agrm7_e.htm> accessed 23 July 2020.
[166] TRIPS art 2(1).
[167] TRIPS art 27(1).
[168] Antony Taubman, Hannu Wager and Jayashree Watal, *A Handbook on the WTO TRIPS Agreement* (Cambridge University Press 2012) 98–100.
[169] WIPO, 'Traditional Knowledge and Intellectual Property – Background Brief' <www.wipo.int/pressroom/en/briefs/tk_ip.html> accessed 27 July 2020.

Thirdly, legal knowledge and expertise are generally required to obtain a patent, something the indigenous community might lack the monetary means to acquire.[170] Fourthly, knowledge in the public domain cannot be patented. Article 70(3) of the TRIPS Agreement holds that "there shall be no obligation to restore protection to subject matter which on the date of application of this Agreement for the Member in question has fallen into the public domain." Traditional knowledge is often knowledge known by multiple communities, or knowledge available to everyone in the community. Traditional medicines are frequently held to be in the public domain; thus, companies are free to utilise the information and are not obligated to share benefits with the community. However, the CBD Group of Technical and Legal Experts have pointed out that 'publicly available' does not mean available for free and that ensuring free, prior and informed consent before accessing can still be required, as well as benefit-sharing.[171]

Since discoveries are not patentable, it can be impossible for indigenous communities to patent their knowledge, and there are a vast number of cases where third parties have been able to patent an invention based on traditional knowledge.[172] This is seen in the previously discussed case concerning the Rosy Periwinkle.[173] Western pharmaceutical companies were granted patents for discovering that the flower's alkaloids were able to stop cell division and could be used in cancer treatments, although indigenous healers had used the flower for similar medical purposes long before.[174] However, granted patents have been revoked in some instances where the invention was based on traditional knowledge and could not be considered new or inventive. The Technical Board of Appeal to the European Patent Office revoked in 2005 a patent regarding anti-pest effects on plants by using oil from the Neem tree (*Azadirachta indica*) as it was based on traditional knowledge. The Neem Tree had been used for over 2000 years in India for various purposes, e.g., as a pesticide. The Technical Board of Appeal held that the invention lacked an inventive step.[175] In 1998 the US Patent

[170] Darrell Addison Posey and Graham Dutfield, *Beyond Intellectual Property: Toward Traditional Resource Rights for Indigenous Peoples and Local Communities* (International Development Research Centre 1996) 79.
[171] CBD WGABS 8 (n 36) [122].
[172] Basmati rice, Enola beans, Camu Camu, Kwao Krua, Artemisia Judaica, Hoodia and Ayahuasca, see Robinson (n 5) 47–70.
[173] See section 2.3.1 above.
[174] Kiene (n 48) 15–16.
[175] *Decision of the Technical Board of Appeal 332* [2005] European Patent Office T 0416/01-3.3.2 20-21; Philip Schuler, 'Biopiracy and Commercialization of Ethnobotanical Knowledge' in J Michael

and Trademark Office revoked a patent regarding the use of turmeric for wound healing it had granted in 1995.[176] It was withdrawn after India's Council of Scientific and Industrial Research proved that turmeric had been used for the same purpose for centuries in India.[177]

3.6.2. The World Intellectual Property Organization

The World Intellectual Property Organization (WIPO) has 193 member states[178] and promotes global protection of intellectual property and ensures administrative cooperation between the member states.[179] WIPO supports both positive and defensive protection of traditional knowledge. Positive protection is the ability for indigenous peoples and local communities to protect their traditional knowledge under intellectual property law and the ability to decide who can access their knowledge as well as ensure benefit-sharing when it is utilised. Defensive protection ensures that third parties do not obtain intellectual property protection over traditional knowledge.[180]

The Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore was established in 2000 with the aim to create a forum where WIPO member states could discuss issues concerning intellectual property rights and traditional knowledge. The intension was to create a legal document that would ensure the protection of traditional knowledge,[181] as traditional knowledge is often informal and not protected by the established intellectual property system.[182] However, twenty years later an

Finger and Philip Schuler (eds), *Poor People's Knowledge: Promoting Intellectual Property in Developing Countries* (Washington, DC: World Bank 2003) 160.

[176] Hari Har P Cohly and Suman K Das, 'Use of Turmeric in Wound Healing' US5401504, United States Patent and Trademark Office, 28 March 1995; WTO, 'The Protection of Traditional Knowledge and Folklore, Summary of Issues Raised and Points Made' note by the secretariat (9 March 2006) IP/C/W/370/Rev.1 [21].

[177] KS Jayaraman, 'US Patent Office Withdraws Patent on Indian Herb' (1997) 389 Nature 6.

[178] WIPO, 'Member States' (*WIPO*) <www.wipo.int/members/en/> accessed 3 July 2020.

[179] Convention Establishing the World Intellectual Property Organization (adopted 14 July 1967, entered into force on 26 April 1970) 11846 UNTS 828 (WIPO Convention) art 3.

[180] WIPO, *Intellectual Property and Genetic Resources, Traditional Knowledge and Traditional Cultural Expressions: Overview.* (WIPO 2015) 22.

[181] WIPO, 'The WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore' (WIPO 2015) Background Brief No. 2 1.

[182] WIPO, 'Traditional Knowledge Background Brief' (n 169).

agreement has still not been adopted[183] due to political unwillingness, different views on the subject and the complex nature of the issue as intellectual property law, traditional knowledge and genetic resources are all separate topics but also interlinked. This requires a high degree of national and international knowledge.[184]

The objective of the draft articles on the protection of traditional knowledge is to provide and support sufficient balance and adequate protection of traditional knowledge within the intellectual property system in accordance with national law. This includes protection against misappropriation, failure to share benefits and incorrectly granting intellectual property rights over traditional knowledge.[185] It is the member state that shall protect their domestic traditional knowledge from misappropriation and ensure that benefits are shared in accordance with national law.[186] Protecting traditional knowledge only at an international level is not enough as many indigenous communities have their own customary rules regarding the use and distribution of their knowledge. Hence, traditional knowledge needs to be protected also at the national level where customary laws can be respected.[187] If traditional knowledge is being used without the consent of the indigenous community, the community shall be able to request national protection.[188] Moreover, the origin of the invention is to be disclosed if so required by national law.[189] The draft articles support the creation of national traditional knowledge databases, where indigenous communities can submit their knowledge, to hinder patents being granted for inventions based on traditional knowledge.[190] It is unclear when and in what form the draft articles will come into force, WIPO has renewed the mandate for the Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore for 2020-2021 to finalise the agreement.[191]

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[183] Assemblies of the Member States of WIPO, 'Agenda Item 20, Report on the Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore (IGC) Decision' (30 September–9 October 2019) Fifty-Ninth Series of Meetings 1.
[184] Wend Wendland, 'Protecting Indigenous Knowledge: A Personal Perspective on International Negotiations at WIPO' [2019] WIPO Magazine <www.wipo.int/wipo_magazine/en/2019/06/article_0004.html> accessed 3 July 2020.
[185] WIPO IGC 40, 'The Protection of Traditional Knowledge: Draft Articles' Document prepared by the Secretariat (19 June 2019) WIPO/GRTKF/IC/40/18 art 7.
[186] WIPO Draft Articles (n 185) art 10, 15.
[187] WIPO, 'Customary Law and Traditional Knowledge' (2016) Background Brief No. 7 3.
[188] WIPO Draft Articles (n 185) art 10.
[189] WIPO Draft Articles (n 185) art 15.
[190] WIPO Draft Articles (n 185) art 10.
[191] Assemblies of the Member States of WIPO (n 183) 1.

WIPO has also supported the protection of traditional knowledge by documentation. By documenting traditional knowledge, the community can protect its cultural and economic interests, have evidence of prior art, ensure benefit-sharing, preserve the knowledge for future generations and demonstrate an existing right to land and natural resources.[192] Documenting traditional knowledge is a process where traditional knowledge is "identified, collected, organised, registered or recorded in some way, as a means to dynamically maintain, manage, use, disseminate and/or protect [traditional knowledge] according to specific goals".[193] Documentation does not automatically mean that the knowledge is in the public domain and the holders of the knowledge lose their proprietary rights. Thus, knowledge can be documented and still withheld from the public.[194] Documentation can be a useful protection tool, as traditional knowledge can easily be overlooked when granting patents as the knowledge might not be easily accessible. In some jurisdictions, traditional knowledge is not legally defined as prior art unless it is written down.[195] It is crucial to respect customary laws, and community practices before and during the documentation process as documentation in itself might not ensure legal protection.[196] Ensuring prior, free and informed consent before starting the documentation process is vital, and the Convention on Biological Diversity, the Nagoya Protocol, the ILO Convention 169 and the UN Declaration on the Rights of Indigenous Peoples can be used for guidance.[197]

[192] WIPO, 'Documenting Traditional Knowledge – A Toolkit' (WIPO 2007) 7, 9, 14.
[193] WIPO, 'Documenting Traditional Knowledge' (n 192) 9.
[194] WIPO, 'Documenting Traditional Knowledge' (n 192) 13.
[195] WIPO, 'Documenting Traditional Knowledge' (n 192) 14.
[196] WIPO, 'Documenting Traditional Knowledge' (n 192) 10.
[197] WIPO, 'Documenting Traditional Knowledge' (n 192) 15.

4. PROTECTING TRADITIONAL KNOWLEDGE BY USING COMMUNITY PROTOCOLS

4.1. Community Protocols

Community protocols are written documents conducted by indigenous peoples and local communities to protect their traditional knowledge and cultural diversity. Community protocols codify their traditional knowledge and express how the community grants access and decides on benefit-sharing. By developing a community protocol, the community aim to ensure lawful access to their resources and that their knowledge was not be misappropriated or used contrary to their values.[198] The content of the document is dependent on the community; what they want to achieve, what their values are and what they want to convey to third parties. It can state the communities' fundamental ecological, cultural and spiritual values, their visions for future development or state how the continuity of the community is dependent on access to traditional knowledge and natural resources.[199] There are no drafting requirements and the community can decide on the layout and the content of the protocol. State and private institutions frequently find traditional knowledge to be superstition, and community protocols can function as an intercultural translation tool between the different parties.[200] Community protocols are hence a legal tool that can help indigenous communities preserve their rights by informing both the community and third parties about indigenous rights under customary, national and international law.[201]

They are often created in co-operation with an NGO as extensive legal knowledge is required. However, as it is developed based on the community, the NGO cannot take over the process or use a standardised document. The development process can also provide an opportunity for older generations to inform younger generations about the community and their traditions.[202]

[198] Bavikatte and Jonas (n 9) 32.
[199] Jael Makagon, 'Community Protocols Toolbox' (Natural Justice 2016) booklet 3, 1-2.
[200] Parks (n 70) 156.
[201] Parks (n 70) 155; Morgera, Tsioumani and Buck (n 97) 221.
[202] Morgera, Tsioumani and Buck (n 97) 221–222.

Community protocols are often based on oral traditions and customary practices that have existed in the community and sustained the biodiversity for generations. However, as states, organisations and researchers tend to overlook oral traditions, a community protocol can provide the same information but in a written format.[203] By conducting a community protocol before negotiating with third parties, the community can avoid drawbacks a private contract generally create. Private contracts are often unequal as the community might not have access to the same legal and monetary resources as a state or a company, and the community might not know about their rights under national and international law.[204]

After lobbying by the South African NGO Natural Justice community protocols were included in the Nagoya Protocol. Natural Justice had heard about agreements being developed by indigenous communities in Latin America and used when negotiating with third parties. African governments supported the idea of community protocols as they were afraid that companies would enter into agreements with indigenous peoples and that there would be no way for the state to know if the contract was conducted in accordance with community laws. Some indigenous peoples were afraid that the development of a written document would interfere with their oral traditions, however, in the end, they concluded that a written document would clarify their position and enable the communities to negotiate directly with third parties. Hence, the community would not have to rely on the state negotiating on their behalf due to the community's unwritten rules on consent and benefit-sharing being unclear.[205]

The Nagoya Protocol recognises both community protocols and mutually agreed terms.[206] They can have similar content; however, community protocols are more holistic and conducted by the community to establish what their knowledge is, how to access their consent and what benefit-sharing means to the community.[207] Mutually agreed terms, on the other hand, is a contract between the provider and the user of traditional knowledge

[203] Krystyna Swiderska, 'Consent and Conservation: Getting the Most from Community Protocol' (IIED 2012) <http://pubs.iied.org/17137IIED> 2.
[204] Tzen Wong and Graham Dutfield (eds), *Intellectual Property and Human Development: Current Trends and Future Scenarios* (Cambridge University Press 2010) 149; Morgera, Tsioumani and Buck (n 97) 222.
[205] Aguilar Delgado (n 12), 398-399.
[206] Nagoya Protocol art 5, 6, 7, 12, 18.
[207] Greiber and others (n 33) 141.

expressing the exact terms for the sharing of benefits and proves that both parties approve that free, prior and informed consent was obtained before the knowledge was accessed.[208]

4.2. The International Legal Framework for Community Protocols

Of the international legal instruments that regard traditional knowledge, it is only the Nagoya Protocol that directly refers to community protocols. However, the Conference of the Parties to the CBD has referred to community protocols when addressing the implementation of Article 8(j) of the CBD. To examine how community protocols are regulated in international law, and how international instruments and organisations regard and support community protocols, this section will first address decisions and recommendations by the Conference of the Parties to the CBD, and after that, the Nagoya Protocol.

4.2.1. The Convention on Biological Diversity

The Conference of the Parties has several times encouraged the development of a *sui generis* system for the protection of traditional knowledge by taking into account and by supporting the development of community protocols.[209] The Mo'otz Kuxtal Voluntary Guidelines are intended to guide the implementation of Article 8(j) of the Convention, but does not expand the obligations under the Convention.[210] The Mo'otz Kuxtal Guidelines endorses the use of community protocols and clarifies what community protocol entails under the CBD. The Guidelines holds that community protocols, together with customary laws and national legislation, should be taken into account both when accessing the knowledge and when deciding on benefit-sharing, as a community protocol can provide guidance on the community perspective and offer the required respect of indigenous peoples, in addition to their full and active participation, which is fundamental when developing a relationship

[208] Glowka, Burhenne-Guilmin and Synge (n 28) 80.
[209] COP 10 Decision X/41, 'Elements of Sui Generis Systems for the Protection of Traditional Knowledge' (Nagoya 2010) UNEP/CBD/COP/DEC/X/41 [2]; COP 12 Decision XII/12 (n 80) 15.
[210] COP 13 Decision XIII/18 (n 9) [3], [5].

between users and providers of traditional knowledge. Community protocols and practices of indigenous peoples should be seen as significant and real.[211]

The Mo'otz Kuxtal Guidelines contains compliance measures, but do not suggest the use of community protocols as a compliance measure. Instead suggested measures are "capacity-building, awareness-raising and information-sharing within indigenous peoples and local communities, codes of conduct and best practice codes of users; model contractual clauses for mutually agreed terms to promote equity between the negotiating positions of the parties; minimum standards for access and benefit-sharing agreements". Nevertheless, it is stated that governments and third parties may wish to consider the complex nature of traditional knowledge and customary laws.[212]

The Mo'otz Kuxtal Guidelines have advanced the work by the Working Group on Article 8(j) regarding the protection of traditional knowledge by emphasising the potential role of community protocols when accessing traditional knowledge.[213] The Working Group on Article 8(j) has adopted two recommendations referring to the use of community protocols, firstly, the Rutzolijirisaxik Voluntary Guidelines and secondly, a glossary of relevant key terms and concepts within the context of Article 8(j) containing a definition on community protocols as stated in the Mo'otz kuxtal Guidelines.[214] They were both adopted by the Conference of the Parties to the CBD at its 14th meeting in 2018.[215] The Mo'otz Kuxtal Guidelines have, however, been criticised for being circular as they are meant to develop national law, but, should be implemented and understood in accordance with national law.[216]

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[211] COP 13 Decision XIII/18 (n 9) [4], [8]-[9], [23(b)].
[212] COP 13 Decision XIII/18 (n 9) [27], [28a].
[213] CBD WG8J 11 Recommendation 11/2 (n 38) 7.
[214] CBD WG8J 10, 'Report of the Ad Hoc Open-Ended Inter-Sessional Working Group on Article 8(j) and Related Provisions of the Convention on Biological Diversity on Its Tenth Meeting' (Montreal 2017) CBD/WG8J/10/11.
[215] COP 14 Decision 14/12, 'The Rutzolijirisaxik Voluntary Guidelines for the Repatriation of Traditional Knowledge of Indigenous Peoples and Local Communities Relevant for the Conservation and Sustainable Use of Biological Diversity' (2018 Sharm El-Sheikh) CBD/COP/DEC/14/12; COP 14 Decision 14/13 (n 26).
[216] Elsa Tsioumani, 'CBD: The UN Biodiversity Conference' (2017) 47 Environmental Policy and Law 58, 61; Elisa Morgera, 'Reflections on 2016 UN Biodiversity Conference (Part II): Assessing the Mo'otz Kuxtal Guidelines on Benefit-Sharing from the Use of Traditional Knowledge' (*BeneLex Blog*, 1 March 2017) <https://benelexblog.wordpress.com/2017/03/01/reflections-on-2016-un-biodiversity-conference-part-ii-assessing-the-mootz-kuxtal-guidelines-on-benefit-sharing-from-the-use-of-traditional-knowledge/> accessed 23 May 2020.

The objective of the Rutzolijirisaxik Voluntary Guidelines is "to facilitate the recovery of traditional knowledge relevant for the conservation and sustainable use of biological diversity".[217] It regards the exchange of publicly available information on the conservation and sustainable use of biological diversity, including, traditional knowledge and when possible, the repatriation of information.[218] Repatriation entails the return of traditional knowledge to where it originated from. The guidelines are intended to be used by anyone storing traditional knowledge, from governments to museums, botanical gardens and private collections.[219] The guidelines are to be interpreted and used *in casu* depending on each states' political, legal, environmental and cultural diversity and by considering the states indigenous peoples and their community protocols. Successful repatriation requires the respect of traditional knowledge and community protocols, which can be used to clarify the repatriation process. Institutions, such as governments and museums, can adapt a framework agreement that guides the repatriation process. If the repatriation process is based on both a framework agreement and a community protocol it is more likely that both parties are satisfied.[220] The Rutzolijirisaxik Guidelines refers to the Mo'otz kuxtal Guidelines for advice regarding accessing publicly available knowledge and the equitable sharing of benefits. Hence, community protocols should be taken into account both when accessing the knowledge and when deciding on benefit-sharing.[221] The Rutzolijirisaxik Guidelines does not refer to community protocols as a compliance measure to ensure lawful access and benefit-sharing, nor do they regard community protocols as a mechanism that may facilitate the repatriation of traditional knowledge.

The Conference of the Parties has also endorsed the use of community protocols when indigenous peoples engage with third parties concerning the establishment of protected areas for environmental reasons. When protected areas are established without the indigenous community, the community's access to natural resources and their traditional knowledge can be restricted. Hence, community protocols can be used to prevent this by creating a dialogue between the parties, which can lead to shared aims and collaborations.[222]

[217] COP 14 Decision 14/12 (n 215) [7].
[218] COP 14 Decision 14/12 (n 215) 2.
[219] COP 14 Decision 14/12 (n 215) [9]-[10].
[220] COP 14 Decision 14/12 (n 215) [11], [17c], [38], [40]-[41].
[221] COP 14 Decision 14/12 (n 215) [53]-[54].
[222] COP 12 Decision XII/12 B, 'Article 8(j) and Related Provisions' (Pyeongchang 2014) UNEP/CBD/COP/DEC/XII/12 6.

In 2010 the Conference of the Parties adopted the Aichi Biodiversity Targets. Target 18 holds that "[b]y 2020, the traditional knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biodiversity, and their customary use of biological resources, are respected, subject to national legislation and relevant international obligations, and fully integrated and reflected in the implementation of the Convention with the full and effective participation of indigenous and local communities, at all relevant levels."[223] The Conference of the Parties has acknowledged the essential use of *sui generis* systems to achieve Target 18 and urges states to recognise and encourage the development of *sui generis* systems by indigenous peoples, including the development of community protocols.[224]

In 2019 the Working Group on Article 8j recommended the adoption of a new program concerning the implementation of Article 8(j). The program would regard the effective implementation of the Voluntary Guidelines, in accordance with national legislation, and build on Aichi Biodiversity Target 18. The objective is to promote a just implementation of Article 8(j).[225] One of the suggested elements of the program is "to promote the fair and equitable sharing of benefits arising from the use of genetic resources associated with traditional knowledge".[226] The Conference of the Parties will address the new program to the CBD at its 15th meeting in 2021.[227] The program will not, as it now stands, concern the use of community protocols, demonstrating that community protocols are not a primary instrument when implementing rights and obligations under Article 8(j) of the CBD.

Mechanisms for monitoring and reviewing the implementation of the CBD are sparse. Article 26 is the primary mechanism for reviewing the progress made by state parties.[228] The provision holds that "[e]ach Contracting Party shall […] present to the Conference of the Parties, reports on measures which it has taken for the implementation of the provisions of this Convention and their effectiveness in meeting the objectives of this Convention." Thus,

[223] COP 10 Decision X/2, 'The Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets' (Nagoya 2010) UNEP/CBD/COP/DEC/X/2 9.
[224] COP 12 Decision XII/12 E, 'Article 8(j) and Related Provisions' (Pyeongchang 2012) UNEP/CBD/COP/DEC/XII/12 [1], [6].
[225] CBD WG8J 11 Recommendation 11/2 (n 38) 2, 4.
[226] CBD WG8J 11 Recommendation 11/2 (n 38) 6.
[227] The meeting documents for the Fifteenth meeting of the Conference of the Parties to the Convention on Biological Diversity will be published at <www.cbd.int/meetings/COP-15>.
[228] COP 14 Decision 14/29, 'Review Mechanisms' (Sharm El-Sheikh 2018) CBD/COP/DEC/14/29 1.

each contracting party is obligated to report on the implementation of the CBD which gives the Conference of the Parties, or any other committees established by the Conference of the Parties, an opportunity to comment and review instances of non-compliance. There are no, publicly available, reports of non-compliance regarding the use of community protocols under the CBD.

4.2.2. The Nagoya Protocol

Article 12 and 21 of the Nagoya Protocol recognises the use of community protocols. Article 12 concerns traditional knowledge associated with genetic resources. Article 12(1) and 12(3)(a) holds that

> 1. In implementing their obligations under this Protocol, Parties shall in accordance with domestic law take into consideration indigenous and local communities' customary laws, community protocols and procedures, as applicable, with respect to traditional knowledge associated with genetic resources.
> 3. Parties shall endeavour to support, as appropriate, the development by indigenous and local communities, including women within these communities, of:
>
> (a) Community protocols in relation to access to traditional knowledge associated with genetic resources and the fair and equitable sharing of benefits arising out of the utilization of such knowledge;

The provision holds that member states shall consider community protocols when implementing the Nagoya Protocol and support the development of community protocols. Article 12(1) contains vague wording and holds that parties shall 'take into consideration' community protocols 'as applicable' and 'in accordance with domestic law'. Hence, the parties to the Nagoya Protocol can decide on how they want to comply, but community protocols should be considered when implementing the Protocol. Moreover, states do not have to recognise or apply community protocols but are obligated to decide on mechanisms

to support the understanding of community protocols to ensure the respect for prior, informed consent and benefit-sharing.[229]

Under Article 12(3) parties are obligated to "endeavour to support as appropriate" the development of community protocols. 'As appropriate' was included to indicate that not all communities will need the support of the state, and it would be inappropriate for the state to intervene if the community does not need the support, but, if the community needs state-support, the state is obligated to offer such assistance.[230] States are encouraged to comply with the provision, however, they are not obligated to.[231]

Article 21 regards awareness raising and holds that "each Party shall take measures to raise awareness of the importance of genetic resources and traditional knowledge associated with genetic resources, and related access and benefit-sharing issues. Such measures may include, inter alia: (i) awareness-raising of community protocols and procedures of indigenous and local communities". Hence, states are obligated to promote awareness of the importance of traditional knowledge. Promoting awareness of community protocols is beneficial for indigenous peoples. However, it is also important that third-party stakeholders interested in traditional knowledge are aware of existing community protocols so that they can act in accordance with the community governance system.[232] The implementation of Article 21 is vital as public awareness and education are crucial for the successful implementation of the Nagoya Protocol.[233]

The main challenges when implementing the Nagoya Protocol in respect of indigenous peoples have been "determining how the concept of 'indigenous peoples and local communities' applies at the national level; clarifying the rights of indigenous peoples and local communities over genetic resources and/or traditional knowledge associated with genetic resources; identifying the different groups of indigenous peoples and local communities; understanding the way they are organized; and linking traditional knowledge

[229] Morgera, Tsioumani and Buck (n 97) 217–219.
[230] Greiber and others (n 33) 141.
[231] Morgera, Tsioumani and Buck (n 97) 222; Greiber and others (n 33) 139–140; UNEP and EDO NSW (n 14) 24.
[232] Greiber and others (n 33) 203.
[233] NP MOP 1 Decision 9/1, 'Measures to Raise Awareness of the Importance of Genetic Resources and Associated Traditional Knowledge (Article 21)' (Pyeongchang 2014) UNEP/CBD/NP/COP-MOP/DEC/1/9 1.

with the holder/s of such knowledge."[234] The Meeting of the Parties to the Nagoya Protocol has held that community protocols can help address some of these challenges relating to traditional knowledge and indigenous peoples and local communities. The Meeting of the Parties held that community protocols could be beneficial for indigenous communities, governments and third parties. Indigenous peoples can express their values, practices and aspirations, governments can implement the provisions of the Nagoya Protocol that relates to indigenous peoples and traditional knowledge, and for third parties, the community protocol can clarify the procedures for accessing the knowledge. Hence, it is important for states to support the development of community protocols and to ensure that they are developed in accordance with community procedures. Indigenous peoples have also been invited to engage in the access and sharing of benefits processes in accordance with their customary laws and to make community protocol available through the Access and Benefit-Sharing Clearing-House.[235]

At the first Meeting of the Parties, one of the measures required to effectively implement the Nagoya Protocol concerning the needs of indigenous peoples was the development of community protocols in relation to the access and benefit-sharing regulations of the Nagoya Protocol. Development activities regarding community protocols include workshops for indigenous communities to discuss how to develop a community protocol.[236]

The Nagoya Protocol does not contain any measures that would provide remedies to indigenous peoples whose knowledge was accessed against the provisions of the Nagoya Protocol. There are no provisions that ensure the right of indigenous peoples and national courts have to settle disputes that can involve different jurisdictions as well as customary laws. Hence, the effective implementation of the Nagoya Protocol depends on the state's willingness and judicial capacity.[237]

There is no explicit review or monitoring process under the Nagoya Protocol concerning specifically community protocols. Article 30 concerns individual states compliance with

[234] NP MOP 3 Decision 3/1, 'Assessment and Review of the Effectiveness of the Protocol (Article 31)' (Sharm El-Sheikh 2018) CBD/NP/MOP/DEC/3/1 6.
[235] NP MOP 3 Decision 3/1 (n 234) 1, 3, 8.
[236] NP MOP 1 Decision 8/1, 'Measures to Assist in Capacity-Building and Capacity Development (Article 22)' (Pyeongchang 2014) UNEP/CBD/NP/COP-MOP/DEC/1/8 13, 18.
[237] Tobin (n 13) 148, 150.

their obligations under the Nagoya Protocol and the objective is to promote compliance and address issues of non-compliance. The Compliance Committee carries out the objectives.[238] The Committee can receive submissions on compliance and non-compliance from the state itself, from other states and from the Meeting of the Parties to the Nagoya Protocol.[239] When considering measures, the Compliance Committee shall take into consideration the capacity of the state, if the state concerned is a developing state and the degree and frequency of non-compliance. The Committee can offer advice, request or assist the state in making a compliance action plan and ask the party to submit progress reports. The Committee can also issue a statement of concern. The Meeting of the Parties shall review the effectiveness of these measures and take necessary action.[240] Compliance measures focus more on what the state can do in the future to avoid non-compliance, than punishing past instances of non-compliance.[241] The Compliance Committee has held that community protocols can help in the implementation of the Nagoya Protocol as relating to indigenous peoples.[242]

The Subsidiary Body on Implementation held in 2018 that further work was needed to "[t]o support the full and effective participation of indigenous peoples and local communities in the implementation of the Protocol", including by supporting the development of community protocols.[243] Implementing the provisions relating to access and benefit-sharing was seen as particularly challenging, and the Subsidiary Body on Implementation held that community protocols addressing access and benefit-sharing could be of assistance.[244]

[238] NP MOP 1 Decision 1/4, 'Cooperative Procedures and Institutional Mechanisms to Promote Compliance with the Nagoya Protocol and to Address Cases of Non-Compliance' (Pyeongchang 2014) UNEP/CBD/NP/COP-MOP/DEC/1/4 2.
[239] NP MOP 1 Decision 1/4 (n 238) 4.
[240] NP MOP 1 Decision 1/4 (n 238) 5.
[241] Morgera, Tsioumani and Buck (n 97) 348.
[242] NP Compliance Committee, 'Report of the Compliance Committee under the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from Their Utilization on the Work of Its Second Meeting' (2018) CBD/ABS/CC/2/4 5.
[243] CBD SBI Recommendation 2/2 (n 99) [5.c].
[244] CBD SBI Recommendation 2/2 (n 99) [29].

4.3. National Legal Frameworks Relating to the Support and Development of Community Protocols

To assess the use of community protocols within states is challenging as states have reported on protocols being developed but not on the use of them. How community protocols are applied and upheld depends on each member state and their national legal framework, as the use of community protocols are subject to national law. The following section will, therefore, analyse if and how parties to the Nagoya Protocol consider and support the use and development of community protocols based on interim national reports submitted by each state to the Access and Benefit-sharing Clearing-House.

4.3.1. How the Analysis was Conducted

The Nagoya Protocol established the Access and Benefit-sharing Clearing-House as a means to share information relating to access and benefit-sharing and to transparently inform on how each party has implemented the Nagoya Protocol.[245] The first Meeting of the Parties to the Nagoya Protocol decided in 2014 that all member states have to submit an Interim National Report on the Implementation of the Nagoya Protocol[246] to the Access and Benefit-sharing Clearing-House.[247]

Three of the mandatory questions of the interim national report are relevant when investigating the support and consideration of community protocols at the national level. Firstly, does the state have indigenous and local communities, as only states with indigenous peoples and local communities have to support the development of community protocols and consider them when implementing the Nagoya Protocol.[248] Secondly, when implementing the Protocol, in accordance with domestic law, is the state taking into consideration indigenous and local communities' customary laws, community protocols and procedures concerning traditional knowledge associated with genetic resources as provided

[245] Nagoya Protocol art 14.
[246] All interim national reports are available at: CBD Access and Benefit-sharing Clearing-House, 'Interim National Reports on the Implementation of the Nagoya Protocol' (*Access and Benefit-sharing Clearing-House*) <https://absch.cbd.int/search/nationalRecords?schema=absNationalReport> accessed 9 June 2020.
[247] NP MOP 1 Decision 3/1, 'Monitoring and Reporting (Article 29)' (Pyeongchang 2014) UNEP/CBD/NP/COP-MOP/DEC/1/3 1.
[248] NP MOP 1 Decision 3/1 (n 247) 14, question 37.

in Article 12(1).[249] Thirdly, does the state support the development of community protocols by indigenous and local communities as stated in Article 12(3).[250]

When answering the questions, the state can select between 'yes', 'no', 'not applicable' or 'no selection made', further information can be provided after the initial answer. For this study; 'no', 'not applicable' and 'no selection made' have been categorised as 'no'. However, 'not applicable' is not of relevance in this instance as it has only been selected by states that do not have indigenous peoples and local communities. Only when the state has selected 'yes', has it been categorised as such. Additional information provided in conjunction with the question has not affected the categorisation of 'yes' or 'no'. However, it has been used when further portraying how states support community protocols and the reasons for not implementing this part of the Nagoya Protocol.

Article 12(1) of the Nagoya Protocol requires states to consider indigenous communities' customary laws, community protocols and procedures when implementing the Nagoya Protocol. An affirmative answer does not necessarily mean that the state considers them all equally. Hence, it has not been possible to separate community protocols from community procedures and customary laws, and all states that answered affirmatively under this question is categorised as 'yes'.

Each state has submitted the information between 2017 and 2020, and the evaluation is conducted based on information available as of the **9th of June 2020**. The analyse is solely based on the information provided by the states in the interim national report.

4.3.2. Domestic Regulations on the use of Community Protocols

The focus of this analysis is on member states of the Nagoya Protocol that have submitted the interim national report and have indigenous peoples and local communities, as Article 12 of the Nagoya Protocol only contains obligations for states with indigenous peoples and local communities and does not regard users of the knowledge. Consequently, only states

[249] NP MOP 1 Decision 3/1 (n 247) 15, question 40.
[250] NP MOP 1 Decision 3/1 (n 247) 16, question 42.

with indigenous peoples have to consider and support the development of community protocols when implementing the Nagoya Protocol.

Table 1 demonstrates how many states that are Nagoya Contracting Parties who have submitted a report and have indigenous peoples and local communities consider community protocols when implementing the Nagoya Protocol as well as how many states support the development of community protocols.

Number of Parties to the Nagoya Protocol	124
Number of Parties that have submitted the interim national report on the implementation of the Nagoya Protocol	94[251]
Number of Parties that have indigenous and local communities (question 37)	65[252]
Number of Parties that have indigenous and local communities and when implementing the Protocol, in accordance with domestic law, is taking into consideration indigenous and local communities' customary laws, community protocols and procedures with respect to traditional knowledge associated with genetic resources as provided in Article 12(1) of the Nagoya Protocol (question 40)	39[253]

[251] Parties that have not submitted a report: Afghanistan, Bolivia, Central African Republic, Chad, Democratic People's Republic of Korea, Ecuador, Eritrea, Fiji, Ghana, Greece, Jordan, Lebanon, Luxembourg, Malaysia, Maldives, Marshall Islands, Mauritius, Federated States of Micronesia, Nepal, Palau, Romania, Serbia, Solomon Islands, Syrian Arab Republic, Tonga, Tuvalu, United Arab Emirates, United Republic of Tanzania, Vanuatu, Zimbabwe.

[252] Angola, Antigua and Barbuda, Argentina, Benin, Bhutan, Botswana, Burkina Faso, Burundi, Cambodia, Cameroon, China, Comoros, Congo, Cuba, Côte d'Ivoire, Democratic Republic of the Congo, Djibouti, Dominican Republic, Egypt, Eswatini, Ethiopia, Finland, France, Gabon, the Gambia, Guatemala, Guinea-Bissau, Guyana, Honduras, Indonesia, Japan, Kenya, Kuwait, Kirgizstan, Lao People's Democratic Republic, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mexico, Mongolia, Mozambique, Namibia, Niger, Norway, Pakistan, Panama, Peru, Philippines, Samoa, Sao Tome and Principe, Senegal, Sierra Leone, South Africa, Sudan, Sweden, Tajikistan, Togo, Uganda, Uruguay, Venezuela, Vietnam, Zambia.

[253] Angola, Argentina, Benin, Bhutan, Burkina Faso, Burundi, Cambodia, Cameroon, China, Democratic Republic of Congo, Djibouti, Dominican Republic, Egypt, Eswatini, Ethiopia, Finland, France, the Gambia, Guyana, Indonesia, Kenya, Kuwait, Kyrgyzstan, Liberia, Madagascar, Malawi, Mexico, Mozambique, Namibia, Norway, Peru, Philippines, Samoa, Sierra Leone, South Africa, Sweden, Uganda, Venezuela, Zambia.

Number of Parties that have indigenous and local communities and supports the development of community protocols by indigenous and local communities in accordance with Article 12(3) of the Nagoya Protocol (question 42)	41[254]
Number of Parties that have indigenous and local communities and answered no on both question 40 and 42	13[255]

Table 1. Overview of state parties to the Nagoya Protocol and their answer to Q37, Q40 and Q42 on the interim national report.

As seen in Table 1, of the states that have submitted a report 65 states (69 %) have indigenous peoples and local communities. Of the states that have submitted a report and have indigenous and local communities, 39 states (60 %) answered that they consider indigenous communities' customary laws, community protocols and procedures when implementing the Nagoya Protocol, in accordance with Article 12(1). For example, Benin, Bhutan, Kenya, Samoa and South Africa stated in their interim national report that they have established legislation that recognises and respects the use of community protocols. In Benin, national laws on access and benefit-sharing hold that community protocols have to be respected and community protocols are identified as a tool that determines how users receive access to traditional knowledge, and they establish communal rights. In Bhutan, the national access and benefit-sharing policy require the development of community protocols to be used as a guide in access and benefit-sharing situations. The Kenyan Constitution acknowledges community protocols and community procedures. Samoa states that respect for community protocols and community procedures is part of their culture. In South Africa, the Departments of Science and Technology and Traditional Affairs ensures that community protocols and procedures are considered.[256]

Finland, Norway and Sweden all held that they consider indigenous communities' customary laws, community protocols and procedures when implementing the Nagoya Protocol.

[254] Angola, Antigua and Barbuda, Argentina, Benin, Bhutan, Burkina Faso, Burundi, Cambodia, Cameroon, China, Comoros, Congo, Dominican Republic, Eswatini, Ethiopia, France, the Gambia, Guatemala, Guinea-Bissau, Indonesia, Kenya, Kyrgyzstan, Lao People's Democratic Republic, Lesotho, Liberia, Madagascar, Malawi, Mauritania, Mexico, Mozambique, Namibia, Panama, Philippines, Samoa, Senegal, Sierra Leone, South Africa, Tajikistan, Uruguay, Venezuela, Vietnam.
[255] Botswana, Cuba, Côte d'Ivoire, Gabon, Honduras, Japan, Mali, Mongolia, Niger, Pakistan, Sao Tome and Principe, Sudan, Togo.
[256] Question 40 in the interim national report (n 246) by Benin (report from 2017), Bhutan (2017), Kenya (2017), Samoa (2019) and South Africa (2018).

However, none of them mentions community protocols specifically. In Finland, the Act on the Implementation of the Nagoya Protocol to the Convention on Biological Diversity holds that the use of traditional knowledge shall not "weaken the opportunities of the Sami people to use their rights as an indigenous people to maintain and develop their culture and to engage in their traditional livelihoods." The Norwegian regulation relating to the protection of traditional knowledge demands prior informed consent, and users must access the knowledge in accordance with the indigenous community's access procedure. In Sweden, the government is working on a "proposal for a more comprehensive procedure consultations between public authorities and the Sami".[257]

Some states that answered affirmatively held that there is no current legislative act but stated that a draft proposal includes these obligations or that a current act is being amended.[258]

Of the states that have submitted a report and have indigenous peoples and local communities, 41 states (63 %) answered that they support the development of community protocols in accordance with Article 12(3) of the Nagoya Protocol (Table 1). Antigua and Barbuda, Bhutan, Indonesia, Kenya, Namibia and Sierra Leone have legislation supporting the development of community protocols. Bhutan has recognised that community protocols are important for indigenous peoples and supports development. Before a community protocol is developed, a workshop is organised to understand the community's customary laws and decision-making processes, and legal regulations are explained. Community protocols are then developed based on the workshop. Indonesia supports the development of community protocols by establishing regulations and guidelines. In Kenya, community protocols are supported by various initiatives to support the management of natural resources and the sharing of benefits. Namibia has an act concerning Access to Biological and Genetic Resources and Associated Traditional Knowledge from 2017 that supports and promotes the development of community protocols to establish a transparent process for how to achieve prior, informed consent, mutually agreed terms and benefit-sharing. Sierra Leone has a Local Act from 2004 that recognises the importance of community protocols.[259]

[257] Question 40 in the interim national report (n 246) by Finland (report from 2018), Norway (2017) and Sweden (2017).
[258] Question 40 in the interim national report (n 246) by Angola (report from 2019), Burundi (2017), the Gambia (2018), Guinea-Bissau (2017), Malawi (2017) and Uganda (2017).
[259] Question 42 in the interim national report (n 246) by Antigua and Barbuda (report from 2017), Bhutan (2017), Indonesia (2017), Kenya (2017), Namibia (2019) and Sierra Leone (2019).

Some states do not have legislation concerning the development of community protocols, but they still support it. Angola is considering different options and how it would fit the current legislation, and Benin is developing a pilot program for community protocols concerning access and benefit-sharing that will later be generalised. Benin is also developing a community protocol template. Burkina Faso and Cameroon are drafting and implementing access and benefit-sharing legislation that will include community protocols. In France, national authorities do not interfere in the development process but support the development of community protocols to ensure the protection of traditional knowledge. Panama, Mexico and Senegal have all organised workshops and meetings where they have discussed and encouraged the development of community protocols. Tajikistan supports the development of community protocols by providing loans for the development of traditional knowledge and the implementation of the Nagoya Protocol.[260]

Of the states that have submitted a report and have indigenous and local peoples, 13 states (20 %) neither consider nor support the development of community protocols (Table 1). Regarding the consideration of community protocols when implementing the Nagoya Protocol, Botswana held that they do not consider community protocols, but that there is an ongoing process to do so in the future. Mali held that they do not support or consider community protocols due to financial reasons. Mongolia does not yet have a law relating to access and benefit-sharing but that there is an ongoing project on the development of an access and benefit-sharing act that will consider community protocols. Niger held that even if they do not have an access and benefit-sharing law, community laws are respected when regarding exploitation and management of shared natural resources. Likewise, Pakistan held that there is not currently a law but that the recognition of community protocols will be addressed in a future legal act. Sudan has not yet approved a law on access and benefit-sharing, but community protocols are considered in a proposal. Moreover, tradition prevails in situations concerning traditional knowledge. Togo held that they have not yet any specific measures, but customary laws are recognised in the management of natural resources.[261]

[260] Question 42 in the interim national report (n 246) by Angola (report from 2019), Benin (2017), Burkina Faso (2018), Cameroon (2017), France (2018), Panama (2018), Mexico (2017), Senegal (2017) and Tajikistan (2019).
[261] Question 40 in the interim national report (n 246) by Botswana (report from 2017), Mali (2017), Mongolia (2017), Niger (2017), Pakistan (2018), Sudan (2017) and Togo (2107).

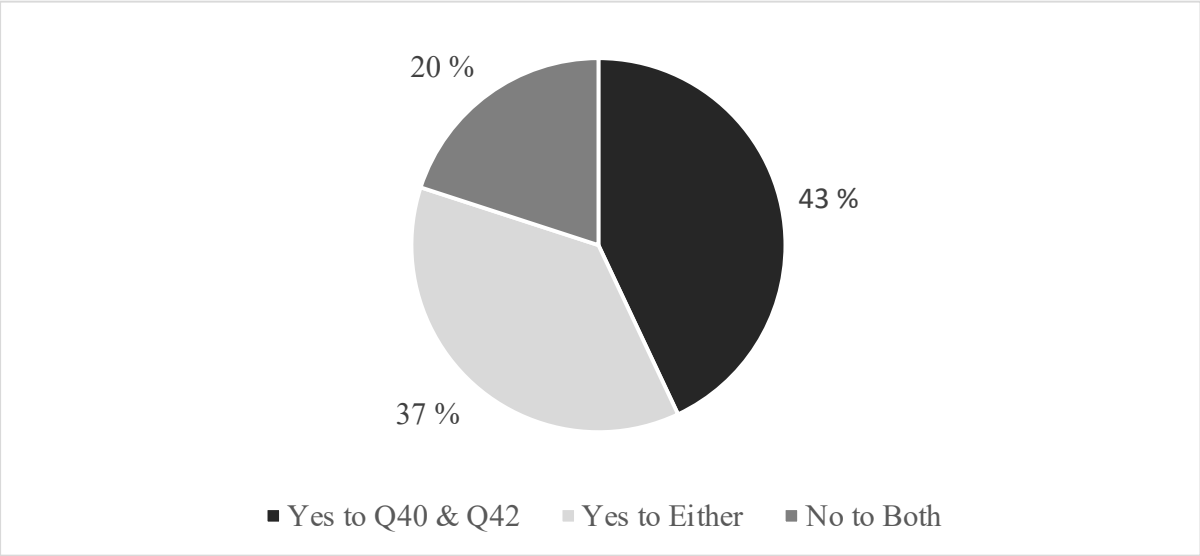

Figure 1. Overview of states with indigenous peoples answers to Q40 and Q42, demonstrated by black as the percentages of states that answered yes to Q40 and Q42, light grey as yes to either Q40 or Q42 and dark grey as no on both question Q40 and Q42.

Figure 1 illustrates that of the states with indigenous peoples and local communities that have submitted an interim national report 43 % held that they both take customary law, community protocols and procedures into consideration when implementing the Nagoya Protocol and support the development of community protocols. 37 % of the states answered that they either take customary law, community protocols and procedures into consideration when implementing the Nagoya Protocol or support the development of community protocols. 20 % of the states answered that they do not consider or support community protocols. The additional information provided by the state does not entail the reason for why some states take customary law, community protocols and procedures into account when implementing the Nagoya Protocol, but does not support the development of community protocols. Some of the states that answered that they only support the development of community protocols held that the reason behind it was the lack of legislation that would require customary law, community protocols and community procedures to be taken into consideration when implementing the Nagoya Protocol.[262]

Figure 2 provides an overview of the regional support of community protocols. It provides information on, firstly, the total number of states that are Nagoya contracting parties, have

[262] Question 40 in the interim national report (n 246) by Comoros (report from 2017), Lesotho (2019), Guatemala (2018), Mauritania (2017) and Uruguay (2017).

submitted an interim national report, and have indigenous and local communities in each region and, secondly, it expresses the number of states that in each region answered yes on respectively question 40 and question 42. It demonstrates that of the 65 states this analysis is based on, more than half are African while all the remaining regions together make up the rest. The figure also shows that except for Europe and North America, the number of affirmative answers for question 40 and 42 are similar.

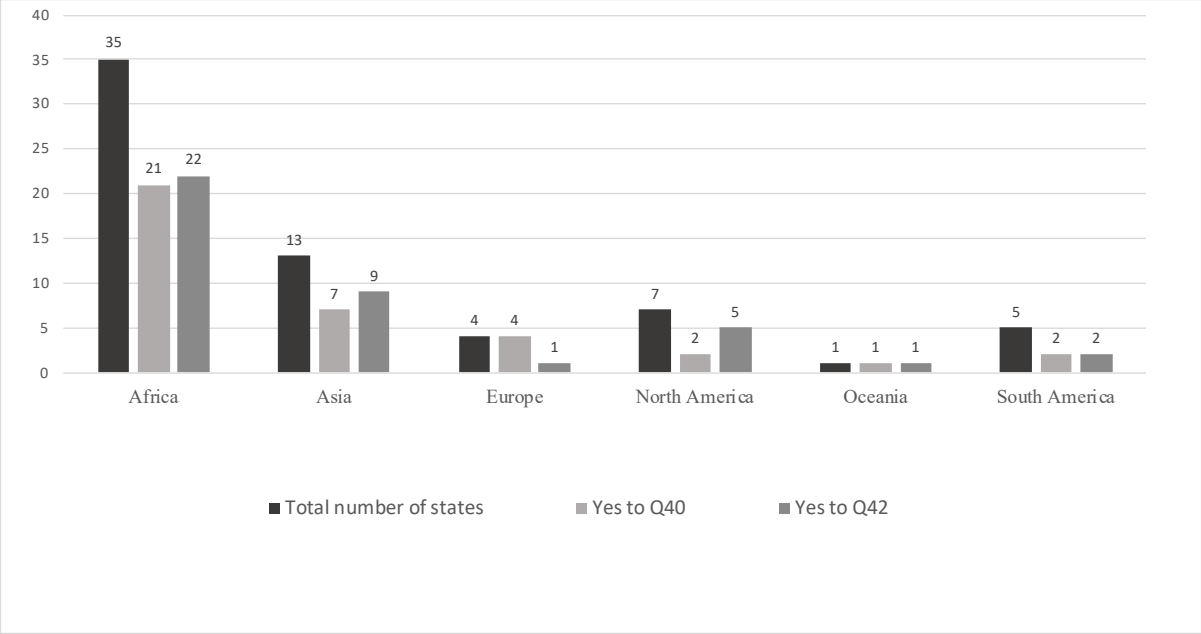

Figure 2. Regional overview of states with indigenous peoples answers to Q40 and Q42, demonstrated by black as the total number of states in each region, light grey as yes to Q40 and darker grey as yes to Q42.

5. CASE STUDIES ON THE USE OF COMMUNITY PROTOCOLS

5.1. The Use of Community Protocols in South Africa

5.1.1. Kukula Traditional Health Practitioners Association

The Kukula Traditional Health Practitioners (Kukula Healers) is a group with over 350 healers in the Bushbuckridge area in north-east South Africa who care for the physical, cultural and spiritual wellbeing of the community. The Bushbuckridge area encompasses several critical biodiversity hotspots. The Kukula Healers develop medicines form local plants and ensures the continuity of medicinal plants by sustainable harvesting methods and by combating poaching and wildfires, which also protects the biodiversity. They guarantee that the use of natural resources will benefit the community as well as future generations, and they have created rules regarding the sharing of knowledge. Additionally, they are responsible for culturally important tasks, such as connecting community members to their ancestors, organising coming of age ceremonies and cleansing ceremonies against evil spirits which contributes to the health of the community.[263]

The Kukula community protocol was developed together with the NGO Natural Justice and the Kruger to Canyons Biosphere management committee in 2009. In May 2009, Kruger to Canyons and Natural Justice met with some of the healers to discuss threats the healers were facing. The healers continued to meet, to express views, and to learn more about their customary laws on conservation and sustainable harvesting, as well as their rights under international law regarding access and benefit-sharing. Before these meetings, the healers had been separated by long distances, different languages, and cultures. The meetings connected them, and they formed an association that today is known as the Kukula Traditional Health Practitioners Association.[264] The knowledge of the health practitioners

[263] Kukula Traditional Health Practitioners Association, 'Biocultural Protocol of the Kukula Traditional Health Practitioners Association' (2018) <https://naturaljustice.org/wp-content/uploads/2018/06/BCP-Kukula-Traditional-Health-Practitioners-Association-English.pdf> 2-3; Rodney Sibuye and others, 'The Bushbuckridge BCP: Traditional Healers Organise for ABS in South Africa' in PLA65: Participatory Learning and Action: Biodiversity and Culture (IIED 2012).

[264] Natural Justice, 'The Kukula Traditional Health Practitioners Association Release Their Updated Biocultural Community Protocol' (*Natural Justice*, 5 July 2018) <https://naturaljustice.org/the-kukula-traditional-health-practitioners-association-release-their-updated-biocultural-community-protocol/> accessed 28 July 2020.

regards different medicinal areas, and the association enables them to collect their knowledge. However, there is not an obligation to share the knowledge. By collecting the knowledge, the community ensures that also future generations will have access to it.[265]

The livelihoods of the health practitioners are threatened by difficulties in accessing their natural resources, biodiversity loss and the utilisation of their traditional knowledge without sharing benefits. The Kukula also face discrimination by the police and Christian institutions. The police arrest them if a patient dies while a Kukula Healer is treating them, and Christian institutions are arguing that the Kukula medicinal practices are against Christian faith.[266]

Accessing medical plants is difficult due to several different land regulations, as there are private, protected and communal land. They cannot access privately owned lands at all. Protected land consists of National Parks and Nature Reserves where there is a great diversity of plants, but the legal framework for accessing the parks is generally unclear. Due to rhino poaching in the nearby Kruger National Park, authorities declined community access to the park to hinder poachers from accessing the park and to protect the Kukula community. Accessing communal land is regulated by traditional leaders and is expensive. As the Kukula is not formally recognised and medical plants are not protected on communal land, it is challenging to harvest plants there. Furthermore, the Kukula is not part of the decision-making processes concerning land regulations.[267]

Access to medical plants is also threatened by over-harvesting and by unsustainable harvest methods. In 2015 the community started discussions with state authorities and managers of the nature reserves and parks. The discussion resulted in a better understanding of each other, and one of the solutions to the problem was to start cultivating plants outside the National Parks. However, this is not possible for all plants.[268] The healers require that they consent before their knowledge is accessed, that a benefit-sharing agreement is constructed and that

[265] Gino Cocchiaro and others, 'Consideration of a Legal "Trust" Model for the Kukula Healers' TK Commons in South Africa' in Jeremy De Beer and others (eds), *Innovation & intellectual property: collaborative dynamics in Africa* (UCT Press in association with the IP Unit, Faculty of Law, University of Cape Town and Deutsche Gesellschaft für Internationale Zusammenarbeit 2014) 160.
[266] Kukula Traditional Health Practitioners Association (n 263) 7.
[267] Kukula Traditional Health Practitioners Association (n 263) 6.
[268] Kukula Traditional Health Practitioners Association (n 263) 8-9; Parks (n 70) 57, 59-60.

their traditional knowledge is protected under intellectual property laws. Furthermore, the community protocol establishes their customary laws, which must be respected when their knowledge is utilised.[269]

The Kukula have successfully used their community protocol when discussing and negotiating with third parties, and they have signed a contract with a local cosmetic company. The Kukula Healers allowed the company to research their traditional knowledge and genetic resources. A benefit-sharing agreement has been entered into, and the company is not allowed to share the knowledge with other parties.[270]

The sustainable use of biological resources is a part of their customary laws. The Kukula Healers believe that the medicine will only take full effect if they can ensure the survival of the plant they are harvesting. Different plants are harvested at different seasons to protect the plant, and they use the plants immediately, never collecting more than they need.[271] They have also been able to prove to the South African government that their practices do not result in over-harvesting, and the government has allowed them to use restricted areas. Additionally, they have started a process with the South Africa Department of Health to be officially recognised.[272]

5.1.2. Domestic Legislation and Indigenous Rights in South Africa

Approximately 1 % of the South African population of 50 million are considered to be indigenous.[273] In 2007 around 27 million South Africans used plants for traditional medical purposes, and more than 133 000 people were employed in a business utilising plants for its medicinal functions, generating over 172 million euros. The traditional medicines market in South Africa is estimated to be 144 million euros a year.[274] South Africa is a party to the

[269] Kukula Traditional Health Practitioners Association (n 263) 11.
[270] Cocchiaro and others (n 265) 154.
[271] Kukula Traditional Health Practitioners Association (n 263) 5, 10.
[272] Sibuye and others (n 263) 107.
[273] Lesle Jansen, 'South Africa' in Dwayne Mamo (ed), *The Indigenous World 2020* (IWGIA 2020) 161.
[274] Myles Mander and others, 'Economics of the Traditional Medicine Trade in South Africa Care Delivery' (2007) 2007 South African Health Review 189, 190, 194; Department of Environment, Forestry and Fisheries Republic of South Africa, 'Bioprospecting Economy' (*Department of*

Convention on Biological Diversity,[275] the Nagoya Protocol,[276] and has adopted the UN Declaration on the Rights of Indigenous Peoples.[277] South Africa has not ratified ILO Convention No. 169.[278]

The CBD and the Nagoya Protocol are implemented in the National Environmental Management Act 107 of 1998 and the National Environmental Management Act: Biodiversity Act No 10 of 2014.[279] The National Environmental Management Act 107 holds that environmental management decisions must be taken with the participation of the affected parties[280] and that state decisions must recognise all forms of knowledge, including traditional knowledge.[281] Within the framework of the National Environmental Management Act 107, the National Environmental Management Act: Biodiversity Act No 10 regards the use of indigenous biological resources in a sustainable manner and the fair and equitable sharing of benefits arising from utilising indigenous resources.[282] Bioprospecting is defined as any research, development or application of, concerning indigenous biological resources "for commercial or industrial exploitation, and includes the utilisation for purposes of such research or development of any information regarding any traditional uses of indigenous biological resources by indigenous communities".[283] Thus, any commercial use of traditional knowledge is subject to benefit-sharing regulation. A permit to engage in bioprospecting can only be issued if prior consent has been obtained, and a benefit-sharing

Environment, Forestry and Fisheries)
<www.environment.gov.za/projectsprogrammes/bioprospectingeconomy> accessed 30 July 2020.
[275] UNTC (n 68).
[276] UNTC (n 72).
[277] UN Department of Economic and Social Affairs Indigenous Peoples, 'United Nations Declaration on the Rights of Indigenous Peoples' <www.un.org/development/desa/Indigenouspeoples/declaration-on-the-rights-of-Indigenous-peoples.html> accessed 29 April 2020.
[278] ILO, Ratifications of Convention No 169 (n 18).
[279] South Africa, '6th National Report on the Convention on Biological Diversity' (2018) The Clearing-House Mechanism of the Convention on Biological Diversity 211
<https://chm.cbd.int/pdf/documents/nationalReport6/241240/2> accessed 20 July 2020.
[280] Republic of South Africa, National Environmental Management Act 107 of 1998 section 2(4)(f).
[281] Republic of South Africa, National Environmental Management Act 107 of 1998 (n 280) section 2(4)(g).
[282] Republic of South Africa, National Environmental Management Act: Biodiversity Act No 10 of 2004 [No. 26436] art 2.
[283] Republic of South Africa, National Environmental Management Act: Biodiversity Act No 10 of 2004 (n 282) section 2.

agreement regarding the sharing of all future benefits, as well as all other benefits the knowledge might provide, have been entered into.[284]

The Department of Environmental Affairs issue permits for both the discovery and the commercial phase of bioprospecting. The discovery phase includes any research on genetic material where the prospect of continuing to the commercial phase is unclear. At the commercial phase, it is sufficiently clear that a commercial product is being developed. As of 2018, the Department of Environmental Affairs had issued 89 permits for research at the commercial phase, six permits for the discovery phase outside South Africa and 117 permits for discovery research within South Africa.[285] The Department of Environmental Affairs also supports the development of community protocols by holding awareness-raising workshops and engages with individual communities when so required.[286]

Indigenous traditional knowledge has been acknowledged as important for the protection of biodiversity, and there has been an increase in indigenous communities participating in decision-making processes relating to environmental protection. Within certain areas, indigenous peoples and parks have entered into benefit-sharing agreements to grant indigenous peoples' access to the natural resources of the park.[287] *Sue generis* legislation on the protection and management of indigenous knowledge system is being developed and there is an initiative on documenting indigenous knowledge through a national system.[288]

Community protocols are defined in the Intellectual Property Laws Amendment Act No. 28 of 2013 as "a protocol developed by an indigenous community that describes the structure of the indigenous community and its claims to indigenous cultural expressions or knowledge and indigenous works, and provides procedures for prospective users of such indigenous cultural expressions or knowledge or indigenous works, to seek the community's prior informed consent, negotiate mutually agreed terms and benefit-sharing agreements".[289] The act does not make a difference between traditional knowledge associated with genetic

[284] Republic of South Africa, National Environmental Management Act: Biodiversity Act No 10 of 2004 (n 282) art 82.
[285] South Africa, '6th National Report on the Convention on Biological Diversity' (n 279) 212–213.
[286] Interim National Report by South Africa (n 246) question 40 and 42.04/08/2020 20:05:00
[287] South Africa, '6th National Report on the Convention on Biological Diversity' (n 279) 215.
[288] Interim National Report by South Africa (n 246) question 44.
[289] Republic of South Africa, Intellectual Property Laws Amendment Act No. 28 of 2013 [No. 37148] section 3(c), 8(b).

resources and traditional cultural expressions. Hence, it has been argued that the act only protects traditional expressions and not traditional knowledge associated with genetic resources.[290]

In November 2019 the South African President signed the Traditional Leadership and Khoisan Act.[291] The act recognises the Khoi and San communities, grant access to justice, allow these communities to be part of administrative processes, and make special provisions concerning culture and religion.[292] The act holds that traditional leaders of the Khoi-San are to participate in municipal councils, where one of their tasks is to promote the indigenous knowledge systems[293] and the Khoi-San is to set up their own council to promote indigenous knowledge systems for sustainable development.[294]

Indigenous peoples in South Africa face challenges regarding the right to land and human rights. The right to land is a highly controversial question as during apartheid, millions of black people lost their lands to the white minority.[295] The UN Special Rapporteur on Indigenous Issues, Rodolfo Stavenhagen, reported in 2005 that indigenous peoples in South Africa were removed from their traditional lands, deprived of their natural resources, and not able to use traditional nor Western medicines. Stavenhagen recommended that the indigenous peoples who had lost their land due to colonial and discriminatory legislation should have the legal and judicial opportunity to file claims for restitution with the help of the government. He also recommended a collective land right for indigenous communities.[296] These recommendations have still not been fulfilled. Amendments are being made to the constitution concerning the right to land, but indigenous peoples have not

[290] André van der Merwe, 'The Old and the New: A Concise Overview of the Intellectual Property Laws Amendment Act' (2014) 2014 De Rebus, Law Society of South Africa 28, 32.
[291] Republic of South Africa, Parliamentary Monitoring Group, 'Traditional and Khoi-San Leadership Bill (B23-2015) Section 76: Ordinary Bills Affecting the Provinces' <https://pmg.org.za/bill/593/> accessed 5 May 2020.
[292] IWGIA, 'Indigenous Peoples in South Africa' (*IWGIA*) <www.iwgia.org/en/south-africa> accessed 5 May 2020.
[293] Republic of South Africa, Parliamentary Monitoring Group (n 291) section 81(8)(1).
[294] Republic of South Africa, Parliamentary Monitoring Group (n 291) section 17(1)(a), 20(1)(i).
[295] Wendell Roelf, 'South African Parliament Endorses Report on Disputed Land Reform' (*Reuters*, 4 December 2018) <www.reuters.com/article/us-safrica-land/south-african-parliament-endorses-report-on-disputed-land-reform-idUSKBN1O31WL> accessed 5 May 2020.
[296] Commission on Human Rights, 'Human Rights and Indigenous Issues Report of the Special Rapporteur on the Situation of Human Rights and Fundamental Freedoms of Indigenous People, Rodolfo Stavenhagen' Addendum, Mission to South Africa (15 December 2005) E/CN.4/2006/78/Add.2 [33], [86]-[88].

been part of the discussions. Some communities have also struggled with continuing their cultural practices of gathering conventional foods and fishing due to private commercial farms on ancestral land and corporations using their marine resources. Furthermore, when indigenous peoples have tried to access their ancestral lands, criminal charges have been filed.[297]

In 2018 the North Gauteng High Court decided that the Ministry of Mineral Resources have to seek consent from the relevant indigenous communities before it can approve corporations to mine on ancestral land. The court stressed that "no decisions may be made about people's land without their free, prior and informed consent." The court further concluded that customary laws on the right to land have to be protected.[298]

5.2. The Use of Community Protocols in India

5.2.1. Raika Livestock Keepers

The Raika is an indigenous pastoral community in the Rajasthan region in northwest India, where they have lived for 700 years. They consist of different communities and are in total approximately one million people.[299] The Raika community protocol was developed in 2009 together with the NGO Natural Justice and the local NGO Lokhit Pashu-Palak Sansthan. Lokhit Pashu-Palak Sansthan had been working with the Raika for 15 years when Natural Justice got involved and suggested that they establish a community protocol. The Raika community protocol is believed to be the first protocol for livestock keepers.[300]

The Raika has knowledge regarding the development of a wide variety of livestock that can survive in the dry and harsh conditions of the Rajasthan region. They breed cattle, sheep,

[297] Lesle Jansen, 'South Africa' in David Berger (ed), *The Indigenous World 2019* (IWGIA 2019) 546-547.
[298] *Baleni and Others v Minister of Mineral Resources and Others* [2018] High Court of the Republic of South Africa, Gauteng Division, Pretoria 73768/2016 [79], [84].
[299] Raika Community Protocol 'Raika Bio-Cultural Protocol' (2009) <www.bfn.de/fileadmin/ABS/documents/2009-Raika Community Protocol final.pdf> accessed 20 July 2020 3.
[300] Ilse Köhler-Rollefson and others, 'Biocultural Community Protocols: Tools for Securing the Assets of Livestock Keepers' in Krystyna Swiderska (ed), *Biodiversity and culture: exploring community protocols, rights and consent* (IIED 2012) 113.

goats and camels that can walk long distances and are less vulnerable to disease, compared to other similar breeds. The community protocol contains a list of the different breeds of livestock they have developed and how they differ to other similar breeds and what their specific properties are. The Raika traditional knowledge ensures genetic diversity by rotating bulls between villages, by rotating grazing, and they have their own veterinary knowledge. They have ecological knowledge about tree growth, the use of medical plants, and they provide health assistance within and outside their community. Due to their breeding techniques and understanding of the environment, the Raika have contributed to the ecology and biodiversity of the region. When their animals graze, they consume the foliage on the ground, decreasing the risk of forest fires and reducing the number of termites. The Raika have been the guardians of the forest, by fighting forest fires, dealing with plants that are poisonous for their livestock and other animals in the area and by reporting illegal logging. The number of leopards in the area has been sustained as the Raika let leopards' prey on the Raika livestock.[301]

The Raika do not own their land and are dependent on the forest and their traditional right to graze their land. During the past 60 years, access to their land has been restricted because of wildlife sanctuaries, roads, and intensified crop cultivation.[302] In 2004 the Indian Central Empowered Committee prohibited the Raika from grazing in the forests as they believed it would harm the biodiversity.[303] Because of this, they have had to sell their livestock, leading to loss of knowledge. This has also changed the ecosystem, as less livestock means less grazing, leading to more grass and foliage on the ground, which increases the number of forest fires. There have also been disagreements between older and younger generations who are less interested in their traditional knowledge and traditional way of life. The Raika believe that their children decide to discontinue the indigenous lifestyle, because of the hardships of continuing their traditional way of life.[304] The community's customary laws have changed due to land restrictions. Before, when the Raika were custodians over the forest, they ensured that illegal logging, pouching and practices that degraded the

[301] Raika Community (n 299) 4-7, 15-17.
[302] Köhler-Rollefson and others (n 300) 112; Raika Community Protocol (n 299) 8-10.
[303] Bavikatte and Bennett (n 79) 11; Arnab Pratim Dutta, 'Ban on Grazing Hits Raikas Community Hard' (*Down To Earth*, 7 June 2015) <www.downtoearth.org.in/coverage/ban-on-grazing-hits-raikas-community-hard-5748> accessed 3 May 2020.
[304] Köhler-Rollefson and others (n 300) 112; Raika Community Protocol (n 299) 9-10.

environment were punished. Today they are no longer able to hinder crimes from being committed in the area.[305]

The Raika community protocol states that their customary laws have to be followed when researchers or outside parties are interested in their traditional knowledge associated with genetic resources or when it would affect the Raika livelihood. The community panchayat, which consists of community elders, must be consulted and given all relevant information regarding why someone is interested in their knowledge. The community panchayat must also be given enough time to discuss the issue within the community in accordance with their laws and traditions. If they were to give access to their knowledge, they would hold the right to enter into a benefit-sharing agreement.[306]

The community protocol calls on national authorities to recognise local Raika breeds and the associated traditional knowledge and to include it in the Peoples Biodiversity register.[307] Knowledge from the Rajasthan area, including the Raika knowledge has, as of May 2020, not been included in the Register.[308] Moreover, the community protocol calls for Management Committees to ensure sustainable use of their breeds and their traditional knowledge, as this would strengthen the *in situ* conservation, and to ensure that prior informed consent by the Raika before approving access to researchers or corporations. It also includes a list of how the Raika will commit to protecting the regional biodiversity and associated traditional knowledge. They commit to continuing as custodians of the forest, protecting the forest from fires, sustaining the predator population by offering their livestock, ensuring strong tree growth, combating illegal logging and poaching, practising traditional breeding and veterinary practices, as well as traditional sustainable forest management.[309]

The protocol holds that as the Raika livestock breeds are the result of their traditional knowledge and cultural expressions and are seen as collective property, the government must respect, preserve and maintain their knowledge and traditions, as stated in Article 8(j) and

[305] Raika Community Protocol (n 299) 6, 10.
[306] Raika Community Protocol (n 299) 7–8.
[307] Republic of India, Biological Diversity Rules 2004 [GSR 261 E, published 15 April 2004, India Gazette, Extraordinary Part II – Section 3-Sub-section (i)] rule 22(6).
[308] Indian National Biodiversity Authority, 'People's Biodiversity Register' (5 May 2020) <http://nbaindia.org/content/105/30/1/pbr.html> accessed 14 July 2020.
[309] Raika Community Protocol Raika Community (n 299) 12–13.

10(c) of the CBD. Furthermore, it holds that "the Raika shall have the right to participate in policy formulation and implementation processes on animal genetic resources for food and agriculture, also supported by Article 8(j) of CBD".[310]

The Raika have been able to use their community protocol when interacting with the Government, and Raika representatives have participated in meetings on issues such as access and benefit-sharing in Montreal and Nairobi. However, it has also proven that binding agreements such as the CBD lacks awareness in India, as the community struggles to protect their rights under the CBD and the Nagoya Protocol. Furthermore, while the legal content of the protocol is valuable, it requires legal knowledge, which the community lacks, making it less beneficial for the community.[311]

5.2.2. Domestic Legislation and Indigenous Rights in India

There are 705 officially recognised indigenous tribes in India, comprising 8.6 % of the total population. The actual number of indigenous peoples is higher, but they are not officially recognised.[312] India is a party to the CBD,[313] the Nagoya Protocol,[314] and the UN Declaration on the Rights of Indigenous Peoples,[315] but is not a party to the ILO Convention No. 169.[316] Nonetheless, India considers all Indian people to be indigenous, and the Declaration on the Rights of Indigenous Peoples is therefore not applicable.[317] However, the Indian government has started to use the term 'indigenous peoples' which is a significant development for the recognition of indigenous peoples in India.[318] India was one of the leading parties to lobby for the implementation of the Nagoya Protocol, as users of natural resources have not respected Indian legislation on biodiversity and bioprospecting.[319]

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[310] Raika Community Protocol Raika Community (n 299) 18-22.
[311] Köhler-Rollefson and others (n 300) 114.
[312] Tejang Chakma and Martemjen, 'India' in Dwayne Mamo (ed), *The Indigenous World 2020* (IWGIA 2020) 234.
[313] UNTC (n 68).
[314] UNTC (n 72).
[315] UN Department of Economic and Social Affairs Indigenous Peoples (n 277).
[316] ILO, 'Ratifications of Convention No 169' (n 18).
[317] Sapriina and Chakma (n 19) 347.
[318] Chakma and Martemjen (n 312) 234.
[319] Kabir Sanjay Bavikatte and Morten Walløe Tvedt, 'Beyond the Thumbrule Approach: Regulatory Innovations for Bioprospecting in India' (2015) 11 Law, Environment and Development Journal 1, 8.

The Biological Diversity Act of 2002 established a National Biodiversity Authority to recommend to the Central Government measures that protect traditional knowledge.[320] The National Biodiversity Authority work together with local Biodiversity Management Committees, who consult local communities before deciding on issues concerning the use of biological resources and traditional knowledge.[321] Anyone who intends to obtain traditional knowledge or biological resource for research or commercial use, or intends to apply for an intellectual property right, in or outside India, based on information on a biological resource obtained from India has to make an application to the National Biodiversity Authority. If the National Biodiversity Authority approves the application, there can be no transfer of biological resources or associated knowledge if the same authority has not approved it. Access is given if mutually agreed terms and benefit-sharing has been negotiated with the local community.[322]

Benefit-sharing can include, for example, joint ownership of the intellectual property right to the National Biodiversity Authority, or if the benefit claimers are identified, to the benefit claimers; transfer of technology, locate production, research and development units to areas that will facilitate better living standards to the benefit claimer; or monetary or non-monetary benefits to the benefit claimers at the discretion of the National Biodiversity Authority.[323] In 2012 a Brazilian company was granted access to 4000 cattle embryos from Gir and Kankrei breeds after the company paid 12 million INR (140 000 EUR) to the National Biodiversity Authority. However, the Biodiversity Authority is unsure whom the money should benefit as they do not know who the breed creators are. Dr Ilse Köhler-Rollefson holds that it would be easier to share the money if a community protocol existed.[324]

Biodiversity Management Committees are responsible for establishing local People's Biodiversity Register, containing information on natural resources, their medicinal prosperities or any other traditional knowledge associated with the biological resource.[325]

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[320] Republic of India, Biological Diversity Act 2002 [No. 18 of 2003, published 5 February 2003, India Gazette, Extraordinary Part II-Section 2-Subsection (1)] section 36(5).
[321] Republic of India, Biological Diversity Rules 2004 (n 307) rule 22(6); Republic of India, Biological Diversity Act 2002 (n 320) section 41.
[322] Republic of India, Biological Diversity Act 2002 (n 320) section 19-21.
[323] Republic of India, Biological Diversity Act 2002 (n 320) section 21.
[324] Ilse Köhler-Rollefson, 'Pastoralists and India's Biological Diversity Act' (*Livestock Futures*, 15 April 2018) <www.ilse-koehler-rollefson.com/?p=1091> accessed 29 July 2020.
[325] Republic of India, Biological Diversity Rules 2004 (n 307) rule 22(6).

Only a small number of breeds developed by pastoralist communities have been included, resulting in lesser traditional knowledge protection when it comes to knowledge held by pastoralist communities.[326]

Even though India has legislation regulating the use of biological resources and traditional knowledge, monitoring and compliance of the laws have not been sufficient, and large quantities of plants are exported due to medical discoveries by corporations. This is due to the lack of trained personnel that can observe the trade and the difficulty of identifying dried plants. Traditional knowledge is not only used for medicines and cosmetics, but also in the development of genetically modified products. The National Biodiversity Authority has not received information from these corporations even after several requests, and no benefits have been shared. The reason for this is an unwillingness to share benefits and vague regulations regarding when benefits have to be shared.[327]

India has also constructed a Traditional Knowledge Digital Library, containing information on traditional knowledge to protect it from misappropriation. The Digital Library contains digitalised traditional knowledge that concerns Ayurveda, Unani, Siddha or Yoga. It seeks to prevent patents on products that are based on traditional knowledge and holds none or a minimal amount of inventiveness. It provides information, that would otherwise only exist in local languages in Indian libraries, to international patent examiners. It can be used when there are issues relating to prior art as the library establishes the date and time of publication.[328] Due to references in the Traditional Knowledge Digital Library, 50 patents granted by European patent offices have been withdrawn.[329]

As previously stated, India considers all Indian people to be indigenous; hence there are no indigenous peoples in India.[330] In the Interim National Report in the Access and Benefit Sharing Clearing House India held that they do not have indigenous and local communities and answered 'not applicable' on the questions relating to the consideration and support of

[326] Köhler-Rollefson (n 324).
[327] Bavikatte and Tvedt (n 319) 6-7.
[328] WIPO, 'About the Traditional Knowledge Digital Library' <www.wipo.int/meetings/en/2011/wipo_tkdl_del_11/about_tkdl.html> accessed 29 July 2020.
[329] India, '6th National Report on the Convention on Biological Diversity' (2018) The Clearing-House Mechanism of the Convention on Biological Diversity 181 <https://chm.cbd.int/pdf/documents/nationalReport6/241351/1> accessed 20 July 2020.
[330] Chakma and Martemjen (n 312) 234.

community protocols.[331] However, India also states that they do support the development of community protocols as stated in Article 12(3) of the Nagoya Protocol.[332]

Indian laws that are aimed to protect indigenous peoples have shortcoming and are not always implemented. Numerous laws prohibit the sale of ancestral land to non-tribal peoples, but the laws are not enforced and do not apply retrospectively.[333] In 2019, 666 ongoing land conflicts were affecting more than 7 million people concerning over 2 million hectares of tribal land. In Telangana in the centre-south part of India, ancestral landowners have failed 50,358 cases challenging ancestral land occupied by non-tribal peoples. The court decided in favour of the tribal peoples in 30,004 of the cases. However, the decisions have not been enforced, and non-tribal people still occupy 20,023 acres of ancestral land.[334]

Forest rights of forest-dwelling tribes are being repressed. The Indian Forest Rights Act holds that members of a forest-dwelling tribe cannot be evicted from their ancestral land until a settlement of forest rights have been completed. In 2019, 41 % of the over 4.2 million claims that had been field regarding forest rights were rejected, and there is a risk of being evicted even when forest rights titles have been approved, or a claim is pending.[335] In 2018, 8.54 million tribal peoples were internally displaced in India due to the building of dams, mining, wildlife protection, and other industries, of them, only 2.12 million have been rehabilitated. This has led to the loss of livelihoods, and peoples who depend on forestry have not been able to continue.[336]

[331] Interim Nationl Report by India (n 246) question 37, 40 and 42.
[332] Interim National Report by India (n 246) question 37.
[333] Chakma and Martemjen (n 312) 234, 237-238.
[334] Sapriina and Chakma (n 19) 350-351.
[335] Chakma and Martemjen (n 312) 240.
[336] Sapriina and Chakma (n 19) 351.

6. CONCLUDING REMARKS

The present text aimed to review the use of community protocols to protect traditional knowledge, by analysing how community protocols are regulated and supported at the local, national and international level.

At the international level, the Nagoya Protocol and the Convention on Biological Diversity were reviewed. The Nagoya Protocol directly refer to community protocols and require member states to consider community protocols when implementing the Nagoya Protocol, support the development of community protocols and raise awareness regarding the use of community protocols. The Meeting of the Parties to the Nagoya Protocol has held that community protocols can be beneficial when determining the concept of indigenous peoples, clarifying their rights over traditional knowledge, and linking the knowledge to the correct community. Community protocols have also been understood as a method for indigenous peoples to be able to participate in the access and benefit-sharing process. A limitation of the Nagoya Protocol is the absence of an obligation for user states to ensure that the user of traditional knowledge respected and acted in accordance with the community protocol. The protection of traditional knowledge is dependent on the legislation in the provider state, and the existence of a community protocol does not expand user obligations.

The Conference of the Parties to the Convention on Biological Diversity has endorsed the use of community protocols in the Mo'otz Kuxtal and the Rutzolijirisaxik Voluntary Guidelines. Under the Mo'otz Kuxtal Guidelines, community protocols are seen as instruments that can play a role when clarifying the consent process for accessing traditional knowledge and can explain the community perspective. Under the Rutzolijirisaxik Guidelines, community protocols can clarify the process of repatriating traditional knowledge. However, community protocols are not seen as a primary instrument to ensure compliance with neither guideline. The Conference of the Parties has also supported the use of community protocols to achieve the Aichi Biodiversity Targets relating to the protection of traditional knowledge. The review of the use of community protocols at the international level demonstrated that community protocols are held to be instruments that primarily should be regarded when accessing traditional knowledge and deciding on the sharing of benefits. This is, of course, not unanticipated since the focus of the Nagoya Protocol is on access and benefit-sharing. However, also under the CBD has the focus of community protocols for the

protection of traditional knowledge been on access and benefit-sharing, compared to being seen as an instrument that protects environmental sustainability, and therefore indirectly protect traditional knowledge. A limitation of both the CBD and the Nagoya Protocol is that the success of a community protocol is dependent on the states willingness to support them.

The analysis of national legal frameworks was reviewed from the perspective of the Nagoya Protocol, as the analysis was conducted based on interim national reports submitted by each member state to the Access and Benefit-sharing Clearing-House. The analysis concluded that of the 65 states that are Nagoya Protocol member states, have indigenous peoples and have submitted an interim national report, 60 % consider indigenous communities' customary laws, community protocols and procedures when implementing the Nagoya Protocol and 63 % support the development of community protocols. However, several states that answered negatively held that they do support the use of community protocols but do not have legislation or administrative measures relating to it. Some of the states held that they respect community protocols but did not clarify if they also utilise community protocols outside the access and benefit-sharing procedure. The analysis demonstrated that community protocols are primarily supported as an instrument that clarifies the access and benefit-sharing procedure. Likewise, in South Africa and India, the protection of traditional knowledge is focussed on access and benefit-sharing.

The review of the community protocols established by the Raika and the Kukula Traditional Health Practitioners Association revealed that at the local level, communities are concerned by misappropriation of traditional knowledge and being restricted from accessing their land and natural resources. The communities have lost traditional knowledge by not being able to harvest medical plants or graze their lands as they used to. Both communities consider their community protocol as a tool to be utilised when negotiating with third parties accessing their knowledge and when negotiating with the state regarding their right to, for example, access ancestral land. Some of the central issues for indigenous peoples in India and South Africa concern the loss and restricted use of land.

Consequently, this thesis finds that at the international and national level, the use of community protocols is encouraged and used as an instrument to assist in the access and benefit-sharing process. Hence, indigenous peoples holding traditional knowledge that are not of commercial value does not necessarily benefit from access and benefit-sharing

regulation as the access and benefit-sharing process does not benefit them. However, at the local level community protocols are seen as a more versatile tool that can be used to protect the environment, provide access to restricted land as well as clarify the access and benefit-sharing procedure. Community protocols are by no means supported as a cure-all for the protection of traditional knowledge and the regulation and support for them at the local, national and international level differ. Nevertheless, community protocols are considered to be a versatile tool that can be adapted to suit the indigenous communities need at the local, national and international level depending on the states willingness and the communities understanding of their rights both nationally and internationally.