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DEVELOPING GUIDELINES FOR THE PROTECTION OF INDIGENOUS KNOWLEDGE UNDER THE AGREEMENT ESTABLISHING THE AFRICAN CONTINENTAL FREE TRADE AREA

A thesis submitted in fulfilment of the requirements for the degree of Doctor of Philosophy in Law at the School of Law, Faculty of Management, Commerce and Law, University of Venda

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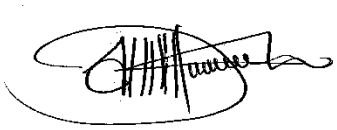
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DECLARATION

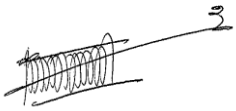
I, the undersigned, **Tshimangadzo Donald Mukwevho**, hereby declare that this thesis for the degree of Doctor of Philosophy in Law titled: "**Developing guidelines for the Protection of Indigenous Knowledge under the Agreement Establishing the African Continental Free Trade Area**" hereby submitted by me at the University of Venda, has not been previously submitted for a degree at this or any other institution for examination, and that it is my work in design and execution, and that all reference material contained therein has been duly acknowledged.



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DEDICATION

To all the indigenous people around the world, especially those in developing and least developed countries and in particular in Africa, who have suffered the effects of biopiracy because of an inadequate legal framework for safeguarding their respective cultural property and identities.

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ACKNOWLEDGEMENTS

This thesis was possible only with many individuals' support, guidance, and encouragement.

First and foremost, I am deeply grateful to Prof. DO Oriakhogba, whose invaluable assistance laid the foundation for this research during the proposal development phase. Your insights and expertise were instrumental in shaping the direction of this study.

I am also profoundly thankful to Prof. T van der Walt, and Prof. L Ndlovu, for their generous financial assistance. Their support was crucial in allowing me to pursue this academic journey.

Again, my heartfelt gratitude goes to Prof. L Ndlovu and Prof. DO Oriakhogba for their unwavering supervision and mentorship throughout this project. Your commitment, patience and wisdom guided me through the complexities of this research, and I am forever indebted to you for your dedication to my academic growth.

To my friends, family, and colleagues, your unwavering support, encouragement, and understanding have been my anchor throughout this journey. Your belief in me motivated me during the most challenging times, and your constant presence provided the strength I needed to complete this work.

Thank you all for being part of this journey and for your immeasurable contributions to this achievement.

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SUMMARY

This study examines the efficacy of protecting indigenous knowledge within the context of the African Continental Free Trade Area (AfCFTA) Agreement. It examines the efforts aimed at establishing a robust legal and policy framework within the AfCFTA to foster African economic development. Although the Protocol to the Agreement Establishing the African Continental Free Trade Area on Intellectual Property Rights (IP Protocol) has been adopted, there is yet to be an annex on indigenous knowledge, traditional cultural expressions, and genetic resources. Therefore, this study proposes guidelines and a structured framework to guide the development of this annex.

As a desktop (doctrinal) research, this study examines international, regional, and national legal frameworks, best practices, case law, and academic literature on the protection of indigenous knowledge. Grounded in a combined biopiracy, IP, and, free, prior, and informed consent (FPIC) conceptual framework, this study develops an "Integrated Indigenous Knowledge Protection Theory," which justifies the adaptation of the conventional IP regimes and developing a *sui generis* regime for indigenous knowledge protection. This approach encapsulates the incorporation of the IP regime, indigenous peoples' rights, customary rules, and administrative and institutional framework for protecting indigenous knowledge.

To achieve the study objectives, the thesis explores the propriety of using trade agreements, particularly the AfCFTA Agreement, to protect indigenous knowledge. It then examines the approaches adopted in existing international and national legal, policy and practices on the protection of indigenous knowledge. From this, the study proposes useful guidelines and effective structure for the Annex to the IP Protocol. Ultimately, this study advances the argument that a comprehensive framework that balances the economic exploitation of indigenous knowledge and the associated resources, with the rights indigenous people/communities have over these resources will effectively guide policy and lawmakers towards developing a framework that will ensure the protection of indigenous knowledge for the actualisation of the objectives of the AfCFTA Agreement.

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KEYWORDS

Indigenous/traditional knowledge; Agreement Establishing the African Continental Free Trade Area (AfCFTA Agreement); Protocol to the Agreement Establishing the African Continental Free Trade Area on Intellectual Property Rights (IP Protocol); Integrated Indigenous Knowledge Protection Theory; Intellectual property rights (IPR).

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TABLE OF ABBREVIATIONS

ABS	Access and benefit sharing
AEC	African Economic Community
AfCFTA	African Continental Free Trade Area
AMU	Arab Maghreb Union
ARIPO	Africa Regional Intellectual Property Organisation
AU	African Union
BCP	Bushbuckridge Community Protocol
CBD	Convention on Biological Diversity
CEMIRIDE	Centre for Minority Rights Development
CIPC	Companies and Intellectual Property Commission
COMESA	Common Market for Eastern and Southern Africa
CSIR	Council for Scientific and Industrial Research
DRC	Dispute Resolution Committee
DSI	Department of Science and Innovation
DTI	Department of Trade and Industry
EAC	East African Community
ECCAS	Economic Community of Central African States
ECOWAS	Economic Community of West African States
ETC	Erosion, Technology, and Concentration
FPIC	Free, Prior and Informed Consent
FTA	Free trade agreements
GI	Geographical indications
ICCPR	International Covenant on Civil and Political Rights

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ICESCR	International Covenant on Economic, Social and Cultural Rights
ICH	Intangible cultural heritage
ICTSD	International Centre for Trade and Sustainable Development
IDDRSI	IGAD Drought Disaster Resilience and Sustainability Initiative
IGAD	Inter-Governmental Authority on Development
IKS	Indigenous Knowledge Systems
IP	Intellectual Property
IPLAA	Intellectual Property Laws Amendment Act
IPR	Intellectual property right
MFN	Most favoured nation
MOU	Memorandum of understanding
MTA	Material transfer agreements
NAFTA	North American Free Trade Agreement
NIKMAS	National Indigenous Knowledge Management System
NIKSO	National Indigenous Knowledge Systems Office
NRS	National Recordal System
OAU	Organisation of African Unity
OECD	Organisation for Economic Co-operation and Development
PTA	Preferential trade agreements
REC	Regional economic community
RTA	Regional trade agreements
RTD	Right to development
SADC	Southern African Development Community
SAHGA	Southern African Hoodia Growers Association

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SASC	South African San Council
SDG	Sustainable development goals
TCE	Traditional cultural expressions
TK	Traditional knowledge
TRIPS	Trade-Related Aspects of Intellectual Property
UNDRIP	United Nations Declaration on the Rights of Indigenous Peoples
UNECA	United Nations Economic Commission for Africa
USPTO	United States Patent and Trademark Office
WAAC	West African Airways Corporation
WACB	West African Currency Board
WCED	World Commission on Environment and Development
WIPO	World Intellectual Property Organization
WTO	World Trade Organization

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CHAPTER ONE

INTRODUCTION

1.1. Background to the study

For many years, indigenous people have created ways of preserving their culture through environmental management and biodiversity conservation.[1] There is no universal meaning for the concept of "indigenous/traditional knowledge", but there is some consensus that it refers to the diverse tangible and intangible cultural creativity and innovation practiced by indigenous communities, which are then transmitted from generation to generation.[2] The challenge of developing a universal meaning is an ongoing mission of the World Intellectual Property Organization (WIPO) as it attempts to create a single and detailed framework for safeguarding indigenous knowledge.[3]

However, in the interim, WIPO has a working concept definition. Traditional knowledge is defined as the knowledge, skills and practices that are developed, sustained and passed from one generation to another in that specific community, which knowledge forms part of the cultural and spiritual identity of the people in a specific community.[4] Inferences will be drawn from this definition in the literature review and throughout the study, together with those provided for in different international[5] and regional treaties,[6] National legislation and the opinions of various legal scholars.

[1] Lesley le Grange, 'Western Science and Indigenous Knowledge: Competing Perspectives or Complementary Frameworks?' (2004) 18(3) South African Journal of Higher Education 82.
[2] Stanislav Ksenofontov *et al*, 'There are New Species: Indigenous Knowledge of Biodiversity Change in Arctic Yakutia' (2019) 42(1) Polar Geography 34.
[3] Ouma Marisella, 'Traditional knowledge: The challenges facing international lawmakers' (WIPO Magazine, February 2017) <https://www.wipo.int/wipo_magizine/en/2017/article_0003> accessed 23 April 2023.
[4] See WIPO, 'Traditional knowledge' <https://www.wipo.int/tk/en/tk/#:~:text=Traditional%20knowledge%20(TK)%20is%20knowledge,its%20cultural%20or%20spiritual%20identity> accessed 23 April 2023.
[5] See the Convention on Biological Diversity, 1992 (CBD); Convention on the Protection and Promotion of the Diversity of Cultural Expressions (2005); United Declaration on the Rights of Indigenous Peoples (2017); and the Convention Concerning the Protection of the World Cultural and Natural Heritage (1972).
[6] See Swakopmund Protocol, 2019, and the Arusha Protocol for the Protection of New Varieties of Plants, 2015.

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Contrary to the popular view that indigenous knowledge concerns the ancient age, it is a dynamic component of a traditional community.[7] All the community does about the knowledge is to develop it to meet the standards at a particular time and then sustain and pass it on from one generation to another in that community.[8] This knowledge has various benefits, such as economic benefits. Indigenous knowledge may be the subject of regional and international trade.[9]

This study shows that indigenous knowledge is evident in various industries, such as agriculture, medicine, manufacturing and trade. It approaches this conceptualisation from a general perspective, where this knowledge belongs to African indigenous communities, forming the basis of many industries' functionality as aforementioned. There is a widespread view that indigenous knowledge is locally based, but it is primarily a situated system where the knowledge is obtained from heterogeneous aspects of living. Indigenous knowledge ensures coherence and incorporation of modern developing knowledge systems through social strategies and other technical devices applicable to each circumstance.[10]

The evolution of cultures, human development, and the formation of new customary norms determine the nature of the whole system of indigenous culturalism.[11] Of note is that indigenous knowledge did not receive legal protection for a long time, especially within the context of international trade. This can be seen from the non-recognition of a prominent trade instrument, such as the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS).[12] The way it was negotiated, the contents of the

[7] Ladislaus Semali and Joel Kincheloe, 'Introduction: What is indigenous knowledge and why should we study it?' In Ladislaus Semali and Joel Kincheloe (eds), *What is indigenous knowledge? Voices from academy* (Falmer Press 1999).
[8] John Mugabe 'Intellectual property protection and traditional knowledge: An exploration in international policy discourse' World Intellectual Property Organization (1998), <www.wipo.int/docs/mdocs/tk/en/wipo_unhchr_ip_pnl_98/wipo_unhchr_ip_pnl_98_4.pdf> accessed 09 December 2022.
[9] William Agan, 'Commercialisation of traditional knowledge in South Africa: Whether the existing intellectual property framework encourages commercialisation' (LLM dissertation, University of Cape Town 2013) <William Agan, 'Commercialisation of traditional knowledge in South Africa: Whether the existing intellectual property framework encourages commercialisation' (LLM dissertation, University of Cape Town, 2013) 1-77 - Search (bing.com)> accessed 20 June 2023.
[10] For example, the digitisation of some indigenous knowledge components such as pictures of certain medicinal plants and recording of specific sounds with cultural significance.
[11] Rauna Kuokkanen, 'The Responsibility of the Academy: A Call for Doing Homework' (2010) 26(3) Journal of Curriculum Theorizing 61.
[12] Gerard Bodeker, 'Traditional medical knowledge, intellectual property rights and benefit sharing' (2003) 11 Cardozo International & Comparative Law Review 785.

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agreement, and the way it was implemented reflect the influence of those who stood to benefit from more complex productive processes that the developing states could not afford.[13]

The commercial interests of Western and European countries affected how the agreement was drafted. Therefore, it enabled them to exploit the indigenous communities of their indigenous knowledge.[14] The non-protection of this knowledge meant that those states with financial strengths could manipulate and assert ownership over a particular article and then protect it under the intellectual property (IP) regime.[15] Many states in the South did not do this and still need to transform this knowledge to the world's IP standards.[16] This would be achieved through active participation in drafting instruments to safeguard indigenous knowledge.[17]

From the above discussion, the influence of the North and the West contributed to the non-recognition of indigenous knowledge as a right worthy of protection. This study adopts the view that the non-recognition resulted from an ulterior motive. This was to exploit the Global South, which could not develop the knowledge to the extent that the IP regime could recognise it. However, this has changed because of the rising advocacy of indigenous people, human rights activists, expert advocates, and indigenous knowledge practitioners that indigenous people's right to culture and practice deserves quality protection – especially when it must be used for economic reasons.[18]

[13] Andrew Guzman, 'International antitrust and the WTO: The lesson from Intellectual Property' (2003) 43 Virginia Journal of International Law 933.
[14] Including African indigenous communities. See Susan Sell, 'Post-TRIPS developments' (2002) 14 Florida Journal of International Law 193. The literature review extends the discussion on non-recognition of indigenous knowledge, to include the difficulty of defining indigenous knowledge to the extent that it meets the requirements of intellectual property rights.
[15] Arewa Olufunmilayo, 'Piracy, Biopiracy and Borrowing: Culture, cultural heritage and the globalisation of intellectual property' (unpublished manuscript) 32.
[16] Such as that knowledge being known and local; the generic nature of knowledge; invention and non-piracy.
[17] Naomi Roht-Arriaza, 'Of seeds and Shamans: The appropriation of the scientific and technical knowledge of indigenous and local communities' (1996) 17 Michigan Journal of International Law 919.
[18] Indigenous knowledge is starting to receive recognition in the international, regional treaties, and national legal instruments. See international, regional treaties and national legislation that recognised indigenous knowledge mentioned in note 5 and 6, which are discussed in detail in the literature review.

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Given the economic importance[19] of indigenous knowledge to Africa and its trade value, it is now incorporated into the Protocol to the Agreement Establishing the African Continental Free Trade Area on Intellectual Property Rights (IP Protocol).[20] This is discussed further below in the literature review. Nonetheless, it should be noted that the IP Protocol was considered and adopted in the AU 36th Ordinary Session in February 2023.[21] This Protocol is examined in this study.

The IP Protocol was negotiated based on article 4(c) of the AfCFTA Agreement, which stipulates the cooperation of member states on IP rights as one of its specific objectives.[22] Official reports have consistently indicated that the provisions of the IP Protocol should be broadly framed.[23] This is indeed the case, as seen from a reading of the Protocol.[24] Thus, this study determined and developed specific legal guidelines to safeguard indigenous knowledge in the AfCFTA Agreement. In the form of guidelines, these guidelines may l guide member states in framing the principles of protecting indigenous knowledge within the context of the AfCFTA Agreement.

It is, therefore, imperative to interrogate the existing framework on safeguarding indigenous knowledge to distil and develop guidelines for shielding indigenous knowledge under the AfCFTA Agreement. This includes an analysis of the recent

[19] See also Pascalia Jelagat Sergon *et al*, 'The role of indigenous knowledge: Practices and values in promoting socio-economic well-being and equity among community of Kenya' (2022) 18(1) An International Journal of Indigenous Peoples 35; see also Daniel Robinson and Margaret Raven, 'Ethical trade in natural products based on traditional knowledge' 24 October 2019, <https://trade4devnews.enhancedif.org/en/news/ethical-trade-natural-products-based-traditional-knowledge> accessed 24 April 2023. Since the enactment of the Nagoya Protocol on Access and Benefit-sharing, State parties have been applying the principles of the Protocol in so far as the use of biodiversity knowledge for self-development through trade is concerned. Jussi Jauhiainen and Lauri Hooli in Jussi Jauhiainen and Lauri Hooli, 'Indigenous knowledge and the developing countries' innovation systems: The case of Namibia' (2017) 1(1) International Journal of Innovative Science 89-106, argues that the use of a knowledge economy based on the knowledge of a specific nature is a critical push factor for developing countries to succeed in terms of the economy.

[20] Hereinafter referred to as the IP Protocol. See article 18–20 of the Intellectual Protocol to the AfCFTA Agreement.

[21] African Union, 'African Union 36th Summit' (2023) <https://click.au.int/summit36media> accessed 24 April 2023. The full text of the IP Protocol is available at https://www.bilaterals.org/IMG/pdf/en_-_draft_protocol_of_the_afcfta_on_intellectual_property_rights.pdf accessed 11 November 2024.

[22] Article 4(c) of the AfCFTA Agreement.

[23] United Nations Economic Commission for Africa, African Union, Asian Development Bank, and United Nations Conference on Trade Development 'Assessing Regional Integration in Africa – ARIA IX: Next Steps for the African Continental Free Trade Area Report' (2019), <https://www.uneca.org/archive/sites/default/files/PublicationFiles/aria9_report_en_4sept_fin.pdf> accessed 24 April 23 (ARIA IX Report); see also Adebambo Adewopo *et al*, 'Negotiating the Intellectual Property Protocol under the Agreement establishing the African Continental Free Trade Area: Priorities and opportunities for Nigeria' (2021) 15(1) Law and Development Review 33-62 at 36.

[24] See footnote 42 below.

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adopted WIPO Treaty on Intellectual Property, Genetic Resources and Associated Traditional Knowledge,[25] which is the first-ever international instrument focused on indigenous knowledge and indigenous knowledge. This study considers the propriety of preserving indigenous knowledge through trade agreements. Its introductory chapters first determine the appropriateness of commercial principles embedded in trade agreements for ensuring the protection of indigenous knowledge.[26]

Three theoretical perspectives are used in this study to illuminate it. Using theoretical perspectives in a study of this kind is justified since it helps to contextualise the study problem, aims and objectives, and essential concepts pertinent to the study.[27] The theories used are the Biopiracy theory, free, prior and informed consent (FPIC) concept, and intellectual property rights protection theory. Big corporations usually locate indigenous materials with the assistance of indigenous people, manipulate these materials, and then patent them as their invention(s).[28] This method of appropriation is called biopiracy.[29] The biopiracy theory is used to contextualise indigenous people's problems.

Along with the biopiracy theory, the concept of Free, Prior and Informed Consent (FPIC) is used, which is concerned with obtaining consent before using indigenous knowledge-based articles for reasons including, but not limited to, commercialisation.[30] In addition, this study adopts the theories of IPR protection. IPR theories justify IPRs by providing that they must be protected based on a goal to

[25] WIPO Treaty on Intellectual Property, Genetic Resources and Associated Traditional Knowledge 2024 (2024) <WIPO Member States Adopt Historic New Treaty on Intellectual Property, Genetic Resources and Associated Traditional Knowledge> accessed 24 May 2024.
[26] Therefore, channeling the discussion of the appropriateness of the AfCFTA Agreement in protecting indigenous knowledge. Exploring the general provisions of the Protocol on Intellectual Property Rights to the AfCFTA Agreement will be beneficial as they lay a foundation for the form to be taken by the guidelines.
[27] Lonias Ndlovu, 'Access to medicines under the World Trade Organisation TRIPS Agreement: A comparative study of selected SADC countries' (LLD Thesis, University of South Africa 2014) <thesis_ndlovu_l.pdf (unisa.ac.za)> accessed 20 June 2023. This includes the contextualisation of the study problem, hypothesis, and the shape which the recommendations of the study take.
[28] Marcia Ellen DeGeer, 'Biopiracy: The appropriation of indigenous peoples' cultural knowledge' (2003) New England Journal of International and Comparative Law 179.
[29] Marcia Ellen DeGeer, 'Biopiracy: The appropriation of indigenous peoples' cultural knowledge' 179.
[30] See Belen Olmos Giupponi, 'Free, Prior Informed Consent (FPIC) of indigenous people before the human rights courts and international investment tribunals: Two sides of the same coin?' (2018) 5 International Journal on Minority Group Rights 485.

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maximise social welfare, own goods that belong to the public domain, satisfy the needs of people, and achieve a fair and attractive culture.[31]

1.2. The problem statement

Indigenous knowledge holds a potential for the African economic development, particularly through trade. [32] Despite this, it remains inadequately protected, at both the international and regional levels. Compared to its counterparts protected through the conventional IP regime, indigenous knowledge is still prone to exploitation and misappropriation. This lack of enforceable legal framework for indigenous knowledge, particularly within the African regional system, has not helped with halting biopiracy, thus, indigenous knowledge continues to be appropriated and commercialised by multinational and multimillion foreign corporations, without the consent and fair compensation of indigenous people, who have, and continues to develop and preserve it across generations.[33] This study argues that the conventional IP regime does not adequately protect indigenous knowledge, thus, leaving indigenous people/communities vulnerable to being deprived the economic benefits they deserve as the custodians of this knowledge.

However, it is essential to acknowledge the World Intellectual Property Organization (WIPO)'s efforts in developing an international instrument for the protection of indigenous knowledge and the associated resources within the IP regime, the WIPO Treaty on Intellectual Property, Genetic Resources, and Associated Traditional Knowledge. Though still work in progress in that the negotiations to finalise the Treaty are still ongoing, this Treaty offers insights on how indigenous knowledge should be protected, especially within the IP aspects of trade, in this case, the AfCFTA Agreement. WIPO'S continued negotiations to advance an argument for using IP to protect indigenous knowledge thus, makes this Treaty relevant for this study, in guiding how the Annex to the IP Protocol can be framed.

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[31] Lonias Ndlovu and Amos Saurombe, 'Theories of intellectual Property and Access to Medicines in the Southern African Development Community (SADEC)' (2016) 37(3) Obiter <https://doi.org/10.17159/obiter.v37i3.11523> accessed 20 June 2023.
[32] n 19 above.
[33] See Emily Marden, 'The neem tree patent: International conflict over commodification of life' (1999) 22 Boston College International and Comparative Law Review 283; see also Sumathi Subbiah, 'Reaping what they sow: The Basmati rice controversy and strategies for protecting traditional knowledge' (2004) 27 Boston College International and Comparative Law Review 529.

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Furthermore, despite the IP Protocol being adopted by the African Union, its broad provisions still need to be strengthened through specific measures for protecting indigenous knowledge.[34] To support this claim, the Protocol requires the development of an Annex, which must incorporate specific measures for protection and enforcement.[35] However, the development and negotiation of this Annex is still pending and may take long to come into force considering the law-making process at the international and regional levels. Moreover, in terms of the combined reading of articles 33 of the IP protocol and 23(2) of the AfCFTA Agreement, the IP protocol (and the Annex to be developed) still needs 22 ratification/accession by member states for it to come into force.

It remains a question as to how African states must ensure adequate protection of indigenous knowledge within the trade regime like the AfCFTA Agreement. Though the IP Protocol mentions the reliance on other African and international instruments on protective measures for indigenous knowledge,[36] questions around the specific content of specific rules for the protection indigenous knowledge within the AfCFTA remains unanswered. For instance, while the IP Protocol requires transboundary sharing of information on the protection of indigenous knowledge,[37] it does not provide how this should be facilitated. This adds to the already existing burden of coordinating protective measures, contributing to the continued misappropriation of indigenous knowledge at the expense of indigenous people/communities.

Therefore, this study aims to develop specific guidelines for the protection of indigenous within the IP protocol of the AfCFTA Agreement. To this end, it examines the propriety of protection indigenous knowledge within the context of trade agreements. It then explores existing international and African regional framework, and best practices on the subject, and how these can inform the development of

[34] See article 18, which mentions disclosure, informed consent, access and benefit sharing, the need to draw inferences from African regional experiences, member states' best practices, exchange of indigenous knowledge between states, and establishment of databases and considerations of other external obligations. The concept of free, prior and informed consent contextualises one of the broad guidelines the IP Protocol includes. This will ensure a thorough explanation as to how the AU ought to use the principle to achieve its agenda 2063 objectives; see also article 19 and article 20 of the Protocol on Intellectual Property to the AfCFTA Agreement, 2022.
[35] Wording of articles 10, 18, 19 and 20 of the Protocol to the AfCFTA Agreement on Intellectual Property Rights, 2022.
[36] See article 4 of the IP Protocol, 2023.
[37] See article 5 of the IP Protocol, 2023.

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specific guidelines for the protection of indigenous knowledge within the IP Protocol. Drawing from the biopiracy,[38] and the IPR theories, and the concepts of FPIC, this study develops an integrated indigenous knowledge protection theoretical framework, which advances a holistic approach to protecting indigenous knowledge.

1.3. Aims and objectives

1. Aim

This study aims to develop guidelines for the protection of indigenous knowledge under the AfCFTA Agreement.

2. Objectives

1. Establish the meaning of and outline the justification for protecting indigenous knowledge under the trade regime;
2. Examine the propriety of protecting indigenous knowledge through trade regimes, specifically the AfCFTA Agreement;
3. Examine the existing international, African regional, and national frameworks for the protection of indigenous knowledge; and
4. To develop specific guidelines that will inform the Annex under the IP protocol and best ensure the effective protection of indigenous knowledge within the AfCFTA

1.4. Research questions

The main question in this study is:

1. How can indigenous knowledge be effectively protected within the IP protocol under the AfCFTA Agreement?

To answer the main question above, the following sub-questions are asked:

1. What is the rationale for protecting indigenous knowledge within trade regimes?

[38] Marcia Ellen DeGeer, 'Biopiracy: The appropriation of indigenous peoples' cultural knowledge' 179-208.

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2. To what extent do trade agreements offer proper legal mechanisms for protecting indigenous knowledge?
3. What are the existing approaches to protecting indigenous knowledge under current international, regional, and national knowledge governance systems?
4. What specific guidelines can inform the Annex under the IP protocol and best ensure the effective protection of indigenous knowledge within the AfCFTA?

1.5. Hypothesis

There is a strong need to develop specific legal guidelines to ensure effective protection of indigenous knowledge under the AfCFTA Agreement. Such specific legal guidelines can be distilled and developed from existing international, African regional, and national frameworks, best practices, and experiences in protecting indigenous knowledge.

1.6. Preliminary literature review

1. The problem of defining indigenous knowledge

Hossain and Ballardini acknowledge that no authoritative source defines indigenous knowledge, and they refer to it as the knowledge system that has been developed through the years by the practice of cultural norms that have been part of the lives of the artistic and indigenous communities.[39] In support of the definition, Long argues that integrating indigenous knowledge from one generation to another through stories, rituals, songs, teachings, and customary practices defines its distinct nature and needs to be preserved accordingly.[40]

This study, however, approaches indigenous knowledge as knowledge existing in a specific indigenous community without considering it based on its period of existence, as opined by Hossain and Ballardini. Hossain and Ballardini also feature the use of

[39] Kamrul Hossain and Rosa Maria Ballardini, 'Protecting Indigenous Traditional Knowledge Through a Holistic Principle-Based Approach' (2021) 39(1) Nordic Journal of Human Rights 51.
[40] Doris Estelle Long 'Traditional Knowledge and the Fight for the Public Domain' (2006) 5 John Marshall Review of Intellectual Property Law 321. Traditional knowledge is often developed in response to the cultural practices, passage of time, and the environment itself. Therefore, it makes it living knowledge that changes over time, compared to what it used to be long ago.

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human rights and environmental law[41] as an approach to protecting indigenous knowledge. In contrast, the approach of this study to safeguarding this knowledge is derived from the international trade regime. Although that is the case, as the study progresses, the discussion about economic development derives from a human rights perspective. Therefore, a human rights view in safeguarding indigenous knowledge may not be filtered out of the equation. This is justified because, although the objective is to ensure the economic development of the African community, indigenous people's rights to cultural heritage would then be enforced.

Furthermore, it is acknowledged that the definitional view by Long that indigenous knowledge exists as a collective right compared to other IPRs advances the idea of safeguarding this knowledge through a *sui generis* regime, therefore accommodating a whole indigenous community collectively.[42] This view supports how this study approaches indigenous knowledge. Unlike traditional IPR, indigenous knowledge is attributed to several indigenous people or groups. Indigenous knowledge presents unprecedented issues, which warrants the protection model to deviate from standard rules to accommodate it. Therefore, *sui generis* protection of this knowledge is the best approach.

Moody focused on using indigenous knowledge to support innovation in communities.[43] He also indicated that this knowledge intersects with eugenic articles found in respective indigenous communities.[44] It is argued that these eugenic articles need protection because they form part of the indigenous people's living.[45] Moody

[41] Kamrul Hossain and Rosa Maria Ballardini, 'Protecting Indigenous Traditional Knowledge Through a Holistic Principle-Based Approach' 52.
[42] Kamrul Hossain and Rosa Maria Ballardini, 'Protecting Indigenous Traditional Knowledge Through a Holistic Principle-Based Approach' 43.
[43] Oluwatobiloba Moody 'Trade-Related Aspects of Traditional Knowledge Protection' in John Borrows (ed) *Indigenous People and international trade* (Cambridge University Press 2020) 164.
[44] Eugenic/genetic articles are those articles that are drawn from natural biological resources. See Oluwatobiloba Moody 'Trade-Related Aspects of Traditional Knowledge Protection' in John Borrows (Eed) *Indigenous People and international trade* at 169-171. He defines indigenous knowledge as a knowledge forming part of the identity of an indigenous community, which is passed on from one generation to another.
[45] See Andreas Ebert and Johannes Engels, 'Plant biodiversity and genetic resources matter' (2020) 9(1706) Plants 1-10. Using indigenous knowledge on biological materials (genetic/metabolic) for medicinal, agricultural and/or research purposes. See Paul Kuruk (ed), *Traditional knowledge, genetic resources, customary law and intellectual property. A global primer* (Edward Elgar Publishing 2001); see also Shani Cohen *et al*, 'Assessment of the nutritional and medicinal potential of tubers from Hairy Stork's-Bill (*Erodium crassifolium L'Her*), a wild plant species inhabiting arid southeast Mediterranean regions' (2020) 9(1069) Plants.

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acknowledges the absence of universal definitional elements of the knowledge above, attributing such difficulty to its historical context.[46] This supports the fact that there are still difficulties in defining indigenous knowledge. This study develops a definitional element that should be used for the concept.[47]

It is essential to acknowledge the historical challenges of safeguarding indigenous knowledge. Chapter Two of this study explores the historical challenges to preserving indigenous knowledge, which led to the biopiracy of indigenous knowledge. As Chapter Three shows, how the TRIPS Agreement was negotiated indicates the historical issues in defining indigenous knowledge.

Oguamanam argues that the absence of a universal definition of this knowledge is a legal gatekeeper in protecting the knowledge.[48] It is impossible to protect something that is not classified. As a result, this view is essential in shaping issues related to the impact of colonialism on indigenous knowledge. Understanding how knowledge is classified as a historical effect of colonialism helps create protective mechanisms that address the after-effects of colonialism. Oguamanam argues that indigenous knowledge is a *sui generis* knowledge.[49] He attributes the difficulty in defining indigenous knowledge to the relationships of power resulting from the colonial history of developing countries.[50] He believes there are better ways of dealing with issues relating to its protection than categorising indigenous knowledge based on language.

Oguamanam submits that the uniqueness and identity of indigenous knowledge should be used to determine its validity, compared to requirements set by Western

[46] Oluwatobiloba Moody 'Trade-Related Aspects of Traditional Knowledge Protection' in John Borrows (ed) *Indigenous People and international trade* 171.
[47] This would prevent further confusions as to the definitional and conceptual meaning of the term "indigenous knowledge".
[48] Chidi Oguamanam, 'A Critical Examination of the African Legal Framework for Indigenous Knowledge' (2023) 67 Journal of African Law 1.
[49] Chidi Oguamanam, 'A Critical Examination of the African Legal Framework for Indigenous Knowledge' 5. The civilised communities are those indigenous communities in which such knowledge systems exist and operate.
[50] Chidi Oguamanam, 'A Critical Examination of the African Legal Framework for Indigenous Knowledge' 3. The language or way that indigenous knowledge is defined; see also Chidi Oguamanam 'Pressuring 'suspect orthodoxy': Traditional knowledge and the patent system' in Mathew Rimmer (ed) *Indigenous Intellectual Property: A Handbook of Contemporary Research* (Edward Elgar Publishing 2015).

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and European states.[51] This literature provides an alternative means for categorising indigenous knowledge, being an essential approach for this study. It helped develop a solution for classifying indigenous knowledge to create adequate safeguarding guidelines regarding the AfCFTA objectives.

Okediji holds that indigenous knowledge consists of critical skills in how certain things are done, innovations, teachings, and learnings passed over multiple generations as an integral part of a specific community.[52] This definition affirms the working definition of WIPO.[53] This approach to attending to the difficulties in defining indigenous knowledge is the most accepted means of dealing with indigenous knowledge. This study also adopts the working definition of WIPO. WIPO regards indigenous knowledge as a structure consisting of principles that guide the collection of knowledge and how traditional communities should be developed, considering that community's founding values and norms.[54]

Okediji further acknowledges the evolving nature of indigenous knowledge in that it follows external forces at a given time, even though she did not specify which factors influence such evolution of expertise.[55] How indigenous knowledge is viewed from her perspective is crucial in that it is acknowledged that it changes. This resonates with the argument that indigenous knowledge need not be ancient to be valid.

Even if something was developed very recently, as long as it can be proven that such conduct or knowledge-based article results from a particular indigenous community's norms and standards, it meets the definitional elements of the knowledge in question. This was guided by the literature on what indigenous knowledge is, or rather, what it ought to be, as discussed above.

[51] *Ibid*. The authenticity of knowledge itself should be used as a standard for knowledge to be regarded as indigenous, compared to what the standard of measure applied in other intellectual property rights such as patents, copyrights, trademarks, and geographical indications.
[52] Ruth Okediji, 'Traditional knowledge and the Public Domain' (2018) 176 Centre for International Governance Innovation Paper 1.
[53] World Intellectual Property Organization, 'Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore' (2016) 31(4) The Protection of Traditional Knowledge: Draft Articles <www.wipo.int/edocs/mdocs/tk/en/wipo_grtkf_ic31/wipo_grkf_ic_31_4.pdf> accessed 24 April 2023.
[54] Ruth Okediji, 'Traditional knowledge and the Public Domain' 2.
[55] Ruth Okediji, 'Traditional knowledge and the Public Domain' 2-3.

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Furthermore, Okediji indicates that efforts to safeguard indigenous knowledge through international and regional instruments while preserving indigenous knowledge's cultural and spiritual benefits have been criticised worldwide. [56] Such a backlash came from those who advocated culturalism, the Western and European states which stood to benefit from the non-recognition of the knowledge.[57] She highlights that the main argument for the non-recognition of indigenous knowledge is the non-novelty aspect.[58] This may have informed the non-protection of indigenous knowledge in agreements such as the TRIPS Agreement.

Chapter Three of this study explores the propriety of safeguarding indigenous knowledge through trade agreements. In so doing, the chapter considers the legal and ethical issues raised and then determines whether using trade agreements to safeguard indigenous knowledge is appropriate. It is preliminarily argued that the faulty intellectual property regime needs to be revisited to ensure the regime's compatibility with the needs of indigenous people while serving their purposes.

Okediji also raises additional challenges with defining indigenous knowledge, including multiple authorship,[59] the subject matter,[60] and the duration.[61] This study

[56] n 58 above.
[57] *Ibid*. Cultural advocates believed the knowledge should remain intact and pure of the Western system of protection, while Western and European states wanted to continue monopolising the knowledge for their advantage through non-recognition of the knowledge.
[58] Ruth Okediji, 'Traditional knowledge and the Public Domain' 3-4. See Stephen Munzer and Kal Raustiala, 'The uneasy case for intellectual property in traditional knowledge' (2009) 27 Cardozo Arts & Entertainment Law Journal 37-97. The claim that indigenous knowledge is a public domain is a result of the standards of protectable inventions as influenced by those who stood to benefit from the unprotected indigenous knowledge; see also Jamie Boyle, *The public domain: Enclosing the commons of the mind* (Yale University Press 2008). A knowledge that is regarded as a public domain cannot be protected in terms of the current intellectual property regime.
[59] Ruth Okediji, 'Traditional knowledge and the Public Domain' 5. Indigenous knowledge is a collective right and accordingly it is difficult to protect it in terms of the intellectual property regime. This is contested by scholars, however, that multiple invented work in the contemporary intellectual property rights regime does exist. See Lawrence Lessig, *Code: Version 2.0* (Basic Books 2006).
[60] The intellectual property rights regime protects components with a specific nature, and on such a standard traditional knowledge is regarded as unfit to be categorised and protected under the intellectual property rights regime. Scholars' ague, however, that the nature of intellectual property rights is not so unique that it renders indigenous knowledge unfit for the protection. See Daniel Gervais, 'Reinventing Lisbon: The case for a Protocol to the Lisbon Agreement (Geographical Indications)' (2010) 11 Chicago Journal of International Law 67; see also Justin Hughes, 'Champagne, Feta, and Bourbon: The spirited debate about geographical indications' (2006) 58 Hastings Law Journal 299.
[61] There are criticisms that the indefinite duration of indigenous knowledge makes it difficult to protect in terms of the intellectual property regime, as this would result in failure to manage the rights together with its potential of tampering with the accepted standards of the intellectual property rights regime. The fact that the intellectual property rights regime does not allow the repeated ownership of a right but rather allows an extension of the duration is argument enough that there is not much difference that will

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guides the standard definitional elements the knowledge should take. It develops guidelines for safeguarding indigenous knowledge, so eliminating a continuing debate about the Western/Eurocentric requirements of what is eligible for protection. The study also considers the difficulty that comes with ownership of indigenous knowledge, such as communal ownership and non-novelty characteristics, thus, contrary to the requirements by the IP regimes. The study recommended adapting the conventional IP regime to suit the needs of the indigenous people/ communities.

Okediji regards the discrepancies in the safeguarding of indigenous knowledge as a violation of indigenous people's rights.[62] This study deviates from this and integrates the principles of trade, IP, human rights, customary law, and administrative mechanisms, making up a *sui generis* regime and an adapted IP regime.

Bagley defines indigenous knowledge as *sui generis* traditional knowledge only within a specific indigenous community.[63] Such knowledge forms part of the cultural system of such people and is passed from one generation to another through oral illustration in terms of a specific culture.[64] Bagley also stresses that knowledge does not have to be ancient to be regarded as indigenous; instead, it is linked with the current economy and traditional innovation as a response to environmental changes.[65]

Bagley does not mention how indigenous knowledge links the economy and innovation. Chapters two and three of this study expand on the above assertion by exploring different ways indigenous knowledge has been used in the economic sector and how it will feature in the context of the AfCFTA Agreement, particularly in the agreement's objective for economic development in Africa.

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be brought by the recognition of indigenous knowledge in the intellectual property rights aspects of trade law. See Munzer and Raustiala (n 166) 78; see also *Eldred v Ashcroft*, 537 US 186 (2003).

[62] See United Nations Declaration on the Rights of Indigenous Peoples, 46 ILM 1013 (2007) [UNDRIP] <www.un.org/esa/socdev/unpfii/documents/DRIPSen.pdf> accessed 25 April 2023. Requires the protection of the rights of the indigenous people, and failure to so violates the intellectual property rights treaties' clauses for non-discrimination and the protection of cultural rights.

[63] Margo Bagley, 'Towards an effective indigenous knowledge protection regime. Case study of South Africa' (2018) 207 Centre for International Governance Innovation Paper 1.

[64] Margo Bagley, 'Towards an effective indigenous knowledge protection regime. Case study of South Africa' Paper 2.

[65] *Ibid*. See also John Harrington, 'Kenya: Traditional medicine and the law' (13 April 2016) www.africaresearchinstitute.org/newsite/blog/kenya-traditional-medicine-and-the-law/ accessed 26 April 2023.

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The study incorporates the definitional element in the context of the South African legislative framework.[66] This makes the research more relevant to this study, as the concluding chapters focus on the framework for safeguarding indigenous knowledge in South Africa. Bagley highlights that the ownership requirement is a big issue in achieving a breakthrough in preserving knowledge.[67]

Bagley also argues that there currently needs to be certainty about which institutions one may approach if there are disputes about indigenous knowledge, in addition to ownership issues, which would be defeated by *locus standi* had there been an institution of that kind.[68] From the provisions of the AfCFTA Agreement on indigenous knowledge protection, inferences may be drawn about how the above issue can be addressed. This study develops specific mechanisms that can be used to resolve disputes arising from indigenous knowledge. As a result, it closes the gap in dispute-resolution mechanisms, paving the way for a justified recognition of indigenous knowledge in future (free) trade agreements.

In contrast to the averment that indigenous knowledge exists in a specific community, as discussed above, Briggs argues that it differs from the international traditional knowledge being developed and taught in research institutions, independent firms, and institutions of higher learning.[69] Githui Wangu *et al.*, in support of the above, state that transferring indigenous knowledge to another place/community may cause the knowledge to be lost.[70] As a result, the knowledge must be contained.[71] They argue

[66] The Bill which has since passed into law, see section 1 of the Protection, Promotion, and Management of Indigenous Knowledge Act 6 of 2019. This provides that indigenous knowledge means the knowledge which has been developed in terms of the community standards, and has been categorised as a part of the social and cultural identity of the indigenous community, and such knowledge includes the functional nature of the knowledge, natural resources and the expressions of cultural nature. The AU has not developed this kind of definition in terms of the AfCFTA Agreement scope. This is an opportunity to develop a similar but more comprehensive definition of what indigenous knowledge would mean in the context of the AfCFTA Agreement which involves 54 states with different cultural perspectives on things and life generally.

[67] Indigenous knowledge does not have an owner. In whose name should it be protected? This is what the anti-protection advocates of indigenous knowledge argue and ask. See Margo Bagley, 'Towards an effective indigenous knowledge protection regime. Case study of South Africa' Paper 8.

[68] See the Department of Environmental Affairs, 'Traditional knowledge associated with rooibos and honeybush in South Africa' (2014), reporting on the identification of the San and Khoi people as originators of indigenous knowledge associated with rooibos and honeybush and instructing affected industries to negotiate benefit-sharing agreements with the NKSC.

[69] John Briggs, 'The use of indigenous knowledge in development: problems and challenges' (2005) 5 Progress in Development 2.

[70] Githui Wangu *et al*, 'The role of indigenous knowledge in socio-economic development' (2013) 6(14) International Journal of Science and Research 36.

[71] Keeping indigenous knowledge confined within a specific indigenous community.

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that knowledge being tacit means it cannot be easily modified. This study, however, counter-argues that the transfer of indigenous knowledge to another place does not make it less genuine.

Although developed from a specific indigenous community, Warren argues that indigenous knowledge cannot be confined to that community.[72] He argues that scientists, planners, and other technologists may use indigenous knowledge for development. This study adopts this perspective and uses it for the public protection of indigenous knowledge. It justifies why commercialising indigenous knowledge will not tamper with the so-called "original" knowledge. Chapter Two of the study expands on the commercialisation of indigenous knowledge.

Joelle explains the nature of indigenous knowledge and indicates that it has not been offered legal protection because of its collective secrecy (in some instances) and intuition.[73] Joelle's research is essential for this study as it highlights some of the issues that may have contributed to the non-recognition or non-protection of indigenous knowledge in the current legal framework.

Studying the root cause of the problem may help establish a solution. Understanding the nature of indigenous knowledge is essential for developing the rules or guidelines that speak to the practical situations experienced by the indigenous people/communities, especially when commercialising this knowledge. In addressing the challenges presented by Joelle above, this study elucidates how the documentation and ownership issues can be dealt with in the context of the AfCFTA Agreement.

Acknowledging the difficulty of defining indigenous knowledge, Dutfield suggests that the first approach to minimising problems[74] associated with indigenous knowledge is to treat it as an heirloom.[75] Furthermore, Dutfield argues that issues related to

[72] Dennis Michael Warren, 'Using indigenous knowledge in agricultural development' (1991) World Bank discussion paper. World Bank.
[73] Dountio Ofimboudem Joelle, 'The protection of traditional knowledge: Challenges and possibilities arising from the protection of biodiversity in South Africa' (LLM mini dissertation, University of the Western Cape 2011) <The protection of traditional knowledge: challenges and possibilities arising from the protection of biodiversity in South Africa (uwc.ac.za)> accessed 20 June 2023.
[74] Problems such as difficulty in defining, and the protection hereof. Graham Dutfield, 'TRIPS-Related aspects of traditional knowledge' (2001) 33(2) Case Western Reserve Journal of International Law 233-275.
[75] *Ibid*. Articles passed over generations.

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indigenous knowledge would be solved if the knowledge was given the same attention as scientific knowledge in Westernised societies.[76] This study agrees with the above as indigenous knowledge exists in an indigenous local community and develops over time as it passes from one generation to another.[77] This point of view is critical for this study, as it provides guidance on the way/manner in which indigenous knowledge may be protected in a manner that reflects African continent's needs.

The TRIPS Agreement has not protected indigenous knowledge owing to its non-fixation.[78] This study argues that this cannot be a sound argument because cultural expression used to be safeguarded as a branch of performers' rights. The TRIPS Agreement incorporated the 1961 Rome Convention,[79] and this should have been used as justification for safeguarding indigenous knowledge.[80] Unfortunately, however, it was not used. This study explores different justifications against incorporating indigenous knowledge in the IPR aspects of the international trade regime to distil the affected group's experiences and develop guidelines on safeguarding the knowledge.

The conflicting perceptions about definitional elements of indigenous knowledge, as depicted above, present the difficulty in defining indigenous knowledge. Scholars have different views about what it means, and this could have affected its recognition by various treaties that were supposed to protect knowledge as a legitimate right. This study develops one working definition that would guide future work on the concept of indigenous knowledge. It also explores the reasons for the non-recognition of indigenous knowledge by significant intellectual property and trade agreements for many years, whether they are sound enough to justify such non-recognition or minimal recognition of the knowledge.

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[76] Graham Dutfield, 'TRIPS-Related aspects of traditional knowledge' 240. See Martha Johnson, 'Research on traditional environmental knowledge: Its development and its role' in Martha Johnson *et al* (eds) *Lore Capturing traditional environment knowledge* (International Development Research Centre 1992). Indigenous knowledge is a structure of knowledge developed by a group of indigenous people, who then pass it to the next generations in such communities. In that sense, it is empirical and systematic in nature, and therefore scientific.

[77] See the CBD.

[78] Graham Dutfield, 'TRIPS-Related aspects of traditional knowledge' 252-253. Fixation of knowledge is the recording of it on a more secure device/writing it down.

[79] Rome Convention for the Protection of Performers, Producers of Phonograms and Broadcasting, 1961 (Rome Convention).

[80] See Graham Dutfield, 'TRIPS-Related aspects of traditional knowledge' 252.

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2. Theoretical perspectives on the safeguarding of indigenous knowledge

DeGeer approached the safeguarding of culture through the biopiracy theory, where it was outlined that big corporations[81] use the intellectual property's exclusory nature to appropriate cultural and indigenous knowledge from indigenous communities.[82] In support of DeGeer's approach, Reid also approaches appropriating indigenous knowledge from a biopiracy perspective.[83]

This study explored the biopiracy theoretical perspective on the issues emanating from an unlawful appropriation of indigenous knowledge for the benefit of Western countries at the expense of African indigenous communities. With the existence of biopiracy, economic development may still be achieved as the government would still get levies from the companies that appropriate indigenous knowledge. The above two scholars did not explore the effects of biopiracy on the indigenous people/communities *per se*.

This study, therefore, presents a new development of curbing biopiracy through trade instruments while ensuring that the indigenous people benefit from any possible commercialisation of indigenous knowledge-based resources.

Using the biopiracy perspective, Lamesa explored the legal framework of one of the African states on safeguarding indigenous knowledge.[84] Lamesa outlined that the

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[81] Sometimes referred to as bioprospectors. A cultural right is an umbrella body for cultural practices, including the knowledge associated with performing such cultural practices, which is sometimes known to a certain community, region or country, and therefore has become a norm. See Marcia Ellen DeGeer, 'Biopiracy: The appropriation of indigenous peoples' cultural knowledge' 179-208.

[82] DeGeer (n 81) above.

[83] Holding that it amounts to biopiracy where bioprospectors do not compensate the indigenous communities that are the genesis of a specific knowledge aspect. John Reid, 'Biopiracy: The struggle for traditional knowledge rights' (2009) 34(1) American Indian Law Review 77-98.

[84] Roba Assefa Lamesa, 'The protection of indigenous medicinal knowledge under intellectual property law: The case of Ethiopia in comparative perspective' (LLM in international business and economic law dissertation, Wollega University 2019) 1-92 <bing.com/ck/a?!&&p=6742990883b5a83dJmltdHM9MTY4NzIxOTIwMCZpZ3VpZD0yMDI3YTM2My0xZTQ0LTY1ZTctMTk1Ni1iMTk0MWY0NDY0NTcmaW5zaWQ9NTE4Mg&ptn=3&hsh=3&fclid=2027a363-1e44-65e7-1956-b1941f446457&psq=THE+PROTECTION+OF+INDIGENOUS+MEDICINAL+KNOWLEDGE+UNDER+INTELLECTUAL+PROPERTY+LAW%3a+THE+CASE+OF+ETHIOPIA+IN+COMPARATIVE+PERSPECTIVE&u=a1aHR0cHM6Ly93d3cucmVzZWFyY2hnYXRlLm5ldC9wcm9maWxlL1NhbGx5LU1hdHRoZXdzL3B1YmxpY2F0aW9uLzMwNTc1NDc2OF9QUk9URUNUSU5HX0lORElHRU5PVVNfS05PV0xFREdFX1VTU5HX0lOVEVMTEVDVFVBTF9QUk9QRVJUWV9SSUdIVFNfTEFXX1RIRV9NQVNBS0hBTkVfUEVMQVJHT05JVU1fQ0FTRS9saW5rcy81NzlmMzVmNzA4YWU4MDJmYWNiZWEzMDQvUFJPVEVDVElORy1JTkRJR0VOT1VTLUtOT1dMRURHRS1VU0lORy1JTlRFTExFQ1RVQUwtUFJP

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economic value of indigenous knowledge makes it very important and, as a result, justifies its legal protection. Therefore, different mechanisms for its protection were explored. To protect indigenous knowledge adequately, the legal framework should provide aspects of benefit sharing, prior informed consent, ownership mechanisms, penalties, and remedies. All these principles were not suggested in the context of a trade agreement. Therefore, this study suggests a comprehensive system that can safeguard knowledge.

Lamesa explored the propriety of protecting this knowledge under the intellectual property regime. The views shared by Lamesa are crucial for this study in that they guide answering whether and, if so, how the intellectual property aspects of the trade are adequate to provide mechanisms for safeguarding indigenous knowledge in the context of the AfCFTA Agreement. Therefore, using intellectual property in this case is contextualised compared to the general suggestion of using an intellectual property regime to safeguard this knowledge.

Furthermore, Lamesa considers the challenges of the intellectual property regime in safeguarding indigenous knowledge. Lamesa's study guided an understanding of the impact of the IP regime on indigenous knowledge.

Lwoga explored the nature of indigenous knowledge, which is relevant to the current study for the reasons outlined below.[85] Lwoga stated that requiring people to share their indigenous knowledge is often difficult, as it is individualised or treated as a secret, power, and economic tool.[86] In this chapter, Myers's model (2014) was used to explain this phenomenon. Therefore, this knowledge should be integrated with other knowledge systems to boost the economy in selected African countries.[87] This chapter depicts the difficulty caused by secrecy in indigenous knowledge systems, which may be an obstacle for commercial use. In contrast, the current study posits that informed consent must be obtained to commercialise indigenous knowledge using the guidance in the IP Protocol. The theory of FPIC contextualises this.

UEVSVFktUklHSFRTLUxBVy1USEUtTUFTQUtIQU5FLVBFTEFSR09OSVVNLUNBU0UucGRm&ntb=1> accessed 20 June 2023.

[85] Edda Tandi Lwoga, 'Indigenous Knowledge Management Practices in Indigenous Organizations in South Africa and Tanzania' in Patrick Ngulube (ed) *Handbook of research on social, cultural, and educational considerations of indigenous knowledge in developing countries* (IGI Global 2016).

[86] *Ibid.*

[87] South Africa and Tanzania.

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The operationalisation of indigenous knowledge systems may include several aspects such as policymaking, education, community engagement, filing, cultural recognition of rights, application, and IPR to put the knowledge in its practical sense.[88] This study argues for using IPR to safeguard indigenous knowledge, through which guidelines emanating from international, African regional, and national instruments and experiences shared in the literature are consulted.

Although this study explores the safeguarding of indigenous knowledge through the intellectual property regime/aspect of trade law/agreements, it is suggested that this should be done in terms of the needs of the African continent. When designing the IP Protocol, the AU considered this when it was outlined that the rules to be developed should consider the African instruments – including the experiences.

3. Safeguarding indigenous knowledge through trade agreements/ instruments

Scholars like Ncube *et al.* have argued for using free trade agreements to safeguard and preserve indigenous knowledge.[89] However, they believe that considering African experiences and initiatives to safeguard indigenous knowledge is necessary.[90] This is what the current study intended to do, as previously indicated.

Despite the efforts to use intellectual property aspects of international trade to protect indigenous knowledge, Hossain and Ballardini argue that there have been initial limitations.[91] Instead of what Ncube *et al.* said above, Hossain and Ballardini posit that IPRs are not designed to safeguard indigenous-based knowledge, and no reliance should ever be put on them to protect indigenous knowledge.[92] This study settles the

[88] See Munyaradzi Felix Murove, 'Indigenous knowledge systems discourse and inclusionality: An Afro-centric quest for recognition in a globalised world' (2018) 31(1) Journal for the Study of Religion 159-176 <Indigenous knowledge systems discourse and inclusionality: An Afro-centric quest for recognition in a globalised world (scielo.org.za)> accessed 21 June 2023; see also Lotte Hughes, *No-Nonsense Guide to Indigenous Peoples* (Verso 2003).
[89] For example, Ncube argues that intellectual property aspects in trade agreements would stimulate innovation, growth and development. Reference was made to the Canadian and European successes of safeguarding their knowledge through trade agreements. See Caroline Ncube *et al* 'Intellectual property rights and innovation: Assessing regional integration in Africa' (2017) 5 Working Paper 1 <www.openair.org.za> accessed 22 November 2022.
[90] Ncube (n 89 above).
[91] Kamrul Hossain and Rosa Maria Ballardini, 'Protecting Indigenous Traditional Knowledge Through a Holistic Principle-Based Approach' 56.
[92] Kamrul Hossain and Rosa Maria Ballardini, 'Protecting Indigenous Traditional Knowledge Through a Holistic Principle-Based Approach' 56-58.

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two conflicting perspectives on protecting indigenous knowledge through trade agreements by further exploring other scholarly work, as briefly explained below, and the AfCFTA Agreement.[93]

Gervais argues that a patent is the most relevant IPR regime that may be used to safeguard indigenous knowledge.[94] However, he stresses that the above right may not be appropriate because indigenous knowledge may not be patentable. The problem with its undocumented nature and the difficulty in describing an organic subject matter (in the case of genetic resources) in a textual form make it difficult to use this right as a form of protection.[95] The above, together with the fact that patents have been given to Western companies compared to indigenous communities,[96] poses the question of whether intellectual property aspects of trade can adequately safeguard indigenous knowledge.

This study posits a need to reform the IPR regime to safeguard and preserve indigenous knowledge in international trade and consider African experiences. As a result, this study explores the feasibility of adopting trade agreements to protect and preserve indigenous knowledge.

Lawal-Arowolo argues in favour of safeguarding indigenous knowledge against the backdrop of the international trade framework, owing to its economic capabilities.[97] He argues that the TRIPS Agreement, despite criticisms of its ability to protect developing countries, remains the best instrument through which all the issues about trade should

[93] With specific reference to the Protocol on Intellectual Property Rights to the AfCFTA Agreement, 2022. The study explores the previous trade agreements such as the TRIPS Agreement and assesses how it affected the safeguarding of indigenous knowledge. The study then examines the AfCFTA Agreement to ascertain whether on the face of it, it provides for a possible and adequate safeguarding of indigenous knowledge.
[94] Daniel Gervais, 'Traditional Knowledge & Intellectual Property: A TRIPS Compatible Approach' (2005) Michigan State Law Review 137-166 <https://scholarship.law.vanderbilt.edu/cgi/viewcontent.cgi?article=1723&context=faculty-publications> accessed 12 November 2022.
[95] Other rights are protected without even a need to document it, for example, copyright. Defining the main article matter and ownership issues are systematic and exclusionary mechanisms used to exclude indigenous people from seeking protection from the law, while the Western and European benefits from same. Daniel Gervais, 'Traditional Knowledge & Intellectual Property: A TRIPS Compatible Approach' 164.
[96] Emily Marden 'The neem tree patent: International conflict over the commodification of life' (1999) 22 Boston College International and Comparative Law Review 283.
[97] Ayofemi Lawal-Arowolo, 'Africa's traditional knowledge systems in global trade' (2022) Social Science Research Network 1-22 <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1613383#references-widget> accessed 08 May 2023.

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be dealt with. He does not mention whether such an opinion includes indigenous knowledge.[98]

Furthermore, Lawal-Arowolo does not mention using indigenous knowledge for trade purposes. This study considers the indigenous medicinal understanding in African communities. This is because it aims to answer, before even dwelling on the provisions and scholarly perspectives of the AfCFTA Agreement, whether free trade agreements are suitable for safeguarding indigenous knowledge. African experiences in trading in indigenous knowledge-based articles helped answer this question. Also, the current study considers the predictions on the use of trade agreements as randomly highlighted by scholars, including those introduced thus far.

Gibson argues that the benefits of using trade agreements outweigh the criticisms of using trade agreements to protect indigenous knowledge.[99] Reference is made to the Convention on Biological Diversity (CBD), which caters to indigenous communities' heritage and other ancillary rights.[100] The current study explored the extent to which the limitation test highlighted by Gibson may be applicable to settle a debate about the preservation of cultural rights and ancillary rights in contrast to the commercialisation of the knowledge to maximise profits through trading in indigenous knowledge. This will test Gibson's argument that commercialising indigenous knowledge outweighs its preservation and safeguarding needs. The perspective adopted in this current study is that while using indigenous knowledge for commercial purposes as per the objectives of the AfCFTA Agreement, the indigenous communities should also be catered for.

Lewinski[101] supports Gibson's argument on using trade agreements to preserve indigenous knowledge. He points out that article 39[102] the TRIPS Agreement promises future protection of indigenous knowledge under the ambience of the international

[98] *Ibid*.
[99] Johanna Gibson, 'Traditional knowledge and the international context for protection' (2004) 1(1) SCRIPT-ed 1-35.
[100] *Ibid*.; See also Michael Davis, 'Indigenous rights in traditional knowledge and biological diversity: Approaches to protection' (1999) 4(4) Indigenous Law Reporter 14.
[101] Sile von Lewinski, 'Indigenous heritage and intellectual property: Genetic resources, traditional knowledge and folklore' (2008) 37.
[102] Article 39 of the TRIPS Agreement. However, there should be a great transformation to be done on indigenous knowledge, for it to be protected in terms of the intellectual property regime; See also Jane Anderson, 'Indigenous/ Traditional knowledge and intellectual property' (2010) 36 Issue Paper, Centre for the Study of the Public Domain, Duke University School of Law.

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trade regime. Gibson argues that unique agreements can remedy the problems caused by the weak framework for safeguarding indigenous knowledge.[103] She argues that there can be no discussion about protecting indigenous knowledge through trade law, and no mention of IPR is made.[104] This study adopts the above approach by focusing on IPR and international trade law regimes. However, it aims to adopt another ancillary framework for safeguarding and preserving knowledge and interrogating it to guide how this knowledge should be efficiently protected.

Kuanpoth stresses that since the legal framework at a national level is applicable in the state that ratified a specific legal instrument, it is better to safeguard indigenous knowledge under international law. Therefore, such protective instruments and provisions are internationally recognised and applicable to all states.[105] Arguably, international protection is also needed in respect of indigenous knowledge.[106] From this perspective, Kuanpoth is paving the way for unique trade agreements that seek to advance the safeguarding of indigenous knowledge. An exploration of the literature on *sui generis* protection of indigenous knowledge is made to establish specific methods of protection that can be used for indigenous knowledge.

Moody acknowledges that protecting indigenous knowledge in the international context seems to be an ongoing challenge.[107] The rising trend to preserve indigenous knowledge through trade agreements[108] Indicates the focus on the domination of trade agreements in safeguarding knowledge in the setting of trade frameworks. The AfCFTA Agreement is an example of using trade agreements to protect indigenous knowledge.

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[103] Johanna Gibson, 'Trading places with communities: Towards the protection of traditional knowledge in the context of international trade and global markets' (2003) 2(1) Journal of International Trade Law& Policy 3.
[104] *Ibid*. Intellectual property law thus must be transformed to suit the needs of the indigenous people.
[105] Jakkrit Kuanpoth, 'Protection of traditional knowledge in the face of globalization: Balancing mechanism between CBD and TRIPS' (2009) 1(12) Thailand Law Journal.
[106] However, Dagne argues that *sui generis* protection of indigenous knowledge has been tried and have proved to be ineffective method of protection, thus developing countries, (including least developed countries) must adopt the flexible method of protecting indigenous knowledge. Tesh Dagne. 'The protection of traditional knowledge in the knowledge economy: Cross- Cutting challenges in international intellectual property law' (2012) International Community Law Review 137.
[107] Oluwatobiloba Moody 'Trade-Related Aspects of Traditional Knowledge Protection' in John Borrows (Ed) *Indigenous People and international trade* 164. And the rapid attempts to protect indigenous knowledge through trade agreements add to the problem.
[108] Agreements such as the United States-Mexico-Canada Agreement and the Comprehensive and Progressive Agreement for Trans-Pacific Partnership.

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Moody argues that safeguarding indigenous knowledge through trade agreements should be done cautiously, in consultation with the indigenous people, and should not occur in a vacuum.[109] While Moody focuses on the elimination of biopiracy concerning indigenous knowledge and the protection of cultural rights, this study approaches the protection from the commercial, trade, and IPR perspectives. Despite the differences, the current study guides the feasibility of using trade agreements to safeguard indigenous knowledge.

While the above literature presents the possibility of using trade agreements to safeguard indigenous knowledge, there are concerns about the unsuitability of some IPRs, which need to be appropriate to ensure the preservation of the knowledge.[110] Therefore, this study explores different IPR regimes in the international trade context to establish specific guidelines that address the discrepancies created by the general provisions on preserving indigenous knowledge.

4. The AfCFTA Agreement and indigenous knowledge

The AU launched the AfCFTA Agreement on 15 June 2015 during its first summit on African economic development,[111] as part of the 50-year vision plan by the AU called Agenda 2063. Agenda 2063 is attributed to the fast-tracked adoption of the AfCFTA Agreement,[112] and this was achieved in 2019.[113] The African Union and its 54 members[114] believe that the AfCFTA Agreement can accelerate continental integration and increase the economic effectiveness of African trading states.[115] Article 3 provides that a single market must be created through which services and goods will be

[109] Oluwatobiloba Moody 'Trade-Related Aspects of Traditional Knowledge Protection' in John Borrows (Ed) *Indigenous People and international trade* 165-166.
[110] Patents for example, are granted only for a limited period, which would be unsuitable for indigenous knowledge. Indigenous knowledge is a cultural right, and its application should be indefinite. Furthermore, the intellectual property regime which requires that there be a certain owner, is intersecting with indigenous knowledge which this study suggest it be owned by respective communities, even though represented by community leaders.
[111] Summit focusing on trade aspects of economic development as a continental integration plan. See Thandika Mkawandire (ed) African Intellectuals: Rethinking Politics, Language, Gender and Development (Zed Books: 2005).
[112] *Ibid.*
[113] Sheila Kairu, 'The AfCFTA , the benefits, the challenges, the opportunities and the role of the ARSO' (2019) <https://www.businessinsider.co.za/sa-to-benefit-most-from-africa-trade-area-2018-3> accessed 10 May 2023.
[114] Current number of states that have acceded to the agreement.
[115] Joseph Manboah-Rockson, "Grabbing the 'Bull' by the 'Horns'": critical analysis of the establishment of AfCFTA ' (2021) 11 Open Journal of Political Science 301.

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facilitated with the sole idea of boosting economic integration in Africa, negotiating markets for goods and services, paving the way for the creation of continental customs, promoting sustainable development and enhancing the competitiveness of the state parties; promoting industrial development; and resolving challenges faced by the state parties.

Article 7 of the AfCFTA Agreement provides that state parties must negotiate on issues about IPR, among others. Chidede contends that safeguarding and enforcing IPR is critical to achieving African economic freedom.[116] He argues that IPR encourages investors to invent new ideas. Therefore, the AfCFTA Agreement could develop the African economy using IPRs. Although this work was published before the advanced IP Protocol, it recognised the IPR's capabilities in achieving the AfCFTA Agreement's objectives, including economic development in Africa. The current study builds on the foundation regarding how helpful IPR may be for ensuring African economic success.

Ncube outlines how the provisions of the IP Protocol may need to be framed to align with the objectives of the AfCFTA Agreement.[117] She draws inferences from the complete protocols to predict how the protocol on intellectual property rights would be structured.[118] She does so by being guided by past research on intellectual property in Africa.[119] She suggests the inclusion of provisions acknowledging public interest and public health as essential issues in Africa. The current study argued that to be effective, the IP Protocol needs to provide specific and strong mechanisms for the protection of indigenous knowledge as one of the critical aspects of economic development – an objective of the AfCFTA Agreement.

There is difficulty in defining indigenous knowledge, yet Ncube suggested that there be no repetition of definitions because they are already covered in the AfCFTA

[116] Talkmore Chidede, 'The AfCFTA Protocol on Intellectual Property Rights -what, when, how and why?' (2021), <http://www.ipchair.uct.ac.za/news/AfCFTA -protocol-intellectual-property-rights-%E280%93-what-when-how-and-why > accessed 10 May 2023. Particularly the objectives pertaining sustainable and socio-economic development.
[117] Caroline Ncube, 'Intellectual property and the African continental free trade area: lessons and recommendations for the IP protocol' (2022) 21(2) Journal of International Trade Law and Policy 105-121.
[118] Caroline Ncube, 'Intellectual property and the African continental free trade area: lessons and recommendations for the IP protocol' 107.
[119] Caroline Ncube, 'Intellectual property and the African continental free trade area: lessons and recommendations for the IP protocol' 108.

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Agreement.[120] She outlines that the protocol only guides member states to develop harmonised approaches to safeguarding IPRs.[121] The current study argued that the AfCFTA Agreement must provide a consolidated definition of indigenous knowledge. Therefore, having the protocol's guidance on the universal meaning of indigenous knowledge is a good idea. Be that as it may, since the IP Protocol does not provide a consolidated meaning of indigenous knowledge, guidelines are provided based on its broad nature. Through that, a consolidated meaning of indigenous knowledge was developed.

Adebola acknowledges that while the harmonisation of indigenous knowledge is a continual task of WIPO and other international and regional organisations, the current work, including the IP Protocol, may guide the development of specific legal guidelines for protecting the knowledge.[122] This is the gap between the existing literature and the desired objectives of the AfCFTA Agreement. How do we achieve the goals through the protection of indigenous knowledge? This study steps in to provide such specific legal mechanisms, therefore answering the previous question.

In the discussion, Adebola highlights that a specialised instrument should be used to safeguard indigenous knowledge as it is not protected in most international, regional, and national instruments like the TRIPS Agreement, owing to non-compliance with the protection requirements.[123] This study adopts an opposite approach, that the protocol, though not in its best form, is an adequate approach for safeguarding indigenous knowledge in that it provides guiding principles from which guidelines for protecting indigenous knowledge will be drawn.

According to the AXIA IX report, including indigenous knowledge as part of IPR boosted intra-African trade.[124] Furthermore, integrating IPR into the Agreement is said to be an approach to prevent excess exports and imports, therefore strengthening the local African market.[125] The report also acknowledges that the IP Protocol addresses

[120] *Ibid*.
[121] Caroline Ncube, 'Intellectual property and the African continental free trade area: lessons and recommendations for the IP protocol' 113.
[122] Titilayo Adebola, 'Mapping Africa's complex regimes: Towards an African centered AfCFTA Intellectual Property Protocol' (2020) 1 African Journal of International Economic Law 233-290.
[123] Caroline Ncube, 'Intellectual property and the African continental free trade area: lessons and recommendations for the IP protocol' 114.
[124] ARIA IX Report.
[125] ARIA IX Report 123.

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the link between IPR and indigenous knowledge.[126] However, it fails to stress the extent to which the two are interlinked. This study closes the gap by linking indigenous knowledge and IPR.

The report also mentions that the success of the Association of South-East National (ASEAN) regional framework is adequate ground for the justified inclusion of an indigenous knowledge provision in the IP Protocol.[127] However, there needs to be more knowledge on how the ASEAN regional framework can be used to justify including indigenous knowledge in a trade agreement. Therefore, this study explores this specific framework only to draw inferences concerning the use of trade agreements to safeguard indigenous knowledge.

Ncube *et al.* believe that indigenous knowledge remains a potential economic commodity through which trade can be boosted. As a result, it would be wise to include it in the agenda for a continental free trade agreement (CFTA). However, they do not detail how indigenous knowledge is a commodity for trade in the medicinal, agricultural, food, biotechnology, and art fields. This study explores different fields through which the economy is developed using indigenous knowledge in trade-related activities.

5. The IP Protocol and indigenous knowledge

Designed to, among others, to establish various practices and methods and tools used in managing indigenous knowledge in the *Dlangubo* village, and , Zimu-Biyela's study explored ownership protocols that can be used by communities to protect indigenous knowledge.[128] The study also explored the practices of the Dlangubo community to establish an understanding of indigenous knowledge by indigenous people in indigenous communities and to develop mechanisms for preserving indigenous knowledge. It suggested different mechanisms, such as library filing, to document and preserve knowledge ranging from farming to entertainment.

[126] ARIA IX Report 125. The relationship which the TRIPS Agreement failed to recognize; See also Chidi Oguamanam, 'Plant breeder's rights, farmers' rights and food security: Africa's failure of Resolve and India's wobbly leadership' (2018) Indian Journal of Law and Technology.
[127] ARIA IX Report 129.
[128] Acquinatta Nomusa Zimu-Biyela, 'The management and preservation of indigenous knowledge in Dlangubo village in KwaZulu-Natal, South Africa' (PhD in Literature and Philosophy, University of South Africa 2016) <thesis_biyela_a.pdf.pdf (unisa.ac.za)> accessed 21 June 2023.

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As much as the above thesis differs from this study's research methodology and given that it was pure philosophy of culture, the study reveals what it is like for the indigenous people to integrate an intellectual property regime into their indigenous cultural property. The thesis is relevant in this study as it outlines the experiences of African people in terms of the management of indigenous knowledge, for example, the Khoisan community experiences and best practices. Since this study aims to develop specific guidelines for safeguarding indigenous knowledge in within the AfCFTA, the mechanisms developed may distil relevant aspects of preserving indigenous knowledge.

The development of the IP Protocol was discussed by Ncube and Laltaika, who suggested that the Protocol must include provisions on the consideration of public interest as provided for in articles 7 and 8(1) of the AfCFTA Agreement.[129] Indeed, this has materialised as the preamble of the Protocol and now includes provisions that consider the African experiences in developing the rules on safeguarding indigenous knowledge. Therefore, scholarly writings of this nature positively shaped what is currently provided for in the IP Protocol.

The inadequate provisions in the existing AfCFTA Agreement, as outlined by Ncube and Laltaika above, were the motivation for safeguarding indigenous knowledge in the IP Protocol.[130] The above view was based on the feminist theoretical perspective that women are vulnerable and mostly experience hurdles concerning protecting their rights. However, this study posits that the effect of an inadequate legal framework on indigenous knowledge is experienced by both genders, as there is no provision in any instrument that favours men over women.

It has also been stated that the IP Protocol should include provisions on how the states must engage in *sui generis* laws on safeguarding indigenous knowledge.[131] This has yet to be included in the IP Protocol, meaning the states are left with an unanswered question: How? This is the aspect of the knowledge gap this study addressed.

[129] Caroline Ncube and Eliamani Laltaika, 'A new intellectual property organization for Africa?' (2013) 8(2) Journal of Intellectual Property Law and Practice 114-117 <EM-JITL220008 105..121 (emerald.com)> accessed 21 June 2023.
[130] Caroline Ncube and Eliamani Laltaika, 'A new intellectual property organization for Africa?' 111.
[131] Caroline Ncube and Eliamani Laltaika, 'A new intellectual property organization for Africa?' 115.

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6. The existing framework, strategies, and experiences on the protection of indigenous knowledge

1.6.6.1. International instruments

a) WIPO Treaty on Intellectual Property, Genetic Resources and Associated Traditional Knowledge

After a decade of negotiations, the WIPO finalised an international treaty focused on indigenous knowledge and intellectual property. This Treaty is a milestone achievement that paves the way for international law on indigenous knowledge protection. There is still a need to develop other instruments based on this Treaty, where indigenous people are central to decision-making processes on issues involving their knowledge. The Treaty is also important because of its stance to mandate access and benefit-sharing agreements, and prior art disclosures, introducing penalties, and developing databases for indigenous knowledge. This study later outlines that a Treaty like this is a step towards ensuring comprehensive protection of indigenous knowledge within the IP regime.

b) The United Nations Convention on Biological Diversity, 1992 (hereafter the Convention on Biological Diversity)

The UN Convention on Biological Diversity[132] was developed with the sole aim of protecting biological diversity.[133] It was adopted in May 1992 in Kenya during the Conference for the Adoption of the CBD.[134] As part of its implementation plan, the UN General Assembly adopted a resolution[135] during its 74th session, where it was held that indigenous practices are essential in preserving biodiversity and, therefore, have prospects of contributing to well-being and sustainable development in indigenous communities.[136] The General Assembly considered the interests of the indigenous

[132] The United Nations Convention of Biological Diversity, 1992 (hereinafter, the Convention of Biological Diversity)
[133] Preamble of the CBD.
[134] Convention on Biological Diversity, Key international instrument for sustainable development <https://www.un.org/en/observances/biological-diversity-day/convention> accessed 112 May 2023.
[135] 74/221: The implantation of the Convention on Biological Diversity and its contribution to sustainable development.
[136] *Ibid.*

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people in the drafting of the Convention, which resembles one of the commitments of the IP Protocol.[137]

Article 8(a) provides that state parties must implement specific guidelines to protect biological materials categorised as protected. This set of principles guides how the state parties to the agreement should develop mechanisms to safeguard protected areas such as national parks. This may include setting up most protected areas. This study may also draw inferences on the provisions of article 8(d), which extends the scope of protection to all other private and public lands. This provides an alternative direction in developing guidelines on protecting indigenous knowledge.

Articles 8(j) and (k) suggest that developing legislative or regulatory provisions may be used to protect biodiversity. This is essential for developing legal guidelines to safeguard indigenous knowledge. This study uses the above requirements to justify the need to preserve indigenous cultures through guidelines.[138]

Read with the IP Protocol,[139] the Convention prescribes a mutual agreement between states to access genetic materials.[140] This provision paves the way for developing specific guidelines on safeguarding genetic resources of indigenous origin to commercialise in that it guides on prior informed consent. This is a perspective of the biopiracy theoretical perspective that was discussed above.

Article 27 of the Convention is a significant guide in developing guidelines for safeguarding indigenous knowledge by prescribing dispute-resolution mechanisms. Inferences may be drawn from this to include specific guidelines on safeguarding indigenous knowledge under the AfCFTA Agreement by structuring how the dispute resolution should be conducted if it were to be adopted in the guidelines.

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[137] Protocol on Intellectual Property Rights to the Agreement establishing the African Continental Free Trade Area, 2022. State parties of the AfCFTA Agreement agree to introduce a protocol that is inclusive and balanced, and focused on the interests of the indigenous people, and encourage innovation and development. See Adebambo Adewopo *et al*, 'Negotiating the Intellectual Property Protocol under the Agreement establishing the African Continental Free Trade Area: Priorities and opportunities for Nigeria' 35.

[138] See article 10(c), which provides that the protection of indigenous knowledge should be done in consideration of the indigenous cultural practices. This provision with the support of the commitment of the Protocol, should be used to develop guidelines that caters for the interests of the indigenous people.

[139] Article 20 of the IP Protocol which outlines the state parties' obligation to protect genetic resources.

[140] Article 15 of the CBD.

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Article 16(1) treats indigenous technologies like modern technologies in biodiversity protection. It is therefore argued that this provision serves as a guide for how indigenous knowledge should be safeguarded, as suggested in this study. Treating indigenous knowledge as any other knowledge will pave the way for catering to indigenous communities' needs. This approach to indigenous knowledge will ensure due diligence, as measures of access and safeguarding of the knowledge will be examined.

c) *The United Nations Convention for the Safeguarding of the Intangible Cultural Heritage (hereafter the Convention on Cultural Heritage)*

The United Nations Convention for the Safeguarding of the Intangible Cultural Heritage (Convention on Cultural Heritage)[141] was adopted in 2003, and more than 180 states have since acceded to the instrument, becoming a key international instrument for safeguarding indigenous-related aspects. The Convention draws inferences from the Universal Declaration on Human Rights.[142] It considers cultural heritage a driving force in sustainable development and cultural diversity. Indigenous communities are seen as a vehicle for safeguarding cultural heritage. It is its recognition of indigenous communities and their practices that this study finds justifiable to explore. By recognising indigenous knowledge,[143] this Convention may guide the development of guidelines on safeguarding knowledge under the AfCFTA Agreement.

Article 11 of the Convention on Cultural Heritage requires state parties to explore available avenues to protect culture. This study argues that cultural heritage as an umbrella concept for, among others, indigenous knowledge and the direction taken by state parties under this provision may help with the objectives of his study. As a means to safeguard this cultural heritage, article 2(3) provides that the state parties may consider the identification of a specific cultural heritage, document the same, conduct thorough research on the subject matter, preserve and promote same, and enhance and transmit using various methods such as education. These methods guide how

[141] Convention for the Protection of the Intangible Cultural Heritage, 2003.
[142] Universal Declaration on Human rights, 1948.
[143] Article 2 of Convention for the Protection of the Intangible Cultural Heritage, 2003. Intangible cultural heritage means “practices, representations, expressions, knowledge, skills, and instruments, objects, artefacts and cultural spaces” interlinked with the indigenous communities, groups and individuals.

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indigenous knowledge can be best protected. From this provision, the concept of knowledge management is apparent and may be used in this study.

Article 12 records cultural heritage kept within a specific state's jurisdiction.[144] The current study aimed to develop specific and practically relevant guidelines for safeguarding indigenous knowledge. Article 13(2) suggests the establishment of institutions that will facilitate the safeguarding of cultural heritage.[145] Inferences may be drawn from such a provision to ensure that an office is specifically created to oversee the administration of laws on safeguarding indigenous knowledge.

States are also obligated to invest financially in the administration of such an office.[146] This investment would ensure that the responsible office has adequate funds to foster adequate protection of indigenous knowledge. Furthermore, article 15 allows member states to involve the communities concerned with cultural heritage in their activities to safeguard the culture. This also affirms the principle/objective of the Protocol on Intellectual Property Rights – as previously discussed.

d) *The International Treaty on Plant Genetic Resources for Food and Agriculture*

The International Treaty on Plant Genetic Resources for Food and Agriculture was adopted to introduce the preservation and controlled use of eugenic articles on food production, benefit sharing, and fair access principles.[147] From this Treaty, a vital inference may be drawn from article 10(2) provisions, which provide for a benefit-sharing system. Even though this provision speaks about a system or a model, this study refers to the above principles to develop guidelines on how benefit sharing may be facilitated between the trading partners and those holding the indigenous cultural right over a particular invention.[148]

e) The United Nations Declaration on the Rights of Indigenous People

[144] Article 12(1) of the Convention for the Protection of the Intangible Cultural Heritage, 2003.
[145] Article 13(2) Convention for the Protection of the Intangible Cultural Heritage, 2003.
[146] Article 13(d) of the Convention for the Protection of the Intangible Cultural Heritage, 2003.
[147] Article 1(1) of the International Treaty on Plant Genetic Resources for Food and Agriculture.
[148] See the provisions of article 12 and 13 of the International Treaty on Plant Genetic Resources for Food and Agriculture.
which extends on the principles of access and benefit-sharing.

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The United Nations Declaration on the Rights of Indigenous People is another international instrument that was adopted through resolution 61/295 of the UN Assembly[149] and contains important provisions for safeguarding indigenous knowledge. Member states must implement measures to protect indigenous knowledge through their interpretative skills.[150] Cultural expressions, including indigenous expressions, are to be protected by this instrument.[151]

Although this international instrument appears to be human rights-based/centric, it is essential for this study. As much as this study approaches safeguarding indigenous knowledge through international trade law, the Declaration will elucidate why indigenous knowledge should be protected. This is incorporated into this study in line with the theoretical perspective proposed. This is considering that the indigenous people's rights to culture will ensure that the guidelines under the AfCFTA Agreement do not violate indigenous people's rights.[152]

f) The Mataatua Declaration on Cultural and Intellectual Property Rights of Indigenous Peoples (hereafter the Mataatua Declaration)

The Mataatua Declaration on Cultural and Intellectual Property Rights of Indigenous Peoples 1993 (Mataatua Declaration) presents excellent pointers for developing guidelines on safeguarding indigenous knowledge in terms of the AfCFTA Agreement. The Declaration states that state parties must adopt policies to protect the indigenous people's cultural property, customs, and practices.[153] This Declaration outlines that the current IPR framework must adequately safeguard cultural knowledge. Therefore, protection mechanisms must be established.[154] Article 1(3) of the Mataatua Declaration suggests considering ethical perspectives to protect indigenous knowledge.[155]

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[149] United Nations Human Rights, Office of the High Commissioner <https://www.ohchr.org/en/calls-for-input/2023/call-inputs-report-establishing-monitoring-mechanisms-national-and-regional#:~:text=The%20Declaration%20was%20adopted%20through,the%20situation%20of%20indigenous%20peoples.> accessed 12 May 2023.
[150] Article 13(2) of the United Nations Declaration on the Rights of Indigenous People, 1993.
[151] Article 11(1) of the United Nations Declaration on the Rights of Indigenous People, 1993; See also article 31(1) of the United Nations Declaration on the Rights of Indigenous People, 1993.
[152] Actually, it is argued that the indigenous people's rights to have their indigenous knowledge protected is the basis of intellectual property regime protection.
[153] Preamble of the Mataatua Declaration, 1993.
[154] Article 1(2) of the Mataatua Declaration,1993.
[155] Article 1(3) of the Mataatua Declaration, 1993.

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From the recommendations in articles 1 and 2, this study may draw inferences on how the states have agreed to ensure that indigenous knowledge is protected. The recommendations cover the indigenous people, states, and national and international agencies. This protection may be achieved through the multi-focus approach above instead of only the state's responsibility to protect the knowledge. This study explores the feasibility and prospects of gaining this knowledge through the above approach, which also assists the recommendations this study seeks to develop.

1.6.6.2. Regional instruments

a) The Swakopmund Protocol on the Protection of Traditional Knowledge and Expressions of Folklore

The Swakopmund Protocol on the Protection of Traditional Knowledge and Expressions of Folklore[156] came into effect on 9 August 2010, with an amendment on 6 December 2016.[157] In terms of article 5, safeguarding indigenous knowledge does not have to follow certain formalities. This approach proposed in this study does not subject the knowledge to strict requirements. Therefore, this protocol is believed to help develop guidelines for safeguarding indigenous knowledge under the AfCFTA Agreement.

Keeping records of preserved indigenous knowledge may also be adopted to develop guidelines on shielding indigenous knowledge.[158] Section 6 of the protocol addresses the criticism that indigenous knowledge does not have an owner by providing that local/indigenous communities will be the holders of the indigenous knowledge. This protocol provides for assignment and licensing,[159] benefit sharing,[160] a disclosure provision,[161] compulsory licensing, and an indefinite duration of protection[162] as a deviation from the standard recognition requirements in the IPR field.

[156] The Swakopmund Protocol on the Protection of Traditional knowledge and Expressions of Folklore (Swakopmund Protocol). It was adopted by the Diplomatic Conference of ARIPO, as an African regional instrument on the safeguarding of indigenous knowledge and expressions of folklore.
[157] Section 1 of the Swakopmund Protocol.
[158] Transparency principle. See Article 5(2) of the Swakopmund Protocol.
[159] Article 8 of the of the Swakopmund Protocol.
[160] Section 99 of the Swakopmund Protocol.
[161] Section 10 of the Swakopmund Protocol.
[162] Section 12 of the Swakopmund Protocol.

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The need to establish administration systems and enforcement procedures[163] may also help safeguard indigenous knowledge. Furthermore, the protocol provides remedies to indigenous knowledge holders in cases where the protection provisions have been violated. States must develop sanctions, treatments, and enforcement procedures.[164] All of the above may contribute to achieving this study's primary objective by guiding the development of legal and policy guidelines on how best indigenous knowledge can be protected. Therefore, this is a promise in achieving the economic development aim of the AfCFTA Agreement.

b) Annex VIII to the Bangui Agreement

Annex VIII to the Bangui Agreement[165] also covers the safeguarding of indigenous knowledge.[166] In the period preceding 24 February 1999,[167] The definition of folklore included the traditional practices and inventions of indigenous communities.[168] Therefore, It is presumed that folklore under Annex VII of the current Agreement caters to indigenous knowledge. State parties are required to adopt and implement measures for the promotion of cultural heritage.[169] The member states must carry out the record and classify their cultural heritage.[170]

This is a progressive provision from which specific guidelines may be developed to determine what constitutes indigenous knowledge so that it can be protected. This will also guide future research about indigenous knowledge, as the classification of indigenous expertise would have been established.

Since the IP Protocol mentions the option of *sui generis* protection of technologies,[171] it is a good idea to draw inferences from this new protection method as an alternative to intellectual property rights.[172] However, the study did not develop an alternative

[163] Section 11 of the Swakopmund Protocol.
[164] Section 23 of the Swakopmund Protocol.
[165] Hereinafter referred to as Bangui Agreement.
[166] Title 1, part 1 of the Bangui Agreement.
[167] Before the Bangui Agreement was revised.
[168] Tshimanga Kongolo, 'The new OAPI Agreement as revised in February 1999' (2000) 3 Journal of World Intellectual Property 718-720.
[169] Article 48 of Bangui Agreement.
[170] Article 72 Bangui Agreement.
[171] Article 17 of the Protocol on Intellectual Property Rights to the AfCFTA Agreement, 2022.
[172] Ayoyemi Arowolo, 'A continental approach to protecting traditional knowledge systems and related resources in Africa' (July 1, 2011) Social Science Research Network 1 <https://ssrn.com/abstract=1313582> accessed 13 May 2023.

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model but provided guidelines on implementing the *sui generis* protection model. Developing indigenous people is an ongoing process; therefore, developing policies to protect them *sui generis* would also be an appropriate protection method.[173]

Arowolo highlights that a *sui generis* protection model means the vesting of rights in the indigenous owners,[174] This study acknowledges that indigenous communities, as represented by their heads of state and assenting to the AfCFTA Agreement, support the idea of their indigenous knowledge. As a result, the *sui generis* model suggested by Arowolo becomes relevant in channelling the development of specific protection guidelines for indigenous knowledge.

In contrast, McManis holds that the *sui generis* model may not adequately safeguard indigenous knowledge.[175] In support of that, Reichman argues that this approach creates an opportunity for treating the protection of indigenous knowledge as a political war in that it tends to result in over-protection, which, in the end, fails to benefit the indigenous communities.[176] The above differentiation reveals scholarly disagreements about the best method of safeguarding indigenous knowledge.

It would be justified to explore the argument for and against the safeguarding of indigenous knowledge using a *sui generis* model since this study seeks to examine different approaches of the said model to develop guidelines for safeguarding measures in terms of the AfCFTA Agreement.

c) African Charter on Human and Peoples' Rights

The African Charter on Human and Peoples' Rights is an African regional framework that seeks to protect the human rights of citizens of member states by prescribing

[173] See Burton Ong, 'Harnessing the biological bounty of nature: Mapping the wilderness of legal, socio-cultural, geo-political and environmental issues' in Burton Ong *Intellectual Property and Biological Resources* (Marshall Cavendish Academic 2005) 9. That a certain *sui generis* approach (plant variety) may be used to protect a new, unique, universal and stable aspects of plant varieties, as a legal framework of protection.
[174] See Ayoyemi Arowolo, 'A continental approach to protecting traditional knowledge systems and related resources in Africa' 20. That indigenous communities (holders) are at liberty to grant or deny access to their indigenous knowledge.
[175] Charles McManis, 'Fitting traditional knowledge protection and biopiracy claims into the existing intellectual property and unfair competition framework; in Burton Ong Intellectual Property and Biological Resources (Marshall Cavendish Academic 2005).
[176] Jerome Reichmaan, 'Legal hybrids between the patents and copyright paradigms' (1994) Columbia Law Review 2432.

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measures on how these rights may be protected. Although the Charter is a purely human rights instrument and this study adopted the regional trade approach, it may assist in developing tailor-made guidelines for safeguarding indigenous knowledge. Even though the Charter does not explicitly mention indigenous knowledge, it covers the same through its provisions on cultural rights. The Charter provides that everyone can participate in the practices of their community.[177]

State parties must protect the oral and traditional values of the traditional communities.[178] By this wording, it is argued that the Charter recognises traditional communities' integration and structural nature.[179] The duty of protecting such traditional values could guide this study towards determining how the state may be obligated to preserve indigenous knowledge. This study may draw inferences from the rationale behind obligating the states to protect these values. The Charter also includes the state duty to help citizens of member states in terms of economic development,[180] which is a principle this study may consider in the recommendations.

d) ASEAN Declaration on Cultural Heritage (hereafter the ASEAN Declaration)

As a reference point, the ASEAN Declaration explored the nature of regional safeguarding of indigenous knowledge to boost African intra-trade. Composed of a few Asian states,[181] this Declaration makes provision for a duty to safeguard artistic and intellectual heritage[182] through the development of legislation and policies on the safeguarding of culture,[183] and acknowledging the principle of correct assignment.[184]

State parties must eliminate theft, unlawful trade, and transfer of indigenous knowledge.[185] The development of inventories, databases and institutional

[177] Article 17(2) of the African Charter on Human and Peoples' Rights.
[178] Article 17(3) of the African Charter on Human and Peoples 'Rights.
[179] And this arguably include the use of indigenous knowledge as a way of everyday living.
[180] Article 20 of the African Charter on Human and Peoples' Rights; See also article 22 of the African Charter on Human and Peoples' Rights.
[181] Brunei Darassalam, Cambodia, Indonesia, Lao, Malaysia, Myanmar, Philippines, Singapore, Thailand and Viet Nam. See the Preamble of the Declaration.
[182] Article 4 of the ASEAN Declaration on Cultural Heritage; See also article 5 of the ASEAN Declaration on Cultural Heritage. ASEAN Declaration on Cultural Heritage
[183] Article 8 of ASEAN Declaration on Cultural Heritage.
[184] Article 9 of the ASEAN Declaration on Cultural Heritage
[185] Article 10 ASEAN Declaration on Cultural Heritage. See article 11 ASEAN Declaration on Cultural Heritage, which entitles citizens of the member states to benefit in the commercial utilisation of the indigenous knowledge.

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repositories[186] for safeguarding indigenous knowledge is an approach that this study considers in its attempt to advance the refuge for indigenous knowledge under the AfCFTA Agreement. Holistically, this Declaration presents a progressive and detailed approach to safeguarding cultural knowledge. Therefore, this study seeks to draw inferences from its provisions for indigenous knowledge under the AfCFTA Agreement.

1.6.6.3. National framework

Although this study considers other African national frameworks on indigenous knowledge protection, South Africa is the primary national framework focus, as indicated in the study structure below.

a) *The Policy Framework for the Protection of Indigenous Knowledge through the Intellectual Property System 2008 (South Africa)*[187]

The Policy Framework for the Protection of Indigenous Knowledge through the Intellectual Property System 2008 is a national (South African) policy framework that paved the way for adopting and amending several pieces of legislation, as seen in the discussion below. It amended the current intellectual property framework, with recommendations including *sui generis* protection of indigenous knowledge, community inclusion, benefit sharing, and prior informed consent. Although the policy may hold little weight, this study explores it to draw inferences from the recommendations made in the policy to establish relevant and specific guidelines that address the safeguarding of indigenous knowledge.

b) *Protection, Promotion, Development and Management of Indigenous Knowledge Act*

South Africa has adopted the most comprehensive legislation[188] on safeguarding indigenous knowledge. Indigenous knowledge is defined, and recommendations such

[186] Article 13 of the ASEAN Declaration on Cultural Heritage.
[187] The Policy Framework for the Protection of Indigenous Knowledge through the Intellectual Property System 2008 <Policy framework for the protection of indigenous knowledge through the intellectual property system: Draft> accessed 12 November 2024.
[188] 6 of 2019.

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as benefit sharing are catered for.[189] The Act is applied and binding on all the people living in South Africa, and indigenous knowledge is registered in terms of the Act.[190] The Act also has provisions for establishing an office facilitating the administration and protection of indigenous knowledge.[191] The protection measures in the Act include recruiting highly skilled individuals.[192]

Furthermore, the Act introduces provisions for community inclusion.[193] The Act also provides for indigenous knowledge involvement in trading indigenous knowledge or related information.[194] Lastly, dispute-resolution mechanisms and penalties for violating the legislative provisions are included in the Act.[195] All the abovementioned requirements would inform this study as a point of reference in developing the legal and policy guiding principles that bind all parties to the AfCFTA Agreement, helping boost the African economy by trading in indigenous knowledge.

Zondi's research is relevant to this study in terms of understanding the above Act. Zondi analysed the Protection, Promotion, Development, and Management of Indigenous Knowledge Act 6 of 2019 and ancillary laws on protecting nature, particularly indigenous-based natural resources.[196] Although Zandi did not deeply analyse the legislation, it presents the political discrepancies that existed in colonial

[189] See section 1 of Protection, Promotion, Development and Management of Indigenous Knowledge Act 6 of 2019.
[190] Section 2 of the Protection, Promotion, Development and Management of Indigenous Knowledge Act 6 of 2019.
[191] Section 4 and section 5 of the Protection, Promotion, Development and Management of Indigenous Knowledge Act 6 of 2019.
[192] Section 6 of the Protection, Promotion, Development and Management of Indigenous Knowledge Act 6 of 2019.
[193] Section 12(1) and section 12(2) of the Protection, Promotion, Development and Management of Indigenous Knowledge Act 6 of 2019. Also, the option of a specific office acting as a curator in cases where there is no community attached to a certain knowledge. This often happen where the knowledge has crossed boarders of a certain indigenous communities and/ or there are disputes over a certain knowledge belonging to a certain indigenous community; See also Section 12(3) of the Protection, Promotion, Development and Management of Indigenous Knowledge Act 6 of 2019.
[194] Section 25 of the Protection, Promotion, Development and Management of Indigenous Knowledge Act 6 of 2019; See also Section 26 of the Protection, Promotion, Development and Management of Indigenous Knowledge Act 6 of 2019.
[195] Section 27 of the Protection, Promotion, Development and Management of Indigenous Knowledge Act 6 of 2019; See also Section 28 of the Protection, Promotion, Development and Management of Indigenous Knowledge Act 6 of 2019 respectively.
[196] Nokwanda Bathabile Zondi, 'A dissection of the Protection, Promotion, Development and Management of indigenous Knowledge Systems Act 6 of 2019: substantive issues and foreseeable consequences for creative industries in South Africa' (LLM in Intellectual Property Law dissertation, University of Cape Town 2021) <A dissection of the Protection, Promotion, Development and Management of indigenous Knowledge Systems Act 6 of 2019: substantive issues and foreseeable consequences for creative industries in South Africa - Search (bing.com)> accessed 20 June 2023.

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South Africa that led to the non-protection of indigenous knowledge and how the Act would bring change in the intellectual property regime of South Africa. It is therefore argued that this study would build more on the foundation laid by Zandi by critically analysing the Act.

c) The Intellectual Property Laws Amendment Act

The Intellectual Property Laws Amendment Act[197] was passed to ensure the safeguarding and preservation of indigenous knowledge as part of IPR and to amend some laws[198] to achieve this. Section 8 emphasises the need for the Minister to provide guidelines on how the dispute-resolution process would unfold. That alone suggests a need to establish guidelines for settling indigenous knowledge and IPR disputes. Throughout the Act, it is provided that the Minister responsible for respective aspects of intellectual property and indigenous knowledge shall issue guidelines. This follows the broad recommendations or amendment of the provisions. This indicates that several guiding principles on the legislative issues, as amended, need to be developed.

d) The Access to Genetic Resources Regulation

The Access to Genetic Resources Regulation[199] is a South African regulation that addresses accessing and using bio-genetic articles, including indigenous ones. These regulations provide access, benefits, and an option of having a community leader who should act as an intermediary between the indigenous community and the person intending to use their indigenous knowledge.[200] This is a community engagement activity and benefit-sharing idea that could be useful in achieving the objectives of the AfCFTA Agreement, as explored in this study.

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[197] 28 of 2013.
[198] Performers' Protection Act 11 of 1967, in respect of the recognition and protection of performances of indigenous practices; Copyright Act 98 of 1978, in respect of indigenous literary work, the establishment of an office dedicated for indigenous knowledge together with the database/ record of the indigenous knowledge recognised in terms of the Act; Trade Marks Act 194 of 1993, regarding the recognition of indigenous expressions and terms and the registration of same in terms of trademark law; Designs Act 195 of 1993, on the recognition and protection of indigenous designs, and registrations thereof.
[199] South Africa's Bioprospecting, Access and Benefit-Sharing Regulatory Framework, 2014 (hereinafter referred to as the BABS Regulation)
[200] Article 1 of the BABS Regulation. The guidelines also use the terms indigenous knowledge and traditional knowledge interchangeably to mean one thing, which is the same approach adopted in this study.

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The regulations also provide the informed consent requirement to regulate the indigenous knowledge industry. All these guidelines are created for the indigenous communities holding the right to knowledge, those who intend to use the knowledge (users), and the regulators. This regulation is a complete set of rules covering all aspects of indigenous knowledge. Therefore, these regulations are an essential framework from which this study drew inferences to achieve its aims and objectives.

Raduba explored the safeguarding of indigenous knowledge through land restitution mechanisms and as a means to encourage food security in South Africa.[201] As the research considers the propriety of using land restitution mechanisms to preserve indigenous knowledge, it is relevant for this study as it will help unpack African experiences with indigenous knowledge and the law. Appropriate mechanisms for developing guidelines for safeguarding indigenous knowledge may be distilled from Raduba's research.

1.7. Definitions of key concepts

1. AfCFTA Agreement

An agreement by the AU was developed and adopted to boost intra-African trade.[202] The agreement outlines different ways that the AU intends to make the Agenda 2063 a success, including but not limited to the IP Protocol. Fifty-four African states are currently members of the agreement.

2. Indigenous knowledge

Although this study acknowledges the difficulty in defining the concept of indigenous knowledge, WIPO defines this knowledge as heirloom knowledge, expertise, and norms that are instigated and conserved and that form part of a specific community's

[201] Deborah Raduba, 'The use of land restitution as a means of protecting indigenous knowledge systems for the purpose of realising food sovereignty' (LLM in Constitutional Litigation dissertation, University of Kwazulu-Natal 2019) <Dissertation D Raduba after examination.pdf (ukzn.ac.za)> accessed 20 June 2023.
[202] It is a product of agenda 2063 of the African Union. See African Union, 'About the AfCFTA', <https://au-AfCFTA .org/about/> accessed 21 May 2023.

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complex culture and heritage.[203] Another definitional element of the concept lies in its flexibility as it is passed from generation to generation.

3. IPRs

These are property rights that give rise to intellectual activities.[204] It may be argued that these rights protect one's intellectual creations by limiting others from using such rights without the owner's consent. These rights include copyrights, patents, and trademarks, among others.[205]

4. Trade

This is the process of exchanging goods and services for capital or in kind between two or more persons.[206] In the context of indigenous knowledge, this involves commercialising indigenous knowledge-based articles such as medicines, music, or other agricultural products.

1.8. Significance of the study

The AfCFTA Agreement was established mainly to facilitate intra-African trade and boost the economic status of the African continent.[207] Viewing this from an economic perspective, the economic theory that provides for using IPR to boost economic development is relevant, as discussed in the preceding sections. The Agreement mentions indigenous knowledge as one of the articles to be protected.[208] A knowledge gap exists where the IP Protocol's broad normative structure does not solve the protection issue. Also, the intellectual property regime does not align with the reality

[203] See WIPO, 'Traditional knowledge' <https://www.wipo.int/tk/en/tk/#:~:text=Traditional%20knowledge%20(TK)%20is%20knowledge,its%20cultural%20or%20spiritual%20identity> accessed 23 April 2023.
[204] Be it in the industrial, art, literary or scientific fields. See Ethel Teljeur, Intellectual Property Rights in South Africa (The Edge Institute 2017).
[205] *Ibid.*
[206] Vesna Grozdanovska et al, 'International Business and Trade' (2017) 31(3) International journal of science: basic and applied research 105.
[207] See the Preamble of the AfCFTA Agreement.
[208] Livia Ilie, 'Intellectual Property Rights: An Economic Approach' (16-17 May 2014) 21st International Economic Conference 2014, IECS 2014 448 <www.sciencedirect.com> accessed 20 June 2023. With Africa rich in indigenous knowledge that supports fields such as medicine, agriculture, and arts, this knowledge is likely to be integrated with other commodities in the market for commercialisation. If Western and European companies have been benefiting from these indigenous based resources, surely it is possible to use them in the benefit of Africa.

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of indigenous knowledge systems favouring Westerners and Europeans, as Chapter Two explores through the theory of biopiracy.

1.9. Research methodology

Research methodology is a term used to describe the process through which research is conducted. It seeks to inform why a study is undertaken, how the problem has been described, the formulation of the hypothesis, and what research method has been applied or is to be used. It explains why a specific approach to a study is adopted over another.[209]

Several research methodologies can be used to achieve research objectives. This includes descriptive research that explains a set of facts at a given time.[210] As a result, a researcher reports what has happened or what is happening. In contrast, the analytical research method allows a researcher to use the available data to analyse and make a preliminary conclusion about the facts.[211] Applied research enables a researcher to do fact-finding to benefit a particular group or individuals, while fundamental research concerns only an overview of a specific theory.[212]

Furthermore, quantitative research concerns the extent of data or numbers, while qualitative research concerns a variable's quality.[213] While conceptual research is mainly concerned with theoretical perspectives,[214] empirical research enables the researcher to obtain information about a specific variable being studied, directly or indirectly, to produce a desired outcome.[215]

This study adopted the doctrinal research methodology, which is a form of qualitative research. This research method is best used to develop legal conclusions by analysing

[209] Mimansha Patel and Nitin Patel, 'Exploring research methodology: Review article' (2019) 6(3) International Journal of Research& Review 1; See also Suzila Ishak Irny and Alinda Alias Rose, 'Designing a strategic information system: Planning methodology for Malaysian Institutes of Higher Learning (isp-ipta)' (2005) 6(1) Issues in Information System.
[210] Shanti Bhushan Mishra and Shashi Alok, *Handbook for Research Methodology: A compendium for scholars& researchers* (Educreation Publishing 2017).
[211] Mishra (2017) 2.
[212] Mishra (2017) 3.
[213] *Ibid*.
[214] n 216 above.
[215] Mishra (2017) 4.

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court decisions, legislation, doctrines, policies, and other authoritative instruments.[216] Through this, the study explored the experiences of selected African communities indirectly from existing literature, official studies and reports, as well as online sources, explored theoretical perspectives, and analysed such information and the legal instruments on indigenous knowledge.

The above methodical approach efficiently uncovers unknown facts through a desktop mode by reviewing available legal instruments.[217] This research perspective allows the researcher to make proper suggestions and provide guidance for future research.[218] This study investigates existing legal and policy framework for safeguarding indigenous knowledge and to identify approaches relevant to the guidelines for protecting indigenous knowledge.

1.10. Ethical considerations

The institutional ethics on research-based projects, as adopted by the University of Venda, stipulate that the researcher must consider the fundamental rights of the participants. The participants' identities should also be protected unless consent has been given to waive the above right. The researcher must have obtained consent before undertaking the research. However, this study did not require human interaction, and all the relevant information was accessed via desktop research. Since the study is concerned with a sensitive cultural issue, in cases where it was discovered that information referred to or to be referred to in the study offends the artistic realm of indigenous communities, such as either declared or submitted with a disclaimer, the study considered leaving out such information.

The researcher considered the possible biased information on the sources of indigenous culture, and to ensure academic credibility, he consulted multiple sources on each aspect of indigenous experiences to make an informed and unbiased conclusion. To ensure that indigenous knowledge is safeguarded to address African

[216] Mullekyal Devadasan Pradeep, 'Legal research- Descriptive analysis on doctrinal methodology' (2019) 4(2) International Journal of Management, Technology, and Social Sciences 95.
[217] Mullekyal Devadasan Pradeep, 'Legal research- Descriptive analysis on doctrinal methodology' 95.
[218] Mullekyal Devadasan Pradeep, 'Legal research- Descriptive analysis on doctrinal methodology' 101.

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indigenous people's challenges, this study considered the studies conducted in consultation with African indigenous communities compared to reporting other reports on indigenous culture.

This study focused on primary and secondary data, Case law, legislation, the texts of modern scholars, policies, and regional treaties were explored. The institutional plagiarism policy requires that students present only intellectual material belonging to them. Materials used must be referenced appropriately and sources acknowledged. This study recognises all the sources consulted. In so doing, footnotes and bibliography referencing methods were used. In cases where the information used during the study cannot be referenced, the researcher undertook to obtain prior consent to use such materials.

1.11. Overview of chapters

1. Chapter One introduces the thesis, the underlying backdrop to the study, the problem statement, the purpose of the study, its aims and objectives, and the research methodology adopted to achieve the study's aim.

2. Chapter Two is an expository analysis of the theoretical lens through which the study is viewed, hints at and justifies the approaches encapsulated in chapters three, four, and five, and informs the conclusions in chapter Six.

3. Chapter Three explores the propriety of using trade agreements such as the AfCFTA Agreement to safeguard indigenous knowledge.

4. Chapter Four analyses the existing framework and approaches to safeguarding indigenous knowledge at the international and regional levels.

5. Chapter Five explores the framework for safeguarding indigenous knowledge in South Africa. It features the experiences of African indigenous

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communities and trade guidelines and principles developed by global trade scholars and experts.[219]

6. Chapter Six sets out and discusses the guidelines distilled in chapters four and five. It comprehensively establishes a guidelines structure to inform policy considerations for an Annex to the IP Protocol on indigenous knowledge and the associated resources.

7. Chapter Seven concludes the study by summarising the problems, aims, objectives, findings, and recommendations. Lastly, it also proposes areas for future research.

1.12. Scope and limitations of the study

This study examined the existing international, African regional, and selected African national frameworks on indigenous knowledge and their appropriateness for safeguarding it. It also establishes guidelines that would best ensure the safeguarding of indigenous knowledge in the context of the AfCFTA Agreement. It concerns legal frameworks that affect diverse issues globally and in Africa. As a result, it is a challenging journey to embark on, as the study would have to find common ground for the benefit of all African countries represented in the AU's AfCFTA Agreement. It must be noted that there are ongoing processes to develop measures to safeguard indigenous knowledge worldwide. Still, this study is limited to the AU and its members of the AfCFTA Agreement. The study also did not consult respective indigenous people/ communities, which is also an area for future studies.

[219] See Henning Grosse Ruse-Khan *et al*, 'Principles for intellectual property provisions in Bilateral and Regional Agreements' (2013) 44(18) International Review of Intellectual Property and Competition Law 878.

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CHAPTER TWO

SAFEGUARDING INDIGENOUS KNOWLEDGE IN THE AfCFTA AGREEMENT: CONCEPTS AND THEORIES

2.1. Introduction

This chapter identifies and examines the appropriate theoretical and conceptual framework that justifies the protection of indigenous knowledge in the context of international trade.[1] This chapter conceptualises indigenous knowledge and examines how the IP law regime has been deployed to protect indigenous knowledge over time. The chapter explores the concepts and theories of biopiracy, Free, Prior and Informed Consent (FPIC), and IPR protection. A discussion of IP theories is essential for this study as some scholars have advanced the possibility of safeguarding indigenous knowledge, such as with IPR.[2] Indigenous knowledge is part of the cultural property over which indigenous peoples can assert cultural rights,[3] and IP regimes are more Eurocentric,[4] meaning there is a relevancy gap. This means the IP regime does not

[1] With specific reference to the Protocol on Intellectual Property Rights to the Agreement Establishing the African Continental Free Trade Area (AfCFTA Agreement) hereafter referred to as the IP Protocol.
[2] See Constance Nhambura, 'Indigenous people and the protection of intellectual property rights (IPRs) in Zimbabwe' in Sylvanus Gbendazhi Barnabas, *Indigenous and Minority Populations - Perspectives from Scholars and Writers across the World* (SDG Publishers Compact 2023) 1-28. Constance argues that the National IP Policy developed by the Zimbabwean government was not clear as to how cultural IPR would be safeguarded. As a result, states should develop unique IP policies to safeguard cultural heritage of the indigenous communities/ people, failure of which there would be a continued exploitation of the indigenous communities of their knowledge and/ or knowledge-based resources. See also Charles Norchi; 'Indigenous knowledge as intellectual property' (2000) 33(3) Social Capital as a Policy Resource 387-398. As cited in this study, Alfred Radcliffe-Brown published an ethnography on the indigenous Onge community. The Onge social group/ community has lived for many years, where they were involved in trade and production. One of their customary rules related to ownership resembled the control abstract which approximates the modern intellectual property regime. For example, a person would find a tree in the bush, mark it and make it known that he intends to use it for boat making, and a result, others were bound to respect such entitlement. The Onge community also performs some cultural songs during special occasions, and only the composer of such song is allowed to perform it. Any other person who performs such sing would be guilty of theft. Norchi argues that despite this IP viability of indigenous knowledge, the IP regime still does not address the nature of indigenous knowledge. It is acknowledged that treating indigenous knowledge as an IPR would ensure that indigenous community's benefit from the inventions of their efforts, and ensure they preserve these indigenous knowledge-based resources and the knowledge itself. These criticisms pave a way for an adaptable IP regime into safeguarding indigenous knowledge, specifically in the context of the AfCFTA Agreement.
[3] See Samukelisiwe Nkwanyana, 'Conserving cultural heritage and the usage of indigenous knowledge: A case study of the Zululand District Municipality, Kwazulu-Natal' (2018) 7(2) African Journal of Hospitality, Tourism and Leisure 1-12.
[4] See Xoliswa Mpanza, 'Intellectual property laws and the protection of traditional knowledge in South Africa: An evaluation of the current intellectual property systems and its protection of traditional and indigenous knowledge' (LLM dissertation, University of KwaZulu-Natal 2014) <Xoliswa Mpanza,

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recognise indigenous knowledge, such as patents, as something IPR can protect.[5] That said, there is a need to establish Afrocentric protective measures for Africa's indigenous knowledge systems in the context of trade to strengthen Africa's position in international trade.

The importance of indigenous African knowledge in the context of international trade has been addressed elsewhere,[6] and is further examined during this study. For now, however, it should be stressed that the IP Protocol has shown its way by providing broad legal and policy space for member states to develop specific and harmonised norms to protect indigenous knowledge in the context of the AfCFTA Agreement.[7]

Nonetheless, the present concern is the identification and examination of concepts and theories to justify African indigenous knowledge protection in the context of trade. This chapter explores biopiracy theory, which outlines an indigenous community's desire to be included in decision-making processes and benefit allocation.[8] These principles, arguably, are derived from the concept of FPIC. Lastly, this chapter explores the theories of IPR protection, paving the way for a discussion of indigenous knowledge as an intellectual property right. The chapter examines these theories and concepts through the lens of some case studies on the tussle involved in protecting indigenous knowledge, especially in Africa.

'Intellectual property laws and the protection of traditional knowledge in South Africa: An evaluation of the current intellectual property systems and its protection of traditional and indigenous knowledge' (LLM dissertation, University of KwaZulu-Natal 2014) - Search (bing.com)> accessed 03 September 2023; See also Joseph Githaiga, 'Intellectual property law and the protection of indigenous folklore and knowledge' (1998) 5(2) Murdoch University Electronic Journal of Law <Githaiga, Joseph --- "Intellectual Property Law and the Protection of Indigenous Folklore and Knowledge" [1998] MurdochUeJlLaw 13; (1998) 5(2) Murdoch University Electronic Journal of Law (austlii.edu.au)> accessed 03 September 2023. See also Gary Meyers and Olasupo Owoeye, 'Intellectual Property Law and the Protection of Indigenous Australian Traditional Knowledge in Natural Resources' (2012) 22(2) Journal of Law, Information and Science 56.

[5] Thomas Greaves, 'Tribal Rights' in Stephen Bush *et al* (Eds) Valuing local knowledge: Indigenous peoples and intellectual property rights (Island Press 1996). While this may be true, there is still a chance to reform the IP regime to meet the requirements of indigenous knowledge as an IPR. The next chapter delves much into this inquiry by exploring the propriety of safeguarding indigenous knowledge through the IP aspects of trade agreements.

[6] Moraka Makhura, 'Economic perspective to indigenous knowledge in rural development' (2004) South African Rural Development Quarterly 39. See also Caroline Ncube *et al*, 'Intellectual property rights and innovation: Assessing regional integration in Africa' (2017) 5 Working Paper 1.

[7] Articles 18, 19 and 20 of the IP Protocol.

[8] See Dieter Dorr, 'Biopiracy and the right to self-determination of indigenous peoples' (2019) 53 Phytomedicine 308.

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This chapter first discusses the concept of indigenous knowledge and examines the framework and existing literature on the definition of indigenous knowledge. Second, the chapter discusses the theoretical and conceptual perspectives on safeguarding indigenous knowledge in the context of the AfCFTA Agreement. The chapter proceeds to explore the debate on African development and delves into the theory of sustainable economic growth. Lastly, it paves the way for discussing the propriety of safeguarding indigenous knowledge through trade agreements by hinting at the most applicable theoretical perspective.

2.2. The concept of indigenous knowledge

According to WIPO, indigenous knowledge refers to "knowledge, skills, and practices that are developed, sustained, and passed on from generation to generation within a community, often forming part of its cultural or spiritual identity".[9] Indigenous knowledge includes but is not limited to technical, agricultural, ecological, scientific, biodiversity-based, and medicinal knowledge.[10]

Despite the preceding, existing scholarly research still needs to grapple with the challenge of a general conceptualisation of indigenous knowledge, especially within the context of trade. For instance, Ngulube and Onyacha recognise the growing interest in indigenous knowledge and argue that there should be a proper definition before dealing with critical issues about this knowledge, such as socio-economic development, restoring dominance, and cultural preservation. They noted that indigenous knowledge is rooted in a particular indigenous community, informed by experiences, and transmitted orally among the generations, where the primary purpose is to benefit the same indigenous communities.[11]

In some instances, the challenge of a consensus on what constitutes indigenous knowledge has been attributed to its non-recognition in the global trade framework

[9] See WIPO, 'Traditional knowledge' <https://www.wipo.int/tk/en/tk/#:~:text=Traditional%20knowledge%20(TK)%20is%20knowledge,its%20cultural%20or%20spiritual%20identity> accessed 23 April 2023.
[10] *Ibid.*
[11] Patrick Ngulube and Omwoyo Bosire Onyacha, 'Conceptualizing the knowledge of traditional and indigenous communities using informetrics approaches' in Patrick Ngulube, *Handbook of research on theoretical perspectives on indigenous systems in developing countries* (IGI Global 2020).

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represented by the WTO's TRIPS Agreement.[12] Although the TRIPS Agreement reflects the development goal of harmonising intellectual property systems, it presents challenges in safeguarding indigenous knowledge. The appropriation of indigenous knowledge as a TRIPS Agreement narrative focuses on medicinal, agricultural, expressive art, and commercialisation.[13] Three main issues are possible for the above non-recognition: ownership, the object's nature, and indigenous people's rights.[14]

IPR of trademarks, copyrights, patents, and designs are concerned with an identified article, an identified author or inventor, and defined restrictions of an article.[15] Examining indigenous knowledge dictates that it fits outside this categorisation of IPR. This is because, in most cases, there is no easily identifiable author or owner of indigenous knowledge-based resources or an identifiable article, and the knowledge is not time-restricted as it is passed from one generation to another. The basis through which indigenous communities argue for safeguarding indigenous knowledge differs from what the IP regime is created for, for instance, benefit sharing, which may be a legal or an ethical norm.[16]

Problems in defining indigenous knowledge in the context of the IP regime make it difficult to identify an inventor or author. Indigenous knowledge exists as a collective article in a community, and it may be challenging to determine who developed the knowledge. Furthermore, the issue of the object's nature is curtailed by the provisions of article 9(2) of the TRIPS Agreement, which only extends the application of IPR to expressions and not ideas,[17] which the indigenous knowledge system is perceived as.

The IP regime requires categorising rights into one or two IPRs, which may need to be better achieved in the context of indigenous knowledge based on its unique

[12] TRIPS Agreement. See Gerard Bodeker, 'Traditional medical knowledge, Intellectual property rights and benefit sharing' (2003) 11 Cardozo International & Comparative Law Review 785.
[13] Where the Western appropriate these resources, patent them as their inventions, mainly because they were not protected by anyone before. See Arewa Olufunmilayo, 'TRIPS and Traditional Knowledge: Local Communities, Local Knowledge, and Global Intellectual Property Frameworks' (2006) Marquette Intellectual Property Law Review 156.
[14] See Daniel Gervais, 'Traditional Knowledge & Intellectual Property: A TRIPS Compatible Approach' 149.
[15] See Daniel Gervais, 'Spiritual but not intellectual? The protection of sacred intangible traditional knowledge' (2003) 11 Cardozo Journal of International & Comparative Law 467.
[16] See Jerome Reichman 'Of green and legal kudzu: Repackaging rights in subpatentable innovations' (2000) 53 Vanderbilt Law Review 1743.
[17] Article 9(2) of the TRIPS Agreement.

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character requiring protection.[18] Problems with the definition in the context of the AfCFTA Agreement are that the Agreement must attempt to define indigenous knowledge – not even the IP Protocol. That is also why the definition of indigenous knowledge should be explored and examined to contextualise it in the context of this Agreement.

Despite the absence of consensus on indigenous knowledge, guidance on its conceptual scope can be found in existing national statutes, treaties, research, and official reports.[19] In no particular order, the discussion below explores and interrogates existing definitions of indigenous knowledge in relevant treaties, legislation, and official reports to advance the concept of indigenous knowledge that supports the development of guidelines for its protection within the AfCFTA Agreement.

Interest in indigenous knowledge issues grew during the 1980s among environmentalists and agriculturalists concerned with socio-economic development.[20] These environmentalists and agriculturalists believed the technological and scientific approach to agricultural and environmental issues needed to be revised to achieve farm production and environmental preservation.[21] They emphasised the limited expertise of the government in addressing environmental and farming issues, as well as matters incidental to the two areas.[22] In addition to a policy framework,[23] it was

[18] This includes the issue of passing it to other generations and non-limitation/ restrictive use by the indigenous communities.
[19] This chapter also considers the ongoing work by the Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore (IGC) towards the safeguard of indigenous knowledge in the context of international property law <National Gazette No 38809 of 19-May-2015, Volume 599 (cer.org.za)> accessed 03 September 2023.
[20] Diane Michael Warren, *Linking scientific and Indigenous agricultural systems. In Lin Compton (Ed.), The transformation of international agricultural research and development* (Lynne Rienner Publishers 1989).
[21] Arun Agrawal, 'Dismantling the divide between Indigenous and scientific knowledge' (1995) 26 Development and Change 413. see also Ryan Brook and Stephane McLachlan, 'Trends and prospects for local knowledge in ecological and conservation research and monitoring; (2008) 17 Biodiversity and Conservation 3501.
[22] Dale Jamieson, 'Ethics, public policy, and global warming' (1992) 17(2) Science, Technology, & Human Values 139.
[23] The Environmental Protection Agency's draft report Policy Options for Stabilizing Global Climate, which was concerned with safeguarding against dire environmental impacts. Its failure however, strengthened the idea of resorting to old practices in agriculture and environmental preservation. This followed the criticism of the policy for only covering economic risks of climate change in one chapter, which was regarded as insufficient. See (n 22 above) 143.

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suggested that old practices may best address agricultural and environmental issues, which UN agencies do not accept.[24]

The World Commission on Environment and Development convened a meeting in the 1980s, where it was agreed that sustainable development could be achieved by including indigenous communities/people in managing indigenous resources, ranging from land and forests to water.[25] Their economic and political experience was acknowledged; hence, their rights should be protected and considered in policymaking.[26]

Accordingly, article 11(1) of the United Nations Declaration on the Rights of Indigenous People states that indigenous people have the right to practise and restore their culture and traditions.[27] These rights arguably entitle them to maintain, safeguard, and develop their indigenous knowledge that has existed over the years, currently exists, and possibly would be created. Their indigenous knowledge in this context is closely related to artefacts, which can be found in archaeological and historical sites, artistic materials, literature, and ceremonies.[28] This provision further requires states to implement measures that would redress the injustice that indigenous people have suffered in the past, and the mechanisms may include restitution. Given that it is provided that such must be done in consultation with the indigenous people, it shows the effort the UN has made to recognise the need for inclusivity in decision-making on aspects affecting indigenous people.[29] Article 11 also addresses the need to redress the IP regime to prevent free and unconsented appropriation of indigenous knowledge.[30]

One of the most critical provisions in the United Nations Declaration on the Rights of Indigenous People is article 24, which provides the right to access indigenous-based

[24] United Nations Environment Programme; United Nations Development Programme; and United Nations University-Institute for the Advanced Study of Sustainability.
[25] World Commission on Environment and Development, (1987) 12.
[26] *Ibid.* See also agenda 21, and the Convention on Biological Diversity, 19932. Chapter 26 provided for the inclusion of indigenous communities in the policy making processes and management of resources which had the potential to boost sustainable development. The CBD in article 8(j) acknowledged the need to consider indigenous practices towards development of respective communities. They would also share the benefits of the use of their indigenous knowledge.
[27] Article 11(1) of the United Declaration on the Rights of Indigenous People <UNDRIP_E_web.pdf> accessed 03 September 2023.
[28] Article 11(1) of the UN Declaration on the Rights of Indigenous People.
[29] Article 11(2) of the UN Declaration on the Rights of Indigenous People
[30] *Ibid.*

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medicinal resources to maintain health.[31] This is a vital provision for indigenous people, as much of their indigenous knowledge revolves around indigenous medicinal plants.[32] The Declaration entitles them to preserve the plants, animals, and minerals vital for survival.[33] This right stems from the right to access quality health services like everybody else, and, as a result, states must ensure that measures are taken to realise this right.[34] Arguably, ensuring that a legal framework promoting this protection exists and is enforceable is one of the measures this provision refers to.

Furthermore, article 31 provides that under the control of their cultural practices, indigenous people are entitled to the manifestations of their technological and scientific articles.[35] They may develop knowledge-based resources through intellectual property, and states must ensure this right is realised.[36] It is argued that this provision justifies safeguarding indigenous knowledge, affording indigenous communities the freedom to determine how such knowledge is used. This ensures that indigenous people benefit from the exploitation of their knowledge by third parties.

The above recognition of the right by the UN underscores the importance of knowledge and respect for indigenous communities and the knowledge itself. However, there were and still are scholars opposed to using indigenous knowledge to address environmental and agricultural challenges; they argue that it is not as effective as it is said to be.[37] They also argue that the use of indigenous knowledge needs to be tested

[31] Article 24(1) of the UN Declaration on the Rights of Indigenous People
[32] See Marlise Richter, 'Traditional Medicines and Traditional Healers in South Africa," (2003) Conference paper at the Treatment Action Campaign and AIDS Law Project' 7. See also Samuel Adu-Gyamfi, 'Ancient Egyptian Medicine: A Systematic Review' (2015) 2 Philosophy, Social and Human Disciplines 11. Dahlberg explored the use of indigenous knowledge-based natural resources for medicinal purposes in the Kwazulu-Natal province and noted prevalence use of plants to cure flue, and headaches to list the few. See Annika Dahlberg and Sophie Trygger, 'Indigenous Medicine and Primary Healthcare: The Importance of Lay Knowledge and the Use of Medicinal Plants in Rural South Africa' (2009) 37(1) Human Ecology 89.
[33] n 31 above.
[34] See Article 24(2) of the UN Declaration on the Rights of Indigenous People.
[35] Article 31(1) of the UN Declaration on the Rights of Indigenous People.
[36] Article 31(2) of the UN Declaration on the Rights of Indigenous People.
[37] See Erin Bohensky and Yiheyis Maru, 'Indigenous knowledge, science, and resilience: What have we learned from a decade of international literature on 'integration'?' (2011) 16(4) Ecology and Society 1 <Indigenous Knowledge, Science, and Resilience What Have We Learned from a Decade of International Literature on "Integration"? on JSTOR> accessed 03 September 2023.

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and clarified.[38] Castillo claims that the indigenous knowledge discourse remains an academic exercise that requires more practicality.[39]

Although organisations such as WIPO have a working definition, as pointed out above, there is still a need to advance the conceptualisation of indigenous knowledge that supports its protection in international trade, especially under the AfCFTA Agreement. This approach will benefit the intellectual property aspect of trade and protect indigenous knowledge's economic and trade elements for policy formulation to ensure adequate protection in the AfCFTA. To do this, however, reflecting more deeply on the challenges in defining indigenous knowledge is essential.

A major challenge in defining this knowledge stems from different perceptions of its definition – where it is sometimes described as traditional and indigenous.[40] Using these terms interchangeably to mean one Or the other or as distinct concepts also contributes to confusion about their true meaning.[41] The definitional challenge is also attributed to the diverse nature of this knowledge.[42] Developing one concept and conceptual meaning to avoid similar definitional challenges in the future is essential.

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[38] Erin Bohensky and Yiheyis Maru, 'Indigenous knowledge, science, and resilience: What have we learned from a decade of international literature on 'integration'?' 4.

[39] Ameyali Ramos Castillo, 'The whizz of electrons and the wisdom of elders: linking traditional knowledge and western science. Traditional Knowledge' (2009) <Guest article: Linking TK and Western science | Traditional Knowledge Bulletin (wordpress.com)> accessed 03 September 2023.

[40] See Louise Grenier, Working with Indigenous Knowledge: A Guide for Researchers (International Development Research Centre 1989) <pdf2xml (idrc-crdi.ca)> accessed 05 September 2023, where the terms were synonymously used to define this knowledge, to mean traditional or indigenous knowledge that exists and is developed under certain conditions by people indigenous to a particular area, especially rural areas.

[41] See Paul Faustin Kihwelo, 'Indigenous knowledge: what is it? How and why do we protect it? The case of Tanzania' (2005) 8(3) The Journal of World Intellectual Property 345. He regards indigenous knowledge as part of traditional knowledge, but traditional knowledge as not necessarily indigenous knowledge. This argument is based on the definition by the CBD regarding traditional knowledge as knowledge, innovations and the practices of indigenous people, and the 1993 definitions by WIPO, that traditional knowledge is an artistic work, literary, discoveries, inventions and performance, undisclosed information, which results from the intellect of people generally, while indigenous knowledge is such above subcategories, being an intellect results of indigenous people. See also See Omwoyo Bosire Onyancha, 'Indigenous knowledge, traditional knowledge and local knowledge: what is the difference? An informetrics perspective' (2022) Global Knowledge, Memory and Communication <https://www.emerald.com/insight/2514-9342.htm> accessed 05 September 2023. Warren has attributed this varied use of the concepts to refer to the development aspect of the knowledge, that if it is developed by indigenous people, it becomes indigenous knowledge and when such knowledge is developed by governmental institutions, universities, research institutions and industries to name a few, it becomes traditional knowledge. See Warren Michael, 'Unauthored contribution attributed to Warren' (1992) 6(3) Indigenous Knowledge and Development Monitor 13.

[42] Omwoyo Bosire Onyancha *et al*, 'Towards a uniform terminology for indigenous knowledge concepts: informetrics perspectives' (2018) 28(2) African Journal of Libraries, Archives and Information Science 155.

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The concept of "traditional" knowledge is sometimes attributed to ancient knowledge with an unchanging nature.[43] This is different from the working definition, mainly based on the static and antiquity of the knowledge. Traditional knowledge is regarded as something that differs from the modern science of doing things.[44] Indigenous knowledge, on the other side, evolves according to the needs of the people. Indigenous knowledge may still be used with modern science and retain its indigenous character. For example, developing specific indigenous natural resources into medicine involves modern technology but relies on indigenous knowledge.[45]

Treating traditional knowledge as an umbrella concept means that indigenous knowledge has different branches. Some form part of a tradition, while others do not.[46] Therefore, this knowledge is vast and unique,[47] This, by definition, also resembles what this study regards as indigenous knowledge. However, Battiste and Henderson believe that the word "traditional" in traditional knowledge does not necessarily mean that a knowledge system derives from ancient practices.[48] Additionally, McGregor has argued that indigenous and non-indigenous perspectives form part of traditional knowledge as a cumulative and holistic system.[49]

In furthering the argument on definitional challenges to indigenous knowledge, some anthropological experts on cultural studies argue that the "traditional knowledge" concept is no longer used or is somewhat relevant and that the indigenous knowledge concept should be used.[50] Dutfield, however, disagrees and argues that traditional knowledge is not old knowledge but rather knowledge of indigenous people/communities that is passed from generation to generation and is constantly changing depending on the experiences of indigenous communities and other external

[43] Anwar Osman, 'Indigenous Knowledge in Africa: Challenges and Opportunities' (2009) An Inaugural lecture <Microsoft Word - Osman lesing_Nov 2009.doc (ufs.ac.za)> accessed 06 September 2023.
[44] *Ibid*.
[45] The use of the hoodia plant for medicinal purposes.
[46] Anwar Osman, 'Indigenous Knowledge in Africa: Challenges and Opportunities' 9.
[47] Michael Davis, 'Indigenous rights in traditional knowledge and biological diversity: Approaches to protection' (1999) 4(4) Australian Indigenous Law Reporter 1.
[48] Marie Battiste and Youngblood Henderson, *Protecting indigenous knowledge and heritage. A global challenge* (Saskatoon 2012).
[49] Deborah McGregor, 'Traditional knowledge and water governance: The ethic of responsibility' (2014) 10(5) AlterNative: International Journal of Indigenous Peoples 493. See also Deborah McGregor, 'Coming full circle: Indigenous, Environment, and our future' (2004) 28(3-4) American Indian Quarterly 385.
[50] In that it no longer corresponds with the knowledge the current people hold.

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issues, for example, globalisation.[51] On the other hand, Janke and Sentina argue that traditional knowledge is a component of indigenous.[52]

While indigenous knowledge is perceived as knowledge that is held and practised by people who identify themselves as indigenous, with a common origin of places with distinctive cultures, and about a newly arrived population,[53] traditional knowledge, conversely, is perceived as knowledge acquired by members of distinct cultures through inquiry into such pre-existing cultural practices.[54]

This study acknowledges that despite the above contrasting perspectives on what constitutes traditional and indigenous knowledge, the definitional elements represent what this study terms “indigenous knowledge”. As a result, the study continues to use the concept of indigenous knowledge, also called traditional knowledge.

Indigenous knowledge is unique to each particular society and forms part of decision-making and a way of doing things in vast areas of practice. It is said to be indigenous because of its inexorable link with local or indigenous communities or people.[55] This knowledge exists in the cultural society at a given time. Nonetheless, the distinct character of indigenous knowledge also contributes to its divergent conceptualisation among scholars.

Gawora defines indigenous knowledge as the knowledge of indigenous people based on their experience of the indigenous people.[56] Mundy defines indigenous knowledge similarly, stating that years of experience in applying specific knowledge by a local community qualify as being regarded as indigenous knowledge. In as much as Gawora

[51] Graham Dutfield, ‘TRIPS-Related Aspects of Traditional Knowledge’ (2001) 33 Journal of International Law 3330.
[52] Terri Janke and Maiko Sentina, ‘Indigenous knowledge: issues for protection and management’ (2018) Discussion paper commissioned by IP Australia and the Department of industry, innovation and science <www.ipaustralia.gov.au/sites/files/ipaust_ikdiscussionpaper_28march2018.pdf> accessed 07 October 2023.
[53] United Nations Environment Program, ‘Second international indigenous forum on biodiversity’ (1997) UNEP/CBD/TKBD/1/3 Annex 1.
[54] *Ibid*.
[55] If a certain aspect of knowledge was to be mentioned to a stranger, that person should be able to think or link such knowledge with a certain community. Take the medicinal use of rooibos knowledge as an example, a stranger hearing about it should be able to associate it with the South Western part of South Africa.
[56] That it is indigenous if it has passed the validation test through being experienced by local people. See Dieter Gawora, ‘Indigenous knowledge in Amazonia- Opportunity or danger’ (1994) 13(3) Matlhasedi 7-9.

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acknowledges the experience of indigenous people in determining the indigenous nature of knowledge, the period thereof plays a limited role in deciding whether a particular knowledge aspect can be regarded as indigenous or not. This knowledge is subject to change to suit the current and evolving needs of indigenous communities/people.[57]

Conversely, Okediji views indigenous knowledge in its relationship with the concept of the public domain.[58] She argues that indigenous knowledge is a collection of principles and rules governing how certain groups are developed and about ideas' cultivation, implementation, and sustenance. This knowledge evolves in response to external forces.[59] She argues against treating indigenous knowledge as a public domain since it has negative implications for indigenous communities.[60] If knowledge is treated as something that belongs to the public, then the indigenous community would not be able to use this knowledge for trade. This is because everyone would be able to access the knowledge freely. Therefore, treating indigenous knowledge as public property aligns differently with the economic development objectives of the AfCFTA Agreement.

Indigenous African knowledge is transmitted orally and allows individuals to modify it according to their experiences.[61] What makes knowledge indigenous is how it is acquired, practised, and transmitted across generations.[62] Among other knowledge systems that form part of indigenous Africa, some wisdom or ability exists in African communities, enabling indigenous medical practitioners to identify biological resources of a medicinal nature and artists to create artistic artefacts. This type of knowledge has spread broadly across generations. The richness of Africa, with this

[57] Paul Mundy, *Recording and using indigenous knowledge: A manual International Institute of Rural Construction* (Puct Publications 1999).
[58] Ruth Okediji, 'Traditional knowledge and the public domain' (2018) 176 Centre for International Governance Innovation Paper 1.
[59] Ruth Okediji, 'Traditional knowledge and the public domain' 2.
[60] That indigenous communities may not benefit from this knowledge if it is treated as something that belongs to everyone and freely accessible. See n 61 above
[61] George Albers-Schdnberg, 'The pharmaceutical discovery process' in Timothy Swanson (ed), Intellectual property rights and biodiversity conservation: an analysis of the values of medicinal plants (Cambridge University Press 1995).
[62] Russel Lawrence Barsh, 'Indigenous knowledge in biodiversity' in Darrel Addison Posey (ed), *Cultural, and spiritual values of biodiversity* (Martyn Bramwell 1993).

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knowledge of economic value and the IPR regime, is arguably why the pharmaceutical industry is booming.[63]

Cultural beliefs and superstitions are generally the primary basis for African indigenous knowledge of biological resources. Africans have used this knowledge to develop food and medicine knowledge pools. Although there is a change in how things are done, sustainable development in these areas of expertise is always ensured.[64] The knowledge is collectively memorised, informed by practices, customs, stories, and proverbs, and is somewhat systematic.

In the context of South Africa, section 1 of the Indigenous Knowledge Systems Act provides that indigenous knowledge means "knowledge which has been developed within an indigenous community and has been assimilated into the cultural and social identity of that community, and includes— (a) knowledge of a functional nature; (b) knowledge of natural resources; and (c) indigenous cultural expressions".[65] This definition depicts indigenous knowledge as a broad concept covering various aspects of indigenous communities, including the doing, use, and expressions. From this, it can be denoted that indigenous knowledge covers artistic materials, natural resources, and performance. Safeguarding this knowledge through the AfCFTA Agreement means that the doing, use and performance can be executed in exchange or where payment is made. This definition depicts the approach taken by this study.

Furthermore, regulation 1 of the Biodiversity Access and Benefit Sharing Regulation describes indigenous knowledge as a customary knowledge use of genetic resources by such indigenous communities while adhering to norms and standards of a particular indigenous community or an individual, which in certain instances may be unwritten.[66]

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[63] An increased use of natural resources to create bio molecules, and medicines for different conditions, then sell them as their own inventions, while in actual fact, they extracted the knowledge about such resources use from indigenous people/ communities. See Fabian Simasiku Kapepiso *et al*, 'Tracing the curation of indigenous knowledge in a biopiracy case' (2020) 16(1) International Journal of Indigenous People. See David Conforto, 'Traditional and modern-day biopiracy: Redefining the biopiracy debate' (2004) 19 Journal of Environmental Law and Litigation 396. See also Chris Hamilton, Biodiversity, biopiracy and benefits: what allegations of biopiracy tell us about intellectual property (2006) 6(3) Developing World Bioethics 158.

[64] Mainly biomedical knowledge. See Kent Nnadozie *et al*, 'Traditional African concepts of access and benefit sharing' in Kent Nnadozie *et al* (eds), *African perspectives on genetic resources: A handbook on laws, policies, and institutions governing access and benefit sharing* (Environmental Law Institute 2003).

[65] 6 of 2019.

[66] *Ibid*.

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This knowledge may also include discoveries about genetic resources in such communities.[67] Indigenous communities use this knowledge to survive. This involves the development of medicines, agricultural techniques to increase productivity, and other methods of teaching that transform the academic field. Later, this yield results as the educated people make informed decisions about the sustainable development of their respective communities.

Part II of the African Model Legislation for the Protection of the Rights of Local Communities, Farmers and Breeders, and for the Regulation of Access to Biological Resources defines indigenous knowledge as knowledge that has been accumulated by the indigenous people and which is used to develop mechanisms for conservation and sustainable use of natural resources that have formed part of the indigenous community's daily lives.[68] It further acknowledges or emphasises safeguarding this knowledge, which is very viable for the economic development of indigenous communities.[69]

One of the most important provisions of the Model Legislation is recognising indigenous communities' right to intellectual rights embedded in innovations.[70] Indigenous knowledge falls under the intellectual rights category as a tool for innovation. In answering whether trade agreements are appropriate to safeguard indigenous knowledge in the next chapter, this assertion is one of the bases for treating indigenous knowledge as an IPR.

The Africa Regional Intellectual Property Organisation (ARIPO) defines indigenous knowledge as the practices and skills developed and retained from generation to generation in a particular community, where such practices and abilities are attached to that indigenous community's cultural and spiritual identity. Indigenous knowledge

[67] See Ilyclaire Bellamy, 'Chair's Text of a Draft International Legal Instrument relating to Intellectual Property and Traditional Knowledge/Traditional Cultural Expressions' (2023) <wipo_grtkf_ic_46_chairs_text.pdf> accessed 05 September 2023. See also Wayne McCook, 'Traditional Knowledge and Traditional Cultural Expressions: Certain suggested cross-cutting issues' (2014) 1-14, Non-pape <https://www.wipo.int/edocs/mdocs/tk/en/wipo_grtkf_ic_28/wipo_grtkf_ic_28_ref_tk_tces_and_grs_certain_suggested_cross_cutting_issues.docx> accessed 23 September 2023.

[68] African Model Legislation for the Protection of the Rights of Local Communities, Farmers and Breeders, and for the Regulation of Access to Biological Resources, 2000 (The Model Law)

[69] *Ibid*. Part I defines biological resource as resources of biological nature, including organisms or parts thereof, components of an ecosystem, which can be used for the benefit of mankind.

[70] Article 1 of the Model Law.

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is, therefore, built on practical knowledge beyond the artistic, spiritual and ritualistic realms.[71] The definition by the ARIPO reveals that the indigenous concept goes beyond its literal and ordinary meaning and requires an exploration of different knowledge systems. In safeguarding the knowledge, the AU and member states of the AfCFTA Agreement must be able to identify and determine where the rules this study seeks to develop will be applied. Mechanisms for safeguarding a physical article may differ from those for safeguarding intellectual articles.

Section 2 of the Swakopmund Protocol on the Protection of Traditional Knowledge and Expressions of Folklore (Swakopmund Protocol) defines indigenous knowledge as knowledge that originates from an indigenous community and is a work of intellect responding to indigenous settings. This knowledge enables the indigenous people to innovate, learn and practise according to the norms and standards of a particular culture.[72] Therefore, the conceptualisation of indigenous knowledge in the trade context requires exploration of the customs that apply to indigenous modes of commerce. For this reason, the current study examines the experience of indigenous communities.

This knowledge is codified through different systems and is passed from generation to generation. It is provided that this concept is broad in that it includes various fields, including but not limited to agriculture, medicine, environmental management, and genetics.[73] This knowledge may be used in commercial agreements as a commodity and guide for commercial agreement conclusions.

From the above discussion, it is clear that there needs to be more clarity on how this knowledge should be termed. While scholars, treaties, and organisations have attempted to define it, it is sometimes referred to as “indigenous knowledge” or “traditional knowledge”, which are used interchangeably. This study also adopts the concept of indigenous knowledge to mean what may be termed traditional or local knowledge. It is knowledge or an intellectual work of people belonging to a specific local indigenous community, enabling them to perform certain tasks. These tasks

[71] ARIPO, ‘Traditional knowledge’ (2023) <https://www.aripo.org/ip-services/traditional-knowledge> accessed 08 October 2023.
[72] Section 2 of the Swakopmund Protocol on the Protection of Traditional Knowledge and Expressions of Folklore.
[73] *Ibid*.

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include but are not limited to the agricultural, artistic, medicinal, educational and commercial fields, and the knowledge is passed from generation to generation.

Furthermore, it is acknowledged that this knowledge is also subject to change depending on various factors experienced in the daily lives of the indigenous people in their indigenous communities. While indigenous knowledge has been broadly contextualised in areas like medicine and agriculture, commercialising the understanding is a new concept, especially with the introduction of the AfCFTA Agreement. Because this study explores the propriety of safeguarding indigenous knowledge through trade agreements such as the AfCFTA Agreement for commercial purposes, it is essential to conceptualise it in the context of commerce/trade.

2.3. The conceptualisation of indigenous knowledge in the context of trade

2.3.1. Introduction

Indigenous knowledge has long been treated as an invaluable commodity by the global market and its proponents. In the context of trade, using indigenous knowledge presents a relationship with both opportunities and challenges.[74] This section focuses on indigenous knowledge in the trade context by detailing what it means and the opportunities it presents for the trade industry. Indigenous knowledge, as a repository of information, is mainly evident in medicinal production, educational techniques, agricultural methods, design, and storytelling aspects of art.[75] Found in these practices are accumulated ideas and innovation techniques. This knowledge has sustained indigenous communities for many years, enabling a harmonious life and developing solutions that fit their everyday needs and wants.

As the world becomes interconnected through various aspects, including trade, debates on the value of indigenous knowledge in trade have occurred worldwide. This has arguably led to the recognising of the cultures behind this indigenous knowledge system. This is because one can only discuss a particular aspect of indigenous

[74] Chapter three of the study delves much into the opportunities and challenges for safeguarding indigenous knowledge within the context of trade, in order to identify whether free trade agreements are appropriate to safeguard indigenous knowledge.
[75] Graham Dutfield, 'Harnessing traditional knowledge and genetic resources for local development and trade' (2005) International Seminar on Intellectual Property and Development 1.

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knowledge by mentioning its origin in terms of region, culture, and other geographical indications. The potential of this knowledge has geared up the pharmaceutical and agricultural industries.[76] Therefore, indigenous knowledge can be used to resolve world challenges while offering economic development to indigenous communities.

Although the economic viability of indigenous knowledge is undisputed, there is an argument against treating this knowledge as a tradeable commodity.[77] Arguments for and against using indigenous knowledge as a commodity require exploration to understand which knowledge should be safeguarded in the context of trade, particularly the AfCFTA Agreement. The above assertion, therefore, requires a discussion of indigenous knowledge as a commodity of trade. To achieve that, the following section explores various theoretical perspectives on the commodification of knowledge.

2.3.2. The commodification of knowledge

2.3.2.1. A background

The growing debate on commercialising indigenous knowledge has strengthened discussions on the commodification of knowledge. From a historical to a contemporary perspective, the commodification of knowledge represents society's understanding of the nature of knowledge. To contextualise and conceptualise indigenous knowledge in trade, this study explores the historical background to the concept, as outlined by Karl Marx, and then the evolved theories that address the complex phenomenon of knowledge commodification.

The justification for relying on the Marxist theoretical perspectives for this discussion is the rich and comprehensive contribution of Karl Marx to the conceptualisation of knowledge.[78] He achieved this by critiquing the concept of capitalism, which gained

[76] In medicine and molecule developments, agricultural techniques such as crop rotation, irrigation techniques etc.
[77] The World Bank Indigenous Notes 53 (2003), notes that indigenous knowledge is a low value commodity, static and a primitive art. Indigenous knowledge was also regarded as irrational, mystery and miraculous, and as such, it cannot be regarded as a trade commodity.
[78] See David-Hillel Ruben, *Marxism and materialism: A study in Marxist theory of knowledge* (The Harvester Press 1979) 1-222. See also B Roberts, 'Marx after Steedman, Separating Marxism from Surplus Theory' (1987) 32 Capital and Class 84.

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momentum in the 19th century through the value theory.[79] The contemporary era is characterised by globalisation and technology, resulting in changed knowledge production, sharing, and use. The discussion on knowledge commodification has now shifted to cover issues including intellectual property, digitisation, economics, capitalism, and democracy.[80]

As a result, in answering whether knowledge and, specifically, indigenous knowledge can be a trade commodity, the concerns of the society at large must be considered. This section considers the historical perceptions of knowledge commodification in terms of Marx's theoretical lenses and mentions contemporary views on whether knowledge can be treated as a commodity.

2.3.2.2. The Marxist theory of value and the commodification of knowledge

Karl Marx argued that labour is the measure of value put on an article. However, he further claimed that growing technology would decrease the value of articles as there would be less labour input by human beings into developing such articles.[81] This assertion by Karl became the basis on which the immaterial labour theory came into existence. An argument supporting this is that intellectual work, in general, is produced during non-labour time.[82] Arguably, this argument depicts the transition from an industry-based economy to a service-based one.[83] Indigenous knowledge falls under

[79] Arguing that capitalism led to the exploitation of labour and intellectual resources at the expense of those who put effort in the principal work. See Anthony Imoisi Ilegbinosa, 'An Analysis of Karl Marx's Theory of Value on the Contemporary Capitalist Economy' (2012) 3(5) Journal of Economics and Sustainable Development 1. This resonates with the exploitation of indigenous knowledge by the West and Europe, while the indigenous communities continued to suffer. The biopiracy theory as will be explained in the subsequent topics will delve much into this issue.
[80] See Ghirmai Kefela, 'Knowledge-based economy and the society has become a vital commodity to countries' (2010) 5(7) International NGO Journal 160. See also Ayanda Priscilla Sikobi, 'The impact of international trade of commodities on the economic growth of South Africa' (MSc Maritime Affairs mini dissertation, World Maritime University 2021).
[81]Karl Marx (1858) 1973:705-706.
[82] See André Gorz, *The Immaterial* (University of Chicago Press 2003) and André Gorz, *The Immaterial* (University of Chicago Press 2010); See also Antonio Negri, *Marx Beyond Marx: Lessons on the 'Grundrisse'* (Autonomedia 1991); See further Michael Hardt, *et al*, *Multitude: War and Democracy in the Age of Empire* (The Penguin Press 2004).
[83] Service-based economy is based on the provision of services to the customers directly, and this may include information technology, data privacy, and advisory to name a few. See Ian Miles, 'Services and the Knowledge-Based Economy' in Joe Tidd and Frank Hull, Service Innovation: Organizational Responses to Technological Opportunities & Market Imperatives (Imperial College Press 2003) 1. In the context of indigenous knowledge, the knowledge as an intellectual work is offered as what the IP regime would describe as copyright, patents, trademarks and geographical indications.

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industry- and service-based economies. Therefore, an argument premised on the Marxist theory will be approached from both perspectives.

Lazzarato argues that immaterial labour produces immaterial articles such as knowledge, ideas, and information.[84] How these articles are produced, therefore, requires transformed labour. The distinction between the end product of labour and non-labour articles lies in the quantity and quality, with the former focused on quantity and the latter focused on quality.[85] In terms of the cognitive capitalism theory by Gortz, the current production is concerned with a more complex capital that cannot be measured, as compared to the traditional way of doing things where production was limited to tangible articles.[86]

From the above discussion, it is clear, as this study concedes, that labour time can no longer be used to measure the value of an article. The scholars above validly argue that immaterial labour creates immaterial commodities whose value cannot be attributed to the time taken to produce them. It is argued that globalisation has seen many industries increase their industry-based article production.[87] That does not, however, justify why knowledge cannot be regarded as a commodity. This is because knowledge serves as the basis for the production in these industries.[88]

The cognitive economy/capitalism's effects invalidate Marx's value theory. The impact of this is that the value of articles depends on monopoly rights.[89] The economic value of indigenous knowledge, therefore, would be boosted by establishing a monopoly over the knowledge. This can be achieved by establishing the protection of the knowledge.

The following section explores the commodification of knowledge in the contemporary era. It shapes the discussion about answering the propriety of safeguarding indigenous knowledge in the context of trade, in particular the AfCFTA Agreement,

[84] Lazzarato Maurizio, 'Immaterial Labor' in Paolo Virno and Michael Hardt (eds), *Radical Thought In Italy: A Potential Politics* (University Of Minnesota Press 2006).
[85] *Ibid*.
[86] See André Gorz, *The Immaterial* (University of Chicago Press 2003) and André Gorz, *The Immaterial* (University of Chicago Press 2010).
[87] See Eleutério Prado, *Desmedida do Valor: Crítica da Pós-Grande Indústria* (Xamã 2005).
[88] *Ibid*.
[89] Monopoly rights are those rights that only allows the inventor to benefit from such rights. IPRs such as patents and copyrights are examples.

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where articles based on indigenous knowledge and the knowledge itself are to be traded.

2.3.2.3. A contemporary perspective on knowledge commodification

A current perspective on the value of knowledge is usually through the reproduction cost approach and the average cost approach. The reproduction cost approach posits that knowledge per se has no value and therefore cannot be modified.[90] Value is only attached to the rents upon which the knowledge rests.[91] In simple terms and in the context of indigenous knowledge, value is connected to the physical artefacts developed through indigenous knowledge. For example, a pill developed through indigenous knowledge would hold more value than the knowledge used to create that pill.

On the contrary, the average cost approach posits that the research and development of specific knowledge determines the value of such knowledge or an article produced through such knowledge.[92] Foley submits, however, that even in the existence of an argument that this knowledge is valueless, it becomes valuable when it is safeguarded as a monopoly right such as IPR.[93] This paves the way for a justification of why indigenous knowledge as a commodity should be safeguarded through IP regimes in trade agreements. This is because, in terms of this theory, indigenous knowledge can be commodified only when it has been protected as an exclusive right. This may be achieved through revised and amended IPR such as patents, geographical indications, and copyrights, where one would argue that they are *sui generis* rights.

Foley argues further that these immaterial labour-based articles do not involve the physical exploitation of labourers, which does not mean that they cannot be a capital commodity.[94] Indigenous knowledge as a service commodity does not require the physical exploitation of labour but still deserves adequate protection as a tradeable knowledge system. Although no actual work may have been put in, intellectual

[90] Tomás Rotta and Rodrigo Teixeira, 'The Commodification of Knowledge and Information' (2018) 60 Greenwich Political Economy Research Centre 1.
[91] *Ibid*.
[92] Tomás Rotta and Rodrigo Teixeira, 'The Commodification of Knowledge and Information'13.
[93] Duncan Foley, 'Rethinking Financial Capitalism and the Information Economy' (2013) 45(3) Review of Radical Political Economics 257.
[94] *Ibid*.

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property aids physically and traditionally in producing an article, which justifies the commodification of knowledge.

While scholars such as Rotta and Foley support the approach of knowledge commodification through the Marxist perspective, contrary to the immaterial labour theory, this study adopts both methods. But this is only in as far as the Marxist perspective supports that time spent on producing an article determines the value, and only in respect of physical artefacts developed from indigenous knowledge. In contrast, the immaterial labour theory is adopted for immaterial knowledge. The latter is the case since intellectual property is a work of mind where no measurement can be imposed. As a result, indigenous knowledge is a commodifiable article with economic value.

The following section discusses indigenous knowledge as a valuable commodity in trade. Therefore, it shapes the conceptualisation of 'indigenous' in the context of 'trade'. This will answer the research question on the meaning of knowledge in commerce and whether trade agreements can adequately ensure its protection.

2.3.3. Indigenous knowledge and trade: A conceptual analysis

In a globalised and interconnected world, where scholarship is starting to recognise the importance of indigenous knowledge, it is essential to explore how it would affect different fields. It serves as a theoretical and academic inquiry and has implications for the stakeholders involved in international trade, sustainable development, and the indigenous communities. This section considers the relationship between indigenous knowledge and trade by defining indigenous knowledge and, later, throughout the chapter, explores some real-life examples of how and where indigenous knowledge has been used as an economic factor. Later in the chapter, the sustainability of this knowledge is considered to outline the link between indigenous knowledge and the trade industry.

In conceptualising indigenous knowledge, McCook notes that safeguarding exclusive rights should be done in consideration of the public at large and that this would foster creativity and innovation.[95] In the context of trade, this would mean that whatever way

[95] Wayne McCook, 'Traditional Knowledge and Traditional Cultural Expressions: Certain suggested cross-cutting issues' (2014) <

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indigenous knowledge is being used to boost trade, the interests of the public should be promoted.

McCook further suggests that situating indigenous knowledge in the context of trade should focus on public concerns and preventing misuse and biopiracy.[96] Provision of rights and enforcement are different things, with the former focusing on the mere substantive guarantee of a right and the latter focusing on implementing that right. The same applies to indigenous knowledge as a property or cultural right; measures must be implemented to ensure the right is not violated. Ensuring that biopiracy does not continue, therefore, means that this knowledge should be safeguarded.

Currently, the IP Protocol to the AfCFTA Agreement, as a work in progress towards safeguarding indigenous knowledge, needs further intervention; therefore, advanced and adequate mechanisms are developed to ensure the complete protection of indigenous knowledge. As a result, this study's objective to develop protective mechanisms for indigenous knowledge in the context of the AfCFTA Agreement resonates with the above submission by McCook.[97] The guidelines to be developed in this study will ensure no further misuse of indigenous knowledge, which this study has termed biopiracy.

Indigenous knowledge also involves tangible and intangible materials.[98] This raises the question of "what exactly is traded in the context of indigenous knowledge?". Indigenous knowledge as a commodity for trade includes physical articles that have been developed by relying on the skills and practices of indigenous knowledge[99] and the knowledge itself as an intellectual outcome, as it comprehensively explains what some of these articles are and their use.

https://www.wipo.int/edocs/mdocs/tk/en/wipo_grtkf_ic_28/wipo_grtkf_ic_28_ref_tk_tces_and_grs_certain_suggested_cross_cutting_issues.docx > accessed 11 October 2023.

[96] *Ibid*.

[97] n 95 above.

[98] *Ibid*.

[99] Consider grinded roots that can be used for a certain medicinal reason. That article can be regarded as a commodity for trade and be sold. The knowledge on how to develop such a medicinal article can also be protected and be sold, just like recipes are sold as an IPR. Indigenous knowledge is in the form of services and goods, where services be protected as intellectual property, and owners thereof benefit from such exclusive protection. In respect indigenous as goods, it is the protection of articles that have been developed from indigenous knowledge, such as biological resources, artistic artefacts and crafts.

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Trade generally offers two types of opportunities. First, it benefits a group by creating independence and wealth. But, at the same time, it may create an opportunity for exploitation by outsiders.[100] As with the biopiracy theory outlined below, outsiders, mostly Westerners and Europeans, have mastered the art of exploiting African indigenous communities of their valuable indigenous knowledge-based resources. Therefore, trading in indigenous knowledge about specific processes and resources based on such knowledge presents two possibilities: the benefits and the risks of exploitation.

Dutfield further conceptualises indigenous knowledge in the trade context by outlining that trading in indigenous knowledge includes the community intending to sell resources, locally manufactured goods, and artwork.[101] Alternatively, they may negotiate with those interested in their knowledge to use the community's knowledge, resources, and artistic crafts.[102] He argues that trading in this indigenous knowledge depends not only on the legal rights over such expertise but also on the ability of such indigenous communities to advocate for their enforcement, as well as community capacity-building, which raises awareness of different knowledge-based aspects and marketing strategies.[103]

Varadarajant also notes that indigenous knowledge that is used to lead the development of medicines, agricultural methods, and other development purposes may be protected to benefit indigenous communities economically.[104] The fact that this knowledge serves as a channel or basis for the development of various natural resources and the creation of artistic goods and artefacts means that it is a treasure and should be safeguarded for trade purposes. Therefore, indigenous knowledge is closely linked to trade.[105]

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[100] Graham Dutfield, 'Harnessing traditional knowledge and genetic resources for local development and trade' 15.
[101] Graham Dutfield, 'Harnessing traditional knowledge and genetic resources for local development and trade' 16.
[102] *Ibid*.
[103] n 101 above.
[104] Protection laws should ensure that these indigenous communities are able to trade in knowledge without being exploited. See Deepa Varadarajant, 'A trade secret approach to protecting traditional knowledge' (2011)36(371) The Yale Journal of International Law 371.
[105] See Johana Gibson. 'Traditional knowledge and the international context for protection' (2004) 1 SCRIP-ed 48.

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While advancing the trade of indigenous knowledge, it is worth mentioning that not all indigenous knowledge is subject to trade.[106] Nabham *et al*. argued that trading indigenous knowledge emanating from spiritual forces is a sacred activity which should be avoided.[107] This calls for exploring the literature on which form of indigenous knowledge is tradeable and which is not. Therefore, it is essential to outline the nature of sacred indigenous knowledge and compare it with the standard indigenous knowledge this study has long introduced.

Sacred indigenous knowledge is intangible knowledge symbolising spiritual and religious practices and beliefs.[108] Knowledge is regarded as sacred not because of an individual perspective but rather because such knowledge's status is derived from the community's recognition.[109] Furthermore, sacred indigenous knowledge is defined based on its corporeality in that it cannot be touched like the knowledge stored in museums.[110] Lastly, it exists within indigenous communities, where it guides people on how to do certain things, acquaints them with the skills necessary to complete different tasks, and is passed from generation to generation.[111]

Therefore, there are four categories of indigenous knowledge: sacred and tangible indigenous knowledge, sacred intangible indigenous knowledge, secular tangible indigenous knowledge, and secular intangible indigenous knowledge. They are differentiated in terms of corporeality and the source.

Gervais notes that even with less economic viability, sacred indigenous knowledge may still be safeguarded as an IPR and commercialised.[112] McCook adds to this view by suggesting that exclusive economic rights should be created for the sacred and

[106] I.e. Spiritual knowledge. See Ayoyemi Lawal-Arowolo, 'Africa's traditional knowledge systems in global trade' 1.
[107] Gary Paul Nabham *et al*, 'Sharing the benefits of plant resources and indigenous scientific knowledge' in Stephen Brush and Doreen Stabinsky, Valuing local knowledge: Indigenous people and intellectual property rights (Island Press 1996).
[108] Daniel Gervais, 'Spiritual but not intellectual? The protection of sacred intangible traditional knowledge' (2003) 11 Cardozo Journal of International & Comparative Law 463.
[109] *Ibid*. Consider offerings which are used to send of a person who has passed on; things observed by indigenous people due to their medicinal viabilities; and their importance in the historical context. Some of these sacred articles are usually on displays in museums and archaeological sites.
[110]Daniel Gervais, 'Spiritual but not intellectual? The protection of sacred intangible traditional knowledge' 470-471.
[111] Daniel Gervais, 'Spiritual but not intellectual? The protection of sacred intangible traditional knowledge' 471.
[112] *Ibid*.

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secret indigenous knowledge of certain indigenous people or indigenous communities.[113] McCook furthermore suggests that a moral-based rights model should be used for an already disclosed secular form of indigenous knowledge.[114]

Therefore, the second category listed above allows the third parties to trade in the knowledge subject to consent from the originators. This is what McCook regards as a tiered approach to safeguarding indigenous knowledge. Therefore, the use of indigenous knowledge in trade, among other fields, is guided by indigenous people's relationships with that knowledge, the applicable rules, and the binding force for the principles thereof.[115]

Arguably, the second category of suggested rights protection resembles IP regime-based rights, where using another person's rights depends on obtaining consent. The first category also resembles the IP regime-based rights, except that the use thereof cannot be extended to third parties.

On the other hand, spiritual and religious knowledge is regarded as not viable for commercialisation based on secrecy. Taye argues that the use thereof will always require the invocation of spirits.[116] It is believed that traditional healers source instructions to cure diseases from their ancestors.[117] As there is no protection for these kinds of instructions, it is argued that commercialising the knowledge would not be a good idea, as some may misuse it.[118] This is not an argument against commercialising indigenous knowledge entirely but rather pending a framework safeguarding sacred indigenous knowledge.

Lawal-Arowolo argues that sacred indigenous knowledge should not be commercialised under any circumstance.[119] He argues that it is unethical to sell

[113] Wayne McCook, 'Traditional Knowledge and Traditional Cultural Expressions: Certain suggested cross-cutting issues' 8.
[114] *Ibid*.
[115] See Chidi Oguamanam, 'Tiered or Differentiated Approach to Traditional Knowledge and Traditional Cultural: Expressions. The Evolution of a Concept' (2018) 185 Centre for International Governance Innovation 1 <1-15 at 13-15. >https://www.cigionline.org/sites/default/files/documents/Paper%20no.185web_0.pdf< accessed 11 October 2023.> accessed 11 October 2023.
[116] Oyelakin Richard Taye, ''Yoruba traditional medicine and the challenge of integration' (2009) 3(3) The Journal of Pan African Studies 74.
[117] Ayoyemi Lawal-Arowolo, 'Africa's traditional knowledge systems in global trade' 1.
[118] *Ibid*. Besides, it would be a disrespect of the autonomy of the religious realm.
[119] Ayoyemi Lawal-Arowolo, 'Africa's traditional knowledge systems in global trade'4-6.

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spiritual articles. This is done while recognising that this knowledge may still have economic value.[120] Other than an ethical basis, indigenous norms have discouraged monetarily benefiting from sacred articles for years.[121]

In light of the above differences regarding which indigenous knowledge is tradeable, this study argues that it does not matter whether a particular knowledge aspect is sacred or not. As long as the person through whom such knowledge has been transmitted wants and consents, they may commercialise it. It recognises that something morally and ethically correct to one person may not be so for another person. Therefore, the fact that someone morally and ethically believes that commercialising indigenous knowledge is wrong does not make it entirely wrong. If knowledge has been revealed to only one person, then it may as well be regarded as a natural right that one has been granted by being who one is. As discussed below, the naturalist theory of IPR protection justifies this assertion.

Nabham *et al*. adequately conceptualise indigenous knowledge by holding that indigenous knowledge is exchanged while indigenous knowledge-based resources such as medicinal plants are extracted.[122] This, therefore, relates to whether an article is tangible or intangible.

Makhura argues that economies relying on indigenous knowledge are more likely to flourish than those that do not.[123] This is supported by the demise of a developing country's economy (including Africa) based on Western trading patterns.[124] It is based on the contention that relying on local knowledge and resources is a recipe for successful African trade. This is best explained by the economic development perspective, which categorises development into various stages. The first stage of economic growth requires primary sectors such as agriculture and mining. In this instance, indigenous knowledge finds an interplay, as it may have to be used to develop various agricultural and other effective mining strategies.

[120] Ayoyemi Lawal-Arowolo, 'Africa's traditional knowledge systems in global trade' 187.
[121] Thomas Greaves, 'Tribal tights' Stephen Brush and Doreen Stabinsky, *Valuing local knowledge: Indigenous people and intellectual property rights* (Island Press 1996).
[122] Ayoyemi Lawal-Arowolo, 'Africa's traditional knowledge systems in global trade'178.
[123] Moraka Makhura, 'Economic perspective to indigenous knowledge in rural development' 39.
[124] *Ibid*.

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To put indigenous knowledge in the trading market, first, there is a need to understand what form of indigenous knowledge best contributes to flourishing economies. Second, firms that would work hand in hand with local people need to be identified.[125] Third, there must be initiatives to encourage and promote innovation in indigenous communities.[126] This may be because of institutional establishments and legal frameworks. Finally, there should be a national-to-international recognition of indigenous economies.[127]

Although it is difficult to measure how indigenous knowledge could be based on intangibleness, it is worth noting that this knowledge strengthens many sustainable economies. It may help ensure certainty in investments, facilitate transactions among indigenous people, allocate resources to various indigenous community members, and provide the smooth distribution of goods and services.[128]

As previously indicated, indigenous knowledge could elevate the African economy because of its trade potential.[129] Therefore, it is understandable that the AU would want to safeguard this knowledge. Commercialisation in the context of indigenous

[125] Albers-Schdnberg (1995) 40.
[126] *Ibid*.
[127] n 125 above.
[128] Albers-Schdnberg (1995) 40-41.
[129] Edmund Phelps, 'The dynamism of nations: Toward a theory of indigenous innovation' (2018) 30 Journal of Applied Corporate Finance 8–26. See also Kumar Perampaladas *et al*, 'The road to commercialization in Africa: lessons from developing the sickle-cell drug Niprisan' (2010) 10(1) BMC International Health and Human Right 511 <http://www.biomedcentral.com/1472-698X/10/S1/S11> accessed 13 August 2023. Take for an example the use of Niprisan to cure Sickle cell anemia. Sickle cell anemia is a disease that attacks natural oxygen flow in a human's body. A traditional healer in Nigeria was consulted by pharmaceuticals, where benefit sharing agreements were concluded in order to use this indigenous-based plant to cure multiple anatomical diseases. This drug was found to have prospects of generating millions of dollars a year within Nigeria alone. This shows the economic viability the knowledge has, which in turn would advance economic development in Africa as whole. Be that as it may, the drug did not make it big as anticipated and the dream fell short. Such demise was attributed to issues pertaining to inadequate cash flow, mismanagement, manufacturing and development challenges. When ensuring protection of indigenous knowledge, such issues should be considered to avoid failure to achieve the economic independence and development of Africa. It was estimated that approximately 43 billion US Dollar is generated from indigenous knowledge-based resources, where indigenous community only receive 0.001 percent of the profits. Angola, Cameroon and Burundi exports tree species Prunus Africana and generate an annual turnover of approximately 220 million US Dollar. In South Africa, the rooibos production generates an amount of 642 000 US Dollars yearly. See Tommy Trenchard, Trendy rooibos tea finally brings revenue to indigenous South African farmers; (2023) <https://www.npr.org/sections/goatsandsoda/2023/05/27/1176439193/local-farmers-in-south-africa-were-cut-out-of-rooibos-tea-cash-now-change-is-bre> accessed 15 September 2023. Furthermore 1.5 billion US Dollars has been generated from traditional medicine in South Africa. See Myles Mander *et al*, Economics of the Traditional Medicine Trade in South Africa' (2007) Health Systems Trust 89 <Economics of the traditional medicine trade in South Africa care delivery (journals.co.za)> accessed 15 September 2023.

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knowledge relates to putting knowledge into a large society for global market recognition, either as an article or a recipe for developing that article.[130] Despite the economic viability of indigenous knowledge and resources, Africa faces economic challenges owing to its rich knowledge.[131] State parties to the AfCFTA Agreement use indigenous knowledge, among other things, to develop Africa economically.[132]

More literature is needed on the effects of commercialising indigenous knowledge, mainly because indigenous knowledge as a trade commodity is a recent and rising trend. The impact of this limited literature raises the risks of the unregulated use of indigenous knowledge, therefore curtailing the viability of the knowledge's sustainable use.[133] This is mainly because, by understanding the effects, the responsible parties could plan and implement measures to curtail any adverse effects. In response to the above challenge, reliance is put on the assertion by Oleg and Shevliuga, who note that governments can use financing, institutional support, and regulation to ensure the controlled commercialisation of knowledge.[134]

To validate this claim, examining how regulatory mechanisms can be fused into commercialising indigenous knowledge in Africa is essential. Legislative measures are part of the regulation mechanisms that outline a basis for commercialising a particular article. This paints a picture of an article's acceptance, availability, and awareness to be commercialised.[135] Through regulations, public authorities introduce rules that influence how the market accepts a commercial article.[136] The purpose of the first

[130] See World Health Organisation, 'Traditional medicine' (2008) Chinese Journal of Integrative Medicine.
[131] Nwuke, Kasirim, 'Science, Technology and Innovation Policy in Africa in the Age of Brilliant and Disruptive Technologies: An Analysis of Policies at the National, Regional and Continental Levels' (2015) Economic Commission for Africa. This can also be seen through the fact that no African is in the top 10 patent applications granted worldwide.
[132] See the Preamble to the AfCFTA Agreement.
[133] See Bruno Dyck *et al*, 'A novel NGO approach to facilitate the adoption of sustainable innovations in low-income countries: Lessons from small-scale farms in Nicaragua' (2019) 40 Organisation Studies 443–461. See also Xiaolan Fu *et al*, 'Innovation and productivity in formal and informal firms in Ghana' (2018) 131 Technological Forecasting and Social Change 315. Major issues preventing this commercialisation is lack of access to finance, lack of access to the markets.
[134] Olefirenko Oleg and Olena Shevliuga. 'Commercialisation of innovations: Peculiarities of sales policy at innovation active enterprise' (2017) 13 Innovative Marketing 6.
[135] Jakob Edler *et al*, *Handbook of Innovation Policy Impact* (Edward Elgar Publishing 2016).
[136] *Ibid*.

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regulation was to encourage innovation. This can be achieved by creating IPR. Currently, IPR does not provide indigenous knowledge.[137]

The second purpose is to achieve specific objectives, such as ensuring the preservation of the indigenous people's environment, conserving the natural and other resources of an indigenous nature, and ensuring controlled trading in indigenous knowledge-based natural resources. With the possibility of some indigenous community members opposing the regulation of indigenous knowledge, one could argue that regulation then creates controversy in indigenous communities. This is the case because only some members of an indigenous community would find commercialising indigenous knowledge to be both ethically and morally right. Regulation would respond to concerns about the conservation of natural resources, as it will ensure that those who rely on natural resources for development do not overuse them while prioritising revenue generation.

Financing and institutional support, as mechanisms for commercialisation, also play an essential role in ensuring successful trade. In the context of indigenous knowledge, this may occur through the assistance of individuals and organisations that trade in indigenous knowledge. This can be achieved through programmes such as state subsidies. For example, documenting a specific indigenous idea may require more funds, which indigenous communities may not have received due to their impoverished economic status. The principles associated with financing, regulation, and institutional support must be noticed in developing mechanisms to safeguard indigenous knowledge in the context of the AfCFTA Agreement.

Indigenous knowledge, an immaterial and intellectual commodity, makes it an IPR. As a result, it is essential to explore the theory of IPR protection. This discussion answers whether it is appropriate to safeguard indigenous knowledge in the context of trade. This is the case, as the recent trend has shown the inclusion of IPR clauses/chapters in trade agreements. Therefore, the following section discusses the theoretical perspectives on safeguarding indigenous knowledge.

[137] This will be discussed in chapter three below as part of exploration of the legal framework on safeguarding of indigenous knowledge systems.

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2.4. Theories for safeguarding indigenous knowledge

2.4.1. Introduction

To contextualise the study, various theoretical perspectives were adopted: biopiracy theory, intellectual property theories,[138] and economic theory. This chapter hints at the main theories that best suit the study's objectives and justify their choices, as they will help unpack the research questions in the following chapters. Intellectual property theories promise to safeguard indigenous knowledge in the context of trade. IPR theories justify safeguarding indigenous knowledge in the context of the AfCFTA Agreement, answering whether trade agreements are appropriate for safeguarding indigenous knowledge. When developing guidelines to safeguard indigenous knowledge in the context of the AfCFTA Agreement, the concept of FPIC guides how benefit sharing and free, prior and informed consent should be integrated into the safeguard mechanisms, while the biopiracy theory instils the Afrocentric approach to safeguarding indigenous knowledge.

2.4.2. The biopiracy theory

Biopiracy is concerned with the process or manner in which natural resources are appropriated for commercial purposes.[139] The theory of biopiracy shapes this study's approach by providing rules on benefit sharing and informed consent, as discussed below. The context of biopiracy in this study deals with what indigenous knowledge means and the propriety of safeguarding indigenous knowledge in the context of trade – specifically the AfCFTA Agreement.

The concept of biopiracy was first used as a flag against the unethical practice of appropriating natural resources.[140] Although it has been used as a guard against the unjustified appropriation of indigenous natural resources, just like the concept of indigenous knowledge, there is no universally accepted definition of the concept. The Oxford Dictionary has attempted to give this meaning by holding that biopiracy is:

[138] Natural rights and labour theory; Utilitarianism; Personhood, ethic and reward theory.
[139] Oxford Dictionaries, 'Bioprospecting' Oxford Press Dictionaries.
[140] Lawrence Helfer, 'Regime shifting: The TRIPS Agreement and new dynamics of international property lawmaking' (2004) 29(1) Yale Journal of International Law 1.

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> "a practice of commercially exploiting the communities of origination of their natural materials, by obtaining patents over such materials, restricting the same community from using the materials in the future, while they failed to compensate them".[141]

The Action Group on Erosion, Technology, and Concentration (ETC Group) defines biopiracy as the appropriation of genetic resources and knowledge connected by persons who aim to gain a monopoly over an article through IPR.[142] Shiva outlined that biopiracy is concerned with the use of the IP regime to exclusively own and control biological resources, products, and the processes associated with the same, which indigenous communities and non-industrialised cultures have used.[143]

When means of appropriating knowledge other than through the IP regime are used, some scholars argue that biopiracy is likely to occur.[144] However, this study argues that even when the IP regime is used, biopiracy may still occur since the IP regime does not presently cater for indigenous knowledge. The biopiracy theory advances the need to safeguard indigenous knowledge by ensuring that those who use it or indigenous knowledge-based resources obtain informed prior consent from indigenous community members; therefore, benefit-sharing agreements have to be entered into in favour of the indigenous community.[145]

Issues related to the *Hoodia* plant and rooibos disputes are the best practical examples of how the biopiracy theory and the FPIC concept apply to the advocacy and activism for safeguarding indigenous knowledge. The development of an appetite medicine by the South African Council for Scientific and Industrial Research (CSIR)

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[141] Oxford Dictionaries, 'Biopiracy' Oxford University Press <http://oxforddictionaries.com/definition/english/biopiracy> accessed 16 July 2023.
[142] Action Group on Erosion, Technology and Concentration <http://www.etcgroup.org/issues/patents-biopiracy> accessed 16 July 2023.
[143] Vandana Shiva, *Protect or Plunder? Understanding Intellectual Property Rights* (Zed Books 2001) 49.
[144] See Daniel Robinson, *Confronting biopiracy: Challenges, cases and international debates* (Earthscan 2010). See also Graham Dutfield *Intellectual Property, Biogenetic Resources, and Traditional Knowledge* (Earthscan 2004, who reflected on the concept, that it refers to an unauthorised access to biological materials and/ or indigenous knowledge associated with the biological materials, held by the developing countries and least developed; and patenting otherwise "false" inventions, on the basis of knowledge obtained from indigenous communities without compensation, and presented as a new idea during patent application.
[145] Coenraad Visser, 'Biodiversity, bioprospecting, and biopiracy: a prior informed consent requirement for patents: analyses' (2006) 18(4) South African Mercantile Law Journal 429.

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received backlash from the South African community, owing to the institution's failure to acknowledge indigenous communities as the sources of the knowledge used to develop a medicine designed for hunger and appetite-related issues. This indicates how indigenous communities have been exploited for their indigenous knowledge through the decades.

Subsequently, in 2003, a benefit-sharing agreement was established between the San people and the CSIR.[146] The essence of this agreement indicates how the theory of biopiracy may highlight the development of guidelines for safeguarding indigenous knowledge in the context of the AfCFTA Agreement. Suppose the concern of indigenous communities is that they need to be included in the decision-making processes and receive no benefits from the revenue made on products based on indigenous knowledge. In that case, benefit-sharing agreements are the solution.

Although benefit sharing was not a response to any legal instrument,[147] The lack of a protective framework for the San people suggested the need to consider developing a framework for safeguarding their knowledge. The position would have been the same had the patent application been made after the Patent Act.[148] was enacted. This indicates a need to ensure an adequate framework for safeguarding indigenous knowledge for the economic development objective of the AfCFTA Agreement.

Nestle has also been accused of unlawfully appropriating the Rooibos plant.[149] The allegation is based on the South African Biodiversity Act,[150] which requires a foreign entity wishing to use South African-based resources to obtain consent from the government (benefit-sharing agreement).[151] A similar provision is found in the Patent Act, where it is required that an application for a patent must be accompanied by a statement indicating that the article sought to be protected is not derived from any

[146] WIPO, 'Leveraging Economic Growth through Benefit Sharing' < https://www.bing.com/search?q=WIPO%2C+'Leveraging+Economic+Growth+through+Benefit+Sharing'&cvid=48655c26e661419b9e51cd52076ee3e9&gs_lcrp=EgZjaHJvbWUyBggAEEUYOTIHCAEQRRj8VdIBCDE3MDlqMGo5qAIAsAIA&FORM=ANAB01&PC=U531.> accessed 05 October 2023.
[147] *Ibid*.
[148] n 146 above
[149] Farmers Weekly, 'Nestle accused of rooibos robbery' (2021) Caxton& CTP Publishers and Printers.
[150] National Environmental Management: Biodiversity Act 10 of 2004.
[151] See section 81 and 82 of the Biodiversity Act.

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indigenous biological or genetic resource and indigenous knowledge/knowledge-based resource usage.[152]

When an applicant indicates that the invention is based on indigenous knowledge or uses genetic and biological resources, he must show that he has the authority to lodge such an application.[153] However, the above provisions do not apply to indigenous knowledge use where no indigenous biological and genetic resources have been used.[154] Another loophole in the Act is its applicability. Since patents are territorial rights,[155] a person can still go to another country and apply for a patent over an article based on indigenous knowledge/biological or genetic resources of a similar nature.[156]

The main criticism of biopiracy is that it does not exist in practice. An argument to substantiate this claim is that institutions allegedly steal biological resources act by the IP regime of a specific jurisdiction at a given time.[157] While it is true that the IP regime is mainly used to expropriate indigenous knowledge unlawfully, there are still many other ways in which indigenous knowledge is currently being expropriated.[158]

Collecting indigenous knowledge or knowledge-based resources without informed consent may only occur with the involvement of the IP regime. The world is seeing a sharp rise in benefit-sharing agreements between indigenous communities and third parties. Failure to abide by the conditions in these agreements also leads to biopiracy. In cases where indigenous knowledge is treated as a trade secret, it may be stolen, leading to unlawful competition. This also does not necessarily form part of IP regime use in exploiting the indigenous communities of their indigenous knowledge.

[152] Section 30(3A) of the Patent Act 38 of 1997.
[153] Section 30(3B) of the Patent Act 38 of 1997.
[154] See LeeAnn Tong, 'Aligning the South African intellectual property system with traditional knowledge protection' (2017) 12(3) Journal of Intellectual Property Law & Practice 179.
[155] That they apply only to a region where an application for a patent over a certain article has been granted in, and not the other. E.g. a patent granted in South Africa does not apply in Zimbabwe, thus another person may still apply for a patent in Zimbabwe on the same terms as one in South Africa.
[156] Chapter five adds into this by examining the South African legal framework on indigenous knowledge. But it suffices to argue that despite the promissory nature of the South African legal framework on indigenous knowledge, there still exist gaps that needs to be filled.
[157] Maxim Gubarev, 'Misappropriation and patenting of traditional ethnobotanical knowledge and genetic resources' (2012) Journal of Food Law and Policy 72.
[158] These include unauthorised collection, benefit sharing, trade secrets, violation of regulations, and ethical issues.

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In the case of South Africa, there are regulations and legislation aimed at safeguarding nature.[159] In particular, sections 30(3A) and 30(3B) of the Patent Act[160] Arguably protect indigenous knowledge. Therefore, it is argued that the excuse that the IP regime is inadequate to safeguard indigenous knowledge cannot stand. This is because, even without relying on the IP regime as an excuse, people may still commit biopiracy in contravention of ethical standards, regulations and other trade rules.

It is also argued that the Global South uses the biopiracy narrative to settle the political scores of post-colonial entitlement for affirmative action purposes.[161] It is further argued that the Global and Developing South will continue to use this concept for enrichment.[162] It is only fair that the biopiracy argument be applied as long as the rightful owners of resources are not compensated for their rights in the resources used to develop tradeable articles with economic value. Developing an indigenous knowledge-based article creates a monopoly right and should be safeguarded.

The fact that developing continents do not have the upper hand does not mean that this exploitation should continue on that basis. Corrective measures need to be implemented. This speaks to the objectives of this study – to develop specific guidelines that address the safeguarding of indigenous knowledge in the African context of the AfCFTA Agreement.

Based on the above discussion, the biopiracy perspective justifies safeguarding indigenous knowledge for trade purposes, among other reasons, such as human rights activism. It advances the need to benefit the indigenous community from the benefits or profits of appropriating indigenous knowledge/knowledge-based resources. Since profits can be made only when this knowledge is traded, this theory justifies safeguarding indigenous knowledge in the context of trade while ensuring the balance

[159] National Environmental Management: Protected Areas Act 57 of 2003; National Environmental Management: Biodiversity Act (10/2004): Commencement of the Alien and Invasive Species Lists, 2020 and the Alien and Invasive Species Regulations, 2020 [G 44182 – GoN 115]. The case of *Alexkor Ltd and Another v the Richtersveld Community and Others* 2004 (5) SA 460 (CC) serves as a guidance on the indigenous community's tight to claim protected areas. In this case, the Alexkpr community was granted the right over an indigenous land which they have lived and developed over years. The essence of this proclamation is that violating these rules then results in the biopiracy of indigenous knowledge and indigenous knowledge-based resources.
[160] Patent Act 38 of 1997.
[161] Paul Heald, 'The Rhetoric of Biopiracy' (2003) 11 Cardozo Journal of International Law and Comparative Law 521.
[162] *Ibid*.

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of interests of the indigenous communities and those of third parties who wish to trade in indigenous knowledge.

2.4.3. The concept of Free, Prior and Informed Consent

The right to participation and self-determination is arguably the basis for Free, Prior and Informed Consent (FPIC).[163] The FPIC conceptual framework can also be used in the context of indigenous knowledge protection in the AfCFTA Agreement. The IP Protocol speaks about including FPIC in the safeguarding of indigenous knowledge.[164] For this purpose, it is essential to outline how the principle may play out to achieve the objectives of the AfCFTA Agreement.

Slack believes that FPIC in the context of indigenous knowledge ensures that the development of indigenous peoples is democratised.[165] This would be in cases where someone who is not from a certain indigenous community advances their interest in extracting and using certain indigenous knowledge or indigenous knowledge-based resources. Through the use of FPIC rules, indigenous people would be able to determine how their indigenous knowledge is to be used by external individuals in specific indigenous communities. As a result, they would benefit from the agreed terms.

FPIC may be a tool for the inclusion of indigenous peoples in the management and/or control and acquisition of indigenous knowledge. Through this, they can determine how negotiations should be carried out, as well as the execution of agreed terms. Abebe argues that little to no application of the principle exposes the security of indigenous people.[166] This study acknowledges this argument as an important basis through which the terms for the participatory system may be implemented to safeguard indigenous knowledge and achieve the objectives of the AfCFTA Agreement.

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[163] See the UN Human Rights, Office of the High Commissioner, 'Free, Prior and Informed consent of indigenous people' (2013) 1-2 <https://www.ohchr.org/sites/default/.files/Documents/Issues/IPeoples/.FreePriorandInformedConsent.pdf> accessed 16 September 2023.
[164] See article 18(4) of the IP Protocol.
[165] Keith Slack 'Sharing the Riches of The Earth: Democratizing Natural Resource-Led Development' (2004) Ethics & International Affairs.
[166] Adem Kassie Abebe, 'The power of indigenous peoples to veto development activities: The right to Free, Prior and Informed Consent (FPIC) with specific reference to Ethiopia' (LLM dissertation, University of Mauritius 2009) 1.

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Furthermore, it is when the concerned people are included that the policymakers can determine the best practices fit for their development. This section discusses the principle/concept of FPIC as a theoretical perspective in safeguarding indigenous knowledge under the AfCFTA Agreement. FPIC comprises four main components: free, prior, informed, and consent, which must be fulfilled simultaneously.[167]

First, no force must be applied to any member of the indigenous community. There must be no external force that led to negotiations between the indigenous community and any other stakeholders. Any consent obtained fraudulently renders the procedure invalid.[168] Sometimes, consent may have been given by mistake. In such cases, such consent is not executable.[169]

This element requires that indigenous communities be given enough time to engage in matters that concern them before a decision can be made by any other stakeholder wishing to use indigenous knowledge-based resources. Indigenous communities must not be ambushed by sudden decisions concerning their resources. This means that any project must be preceded by consent.[170]

To give consent, concerned indigenous stakeholders must be aware of what they are consenting to. This is made possible by ensuring that all information concerning a certain project, including terms and conditions, is available at all times. Negotiations open an opportunity for the indigenous community to engage in issues concerning incentives, among others. It must not just be information but something that resembles the true nature of the issues concerned, with no sense of bias.

There must be a balance of interests between indigenous stakeholders and any other person. This can be done by disclosing all the factors for and against the execution of the proposed project. Most importantly, indigenous people should be aware that they

[167] Adem Kassie Abebe, 'The power of indigenous peoples to veto development activities: The right to Free, Prior and Informed Consent (FPIC) with specific reference to Ethiopia' 8.
[168] This includes also other negotiations terms where an affirmation is the only practical answer as any contrary view would not be implemented anyways.
[169] Robert Goodland, 'Free, prior and informed consent and the WB Groups' (2004) 4(2) Sustainable Development Law and Policy 1.
[170] As opposed to starting with a project and then attempt to obtain consent thereafter.

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can refuse. Furthermore, an FPIC agreement must be in a language that indigenous people can understand.[171]

Although all three elements of the FPIC revolve around this requirement, it is safe to say that this is the last requirement of the concept. This determines whether the other requirements have been met. When all other elementary requirements exist, consent can be provided. This element as a right allows indigenous people to decide whether or not they want to give consent. The applicability of this in matters concerning indigenous knowledge-based resources may include indigenous communities in large communities' leaders, agents, and acquisition institutions.[172]

Abebe argues that FPIC should be applied as a continual and adaptive process because indigenous knowledge is broad, and its nature may depend on the community from which such knowledge originates. Therefore, the application of FPIC may need to be adjusted according to the needs of each indigenous community. The FPIC principle must also be used, regardless of the project's impact. In other words, the principles should be applied whether the project of using indigenous knowledge is significant or not. This often occurs when a person intending to use indigenous knowledge does not intend to take much from indigenous knowledge. A person may approach a person in an indigenous community to ask a small question or about a minor aspect of indigenous knowledge-based resources, depending on the need and purpose of the information. However, they should be subject to the principles of FPIC.

When consulting/negotiating to conclude an FPIC agreement, the negotiations should focus on the needs of indigenous people/communities.[173] The flexibility that the principle advocates requires that indigenous communities be the ones to decide according to their customs, how their indigenous knowledge should be managed, controlled, transferred, acquired, and applied.[174] However, it may happen that when indigenous community leaders are engaged, no consensus emerges. It is therefore required that there be certainty about the elected leaders' understanding and impartial

[171] Robert Goodland, 'Free, prior and informed consent and the WB Groups' 67.
[172] [172] Robert Goodland, 'Free, prior and informed consent and the WB Groups' 190.
[173] Marcos Orellana, 'Center for International Environmental Law' (2008) 102 American Journal of International Law 845.
[174] Maurizio Farhan Ferrari and Marcus Colchester 'Making FPIC work: Challenges and prospects for indigenous peoples' (June 2007) Forest Peoples Programme, Moreton- in- Marsh 5.

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observance of the community's customs. However, this does not entirely exclude states from decision-making processes. State intervention may be necessary to ensure that the decisions taken conform to existing laws, considering how customs marginalise a certain group of people.[175]

Abebe further argues that FPIC should not be individualised in its application.[176] This ensures flexibility, as indigenous communities consist of people with different understandings of indigenous customs, and little to no comprehension of ethos.[177] It has been argued that indigenous rights are *sui generis* rights.[178] This follows the discrepancies in human rights, an intellectual property regime, or trade law, to name a few, in safeguarding indigenous knowledge. As a result, Adebe is advocating applying the FPIC rule in the context of "an own kind" regime in safeguarding indigenous knowledge. This view of the FPIC may guide the development of specific guidelines for safeguarding indigenous knowledge under the AfCFTA Agreement.

Like any theoretical perspective, the implementation of FPIC theory has its challenges. In cases where indigenous communities disagree with a particular leader negotiating for indigenous knowledge-based resources, there may be duplicate elections.[179] Consequently, the process does not unfold. This study aimed to explore this aspect and to determine how leaders should be elected to facilitate community engagement to consider African experiences for safeguarding indigenous knowledge. The challenges above cannot discredit the applicability of the FPIC concept in the discourse on preserving indigenous knowledge. The election of an indigenous community leader cannot be a problem if democratic processes are followed; that is, the fair and equitable election of a representative for an indigenous community.

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[175] For example, ill-treatment of females in certain customary practices such as succession.
[176] Adem Kassie Abebe, 'The power of indigenous peoples to veto development activities: The right to Free, Prior and Informed Consent (FPIC) with specific reference to Ethiopia' 11.
[177] See also Patrick Thornberry, Indigenous peoples in international law (Manchester University Press 2002) <http://www.jstor.org/stable/j.ctt155jg1p.> accessed 7 August 2023.
[178] *Sui generis* rights are rights of their own kind. For indigenous knowledge, these are rights which were initially overlooked based on their character. Upon the raise of advocacy on their safeguard, it is discovered that they differ with other fundamental rights. In this context, indigenous knowledge are a *sui generis* IPR which are developed collectively by the community, as compared to individual nature of other IPR such as patents and trademarks. See Patrick Macklem and Ed Morgan 'Indigenous rights in the Inter-American system: The Amicus brief of the Assembly of First Nations in *Awas Tigni v Republic of Nicaragua* (2000) 22(2) Human Rights Quarterly 579.
[179] Emily Mcculloch, 'Free, Prior Informed Consent: A struggling international principle' (2021) 44(5) Public Land& Resources Law Review 241.

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Another view is that FPIC theory undermines the principle of state sovereignty over its natural resources.[180] The principle of state sovereignty over natural resources concerns the absolute ownership of natural resources.[181] If indigenous people are given power over natural resources, the state would no longer controls such natural resources.

Therefore, the knowledge used to develop different articles from raw natural resources is an intellectual work that deserves protection. The best possible way to deal with the use of natural resources is to impose regulations on the extent to which they can be used. This would ensure the sustainable use of natural resources, contributing to the indigenous communities' sustainable development. Giving incentives for intellectual labour would also encourage innovation, which is an exemplary aspect of sustainable development.

The FPIC concept provides a direction for protective measures to be taken in the context of the AfCFTA Agreement. This study builds on its tenets and recommends how the idea may be implemented to safeguard indigenous knowledge in the context of the AfCFTA Agreement. As this study supports viewing indigenous knowledge as an IPR, it is essential to consider how the FPIC would be applied in the IP regime.

The following section discusses the IPR protection theories from which the FPIC concept may find expression.

2.4.4. Theories of intellectual property rights protection

Intellectual property (IP) deserves legal protection like any other (tangible) property. IP, such as inventions, is works of intellect that, when protected, benefit the one who invented them. The protection of IP promotes future innovation because of its incentivisation effect. IP rights are divided into various segments, including patents, copyright, trademarks, industrial designs, and geographical indications.[182] Exploring the theoretical justifications for protecting IP is essential to understanding the rationale

[180] See Pershuram Tamang, 'An overview of the principle of Free, Prior Informed Consent and indigenous peoples in international and domestic law and practice' (2015) Workshop on Free, Prior Informed Consent, United Nations.
[181] *Ibid*.
[182] Safar Kishor Savale, 'Intellectual property rights (IPR)' (2018) 5(6) World Journal of Pharmacy and Pharmaceutical Sciences 2529.

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for safeguarding indigenous knowledge as IP rights.[183] This section discusses the different viewpoints on why intellectual creation deserves legal protection.

The discussion is based on naturalist, utilitarian, personhood, and ethic and reward theories. The discussion also focuses on social planning and economic theory. Since most trade agreements now include IPR sections, including the AfCFTA Agreement, with the IP Protocol, the discussion of the theories of IPR protection becomes essential. This chapter answers the question of the propriety of safeguarding indigenous knowledge through trade agreements. This was achieved by examining the IP framework aspect of trade concerned with indigenous knowledge.

2.4.4.1. The natural rights and labour theory

This theory is found in John Locke's writings. John Locke believed that a person has private rights over corporeal property.[184] According to this theory, everyone is entitled to regard the product of their intellect as natural property. Effort and labour to produce a specific idea are the backbone of this theory.[185] On this bone of contention, it is justified to regard intellectual work as equal to tangible property rights. Therefore, the right to restrict others from using one's rights exists in both categories of property rights. On this basis, Locke regarded the law of invention as a succession of natural laws.[186]

Ndlovu believes that investing time and labour into creating something will entitle them to institute a claim for violation of rights if any other person attempts to use such inventions/ creations without the consent of the inventor/ creator.[187] The naturalist theory supports conservation by requiring the appropriator to appropriate only what is needed.[188]

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[183] In this study, the word theory will be used to also mean principle or concept.
[184] Justin Hughes, 'The philosophy of intellectual property rights' (1988) 287 Georgetown Law Journal 177.
[185] Hanri Mostert, 'The Development of the Natural-law Principle as One of the Principles Underlying the Recognition of Intellectual Property. A Historical Survey from Roman Law to Modern-day Law' (1987) 104 South African Law Journal 480.
[186] Michael Morrissey, 'An alternative to intellectual property theories of Locke and Utilitarian economics (MA Thesis, Louisiana State University 2012) 1.
[187] Lonias Ndlovu, 'Access to medicines under the World Trade Organisation TRIPS Agreement: A comparative study of selected SADC countries' (LLD Thesis, University of South Africa 2014) <thesis_ndlovu_l.pdf (unisa.ac.za)> accessed 20 June 2023.
[188] *Ibid*.

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In the context of indigenous knowledge, this theory justifies its protection as IPR. Indigenous knowledge is often the work of mind where indigenous people develop ideas and knowledge about a specific article. For example, roots are mixed to make a particular medicine for a disease. Therefore, indigenous knowledge should be protected as a natural right based on its development form. Furthermore, in terms of usage, this theory supports sustainable development.[189]

Some authors argue that this theory needs to address the capping of IPR. This is because IPRs are capped naturally, and the holder no longer enjoys legal protection after a certain period.[190] This theory provides for unlimited protection of traditional and tangible properties. While this is a criticism of the theory regarding the nature of IPR, it is good that a right exists indefinitely. Indigenous knowledge should be treated as an IPR, not subjecting it to a specified period.

Locke's naturalist principle of equity and creative liberty suggests that no right is granted over an idea where such a grant would prevent future invention in a similar area.[191] It does not restrict future inventions but instead promotes authenticity and recognises the efforts one has put into developing a particular aspect of indigenous knowledge. As a result, this study argues that the unlimited protection of indigenous knowledge should be encouraged.

Furthermore, the idea that one is limited only to minimal resources to avoid depletion means that an innovator cannot use their right to dominate the market. However, there would be no *mala fide* appropriation. Regarding indigenous knowledge, one is open to how one can develop an understanding of a specific aspect. Capping the extent to which natural resources can be used is a positive approach to the sustainable use of the resource, therefore ensuring sustainable economic development. It should be seen as a regulatory measure to avoid abusing natural resources for personal enrichment.

2.4.4.2. Utilitarian theory

[189] To be discussed below in section 2.6.
[190] See Jeremy Bentham, 'Of the principle of utility' in Peter Singer, Ethics (Oxford University Press 1994).
[191] Yechiel Leiter, 'Locke's unusual natural law' in John Locke, Political philosophy (Cambridge University Press 2018) 86.

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Jeremy Bentham's work is a basis for this theory and argues that something is morally good if it results in the greatest good for the majority.[192] Conduct must be concerned with social welfare to be acceptable. The theory recognises cultural and industrial resources that promote economic development in society. Regarding the IP regime, this theory encourages inventiveness and creation.[193] In this sense, it would serve a good purpose if creating a specific IP resulted in benefits that exceeded the creation cost.

The utilitarian theory disapproves of using IP rights such as trade secrets. This is because the application of trade secrets results in the public being barred from using a specific right in favour of the inventor.[194] The effect of this is that it does not bring about a much greater good, as the general public does not benefit from such a right. It is also known as incentive theory because it endorses the duty of society to respect someone's invention and ownership rights.

The utility theory stands to benefit the indigenous community at large. Since the goal is to bring happiness to many people, safeguarding indigenous knowledge in the context of the AfCFTA Agreement would bring joy to many indigenous people. This would be when the economic development objectives of the Agreement were achieved, as indigenous communities would benefit from the profits generated from trading in indigenous knowledge.

It is argued that this theory discourages creation when intellectual property protection does not yield satisfaction to many people, as it always does, and as far as patents are concerned.[195] Suppose safeguarding indigenous knowledge is implemented considering the interests of African indigenous communities. In that case, many people will likely be satisfied by applying the theory.

It is also argued that it is challenging to assess the harm likely to be caused to determine whether certain conduct is exemplary. Utility theory considers the

[192] Edem Udoaka, 'An analysis of the theories of intellectual property' (2008) 3(1) Ikeja Bar Review 1.
[193] Gerald Barnes, 'Utilitarianisms' (1971) 82(1) Ethics 56.
[194] Faisal Santiago, 'Trade secrets protection on globalization era' (2017) 20(4A) European Research Studies Journal 66.
[195] For example, developing a method that results in humans being hurt cannot bring greater happiness to people at large. See Ned Snow, 'Moral bars to intellectual property: Theory & apologetics' (2021) 28(75) University of Carolina Entertainment Law 75.

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accumulative outcome as opposed to the distributive outcome, and, as a result, happiness may be disproportionally distributed towards a conclusion.[196] Another concern about this theory is its workability. It is argued that people cannot always predict the outcome of their actions and, therefore, would not be able to determine if an action is accurate.[197]

It is not possible to bring about happiness to everyone. The utility theory concerns many people finding joy in a particular situation. Suppose the majority of indigenous communities are happy because of safeguarding their indigenous knowledge through the IP regime. In that case, a conclusion is that such warranted protection is beneficial and pleasing to the indigenous community.

2.4.4.3. Personhood theory

Personhood theory also stems from a development perspective. This highlights that a person must have control over their property, which can be achieved by rights assigned to that person.[198] It adopts Kant's view that a person's intellectual work resembles their personality. Accordingly, equal protection should be afforded to such people relative to their physical attributes.[199] The theory states that affording legal protection to intellectual property satisfies one's fundamental rights.[200] Hughes states that people should only give up their intellectual property on the condition that they are compensated for it.[201]

Protecting indigenous knowledge in this context would need acknowledgement that those who develop an indigenous idea are entitled to such protection that would closely relate them with that right. However, this theory may not adequately safeguard indigenous knowledge if the universal safeguarding of indigenous knowledge is placed in the community of a specific person. Frequently, a particular knowledge system is

[196] John Jamieson Smart, 'Utilitarian and injustice' in John Jamieson Smart and Bernard Williams, *Utilitarianism: For and against* (Cambridge University Press 1973).
[197] Russ Shafer-Landau, The fundamentals of ethics (Oxford University Press 2010).
[198] Edem Udoaka, 'An analysis of the theories of intellectual property' 172.
[199] This is supported by the fact that each person has their own unique personality, and as such opens a room to have distinct intellectual characters protected through intellectual property law. See Garima Gupta and Avi Raustogi, Intellectual property rights: Theory and Indian practice' (2002) Working Paper Series, Centre for Civil Society.
[200] William Fisher, 'Theories of intellectual property' in Stephen Munzer (Ed), *New essays in the legal and political theory of property* (Cambridge University Press 2001).
[201] Mikhalien du Bois, 'Justificatory theories for intellectual property viewed through the constitutional prism' (2018) 21 Potchefstroom Electronic Law Journal 1.

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attributed to an indigenous community rather than a specific person who invented an idea that became indigenous knowledge.

This theory does not create an indefinite monopoly over intellectual property rights. This is because they are rooted in the existence of a person. Upon death, they cease to operate.[202] It has also been argued that this theory fails to deal with the property arising from supernatural powers.[203] Since a personhood theory attaches rights to a specific person, applying this theory to safeguarding indigenous knowledge through the IP aspects of trade agreements, including the IP Protocol, would be difficult.

2.4.4.4. Ethic and reward theory

This theory suggests that a person must be rewarded for their ability to produce an original article.[204] The reward one receives for such an invention is ethically and morally awarded.[205] Inventors are awarded to develop an article that also benefits society.[206] Instead of being afforded exclusive rights, an inventor is afforded rewards for their invention. Well-known information is one of the most critical aspects of the theory.[207] An important aspect is ensuring that those who generate such knowledge are compensated fairly. IPRs, such as patents, copyrights, and trademarks, are perfect examples of where the theory may be applied.

This is one of the IPR theories that mainly applies to the reality of indigenous knowledge and practice. This is because much indigenous knowledge is known to the public. However, as previously indicated, that does not disentitle the owner of such knowledge from the incentives for developing such ideas of an indigenous nature with economic viability. In this case, those who create a specific idea must be compensated while their knowledge remains in the public domain.

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[202] *Ibid*. This may create issues in justifying intellectual protection of indigenous knowledge as the knowledge is a collective right shared amongst generations. Attributing property rights to a certain person would thus create succession problems.
[203] In the context of indigenous knowledge, this theory may be difficult to apply, given the fact that some indigenous knowledge emanates from spiritual realm, that no one can tangibly point.
[204] This may be done through giving that person incentives. The reward must also be extended to legal protection. This is based on the fact that such developed article is going to benefit the society at large.
[205] *Ibid*.
[206] Hanri Mostert, 'The development of the natural-law principle as one of the principles underlying the recognition of intellectual property. A historical survey from Roman law to modern-day law' 500.
[207] Edwin Hettinger, 'Justifying Intellectual Property' (1989) Philosophy and Public Affairs 31.

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Some scholars argue that a once-off reward over a property is sufficient. They argue against a continued monopoly on the right. In the context of indigenous knowledge, it may be difficult to reward the descendants of inventors/ creators of indigenous knowledge.[208] This is because they are not regarded as owners of indigenous knowledge in the current intellectual property regime.[209] This study attempts to answer the question of to whom ownership rights must be conferred concerning indigenous knowledge and knowledge-based resources.

2.4.4.5. Social planning theory

Social planning theory, also known as incentive theory, is concerned with societal well-being. It outlines that the protection of intellectual property rights is encouraged for the benefits that society gets from such protection.[210] The main goal is to ensure that the community benefits. Therefore, the theory does not differ significantly from the utility perspective.

Safeguarding indigenous knowledge in the context of the AfCFTA Agreement would ensure the social well-being of indigenous people/communities. If these indigenous communities benefit from the profits made in trading indigenous knowledge, then a conclusion can be drawn that socio-economic issues would have been dealt with. Income generation would benefit these indigenous communities.

While it may be argued that IPRs such as patents, copyrights, and trademarks may be better used to curb the violation of intellectual property instead of incentives,[211] offering incentives may be a good idea, as the goal is the well-being of society. The other argument against using incentives as the backbone of the theory lies in the need for provisions for IPR safeguarding.[212] It is argued that using incentive theory to safeguard

[208] Edem Udoaka, 'An analysis of the theories of intellectual property' (2008) 3(1) Ikeja Bar Review 1.
[208] Gerald Barnes, 'Utilitarianisms' 19-22.
[209] This study argues that positioning indigenous knowledge in the context of intellectual property requires more work on guides as to how it will be fitted and protected. This stems from the historic structuring of the regime which resulted in the exclusion of indigenous knowledge for reasons ranging from politics to biopiracy. For this reason, this study will develop different specific guidelines through which indigenous knowledge may be safeguarded under the context of the AfCFTA Agreement. It may be possible that a theory like this will find a place of application then.
[210] Edwin Hettinger, 'Justifying Intellectual Property' 36.
[211] Edwin Hettinger, 'Justifying Intellectual Property' 49-50.
[212] Mikhalien du Bois, 'Justificatory theories for intellectual property viewed through the constitutional prism' 23.

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indigenous knowledge may not be appropriate, given that indigenous knowledge was never created for incentive purposes.[213]

However, change is imminent and should be appreciated. This is also the case with indigenous communities. How indigenous people view their indigenous knowledge can differ from how they perceive it in the current era. This includes viewing it from a commercial perspective. That said, it is argued that the incentive-based theory justifies safeguarding indigenous knowledge for the commercial objectives of the AfCFTA Agreement.

2.4.4.6. Economic theory

IPR are as good as monopoly rights. This is because their existence creates an economic market.[214] This theory states that an article's production and distribution costs must not outweigh the incentives to achieve economic objectives.[215] It is argued that safeguarding intellectual property encourages creation, as non-protection would lead to limited invention despite a particular product having profit prospects.[216] Competition among inventors is the reason that IPRs are limited.[217] Economic theory resonates with the idea posited by this study that intellectual property may be used to ensure economic development.

This theory justifies the safeguarding of indigenous knowledge to dominate trading markets. If indigenous people continue to develop specific expertise or ideas, the market will have enough to trade with. The objective of safeguarding indigenous knowledge in the context of the AfCFTA Agreement is for the AU's Agenda 2063 to see an economically developed Africa. Therefore, this theory justifies protecting indigenous knowledge.

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[213] As the incentive argument for indigenous knowledge is novel. Stephen Munzer and Kal Raustiala, 'The Uneasy Case for Intellectual Property Rights in Traditional Knowledge' (2009) Cardozo Arts and Entertainment Law Journal 37. Perhaps an argument of this nature is based on the misplaced fact that indigenous knowledge is "old" knowledge.
[214] Mikhalien du Bois, 'Justificatory theories for intellectual property viewed through the constitutional prism' 27.
[215] Peter Drahos, *A Philosophy of Intellectual Property* (Ashgate Aldershot 1996).
[216] *Ibid*.
[217] See Tony Ciro, 'The scarcity of intellectual property' (2005) 1 Journal of Information, Law & Technology 1.

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It is argued that economic theory needs to answer the question of the value of incentives that inventors are supposed to receive for their inventions.[218] In the context of indigenous knowledge, it does not explain how indigenous knowledge should be measured to determine compensation. An inventor of an article has the freedom to decide how much value they put on their invention. Safeguarding indigenous knowledge from this perspective does not present material challenges, as argued above. The indigenous communities could still decide on the value of their inventions.

2.4.4.7. A brief overview of the theories of indigenous knowledge protection

Flowing from the discussion and contextualisation of theories for indigenous knowledge protection, this study adopts a sustainable development theoretical framework that blends the utilitarian, social planning, FPIC, and economic theories as they best justify safeguarding indigenous knowledge in the context of the AfCFTA Agreement. Therefore, this study provides essential guidelines for developing guidelines for protecting indigenous knowledge within the AfCFTA Agreement.

Essentially, whatever strategy is developed for the protection of indigenous knowledge within the AfCFTA Agreement must ensure that indigenous communities play a vital role in the exploitation of their knowledge, that they benefit from the exploitation of their knowledge, and that the exploitation of indigenous knowledge as items of trade must contribute to achieving the overall objectives of the AfCFTA. It is also essential to explore the concept of indigenous knowledge in the development debate.

As the AU seeks to use indigenous knowledge as a commodity of trade, and hence its safeguarding in the IP Protocol, it is essential to know how this knowledge would contribute to the sustainable economic development objective of the AfCFTA Agreement. As a result, the following section explores the debate on African development.

[218] Mikhalien du Bois, 'Justificatory theories for intellectual property viewed through the constitutional prism' 28.

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2.5. The African indigenous knowledge and the African development debate

2.5.1. Introduction

This section conceptualises indigenous knowledge within the development discourse. Development theory explains how indigenous knowledge may be used beyond just culture as an economic development tool. This resonates with the objectives of the AfCFTA Agreement.[219] The first part of this section discusses the theory in general, and the second part contextualises the use of indigenous knowledge to foster development in Africa, particularly in the context of the AfCFTA. It is argued that integrating development principles paves the way for eradicating the colonial hierarchy, which also dominates the economic market.[220]

This study adopts this view and argues that, if adopted, as economically poor as Africa is at present, the development perspective can help generate the hidden or unrealised capacities of indigenous knowledge and set the pace for a booming economy. In this regard, development is perceived as the process through which the needs of the people are ascertained and strategic plans are implemented to ensure better lives for the people, especially in underdeveloped/developing areas.[221] This definition fits well in the context of Africa, as it currently faces more poverty compared with other continents.[222] Therefore, there is a need to develop it to meet the needs of the people, one of which is economic freedom, which the AfCFTA Agreement seeks to actualise.

2.5.2. The development debate: An African perspective

The debate on development theory includes those who argue for and against it, as shown below. The argument relates to the pace at which Africa is developing itself

[219] Creating a single market or trading in goods and services; creating a liberalised market for goods and services; induce movement of capital; establish continental customs; promote sustainable socio-economic development; build competition spaces; and address all other challenges faced by the African continent. See article 3 of the AfCFTA Agreement.
[220] Edward Shizha and Ali Abdi, 'Introduction: Indigenous discourses on knowledge and development in Africa' in Edwards Shiza & Ali Abdi (Eds.), *Indigenous discourses on knowledge and development in Africa* (Taylor & Francis 2014).
[221] Alan Thomas, 'Development as practice in a liberal capitalist world' (2000) 12(6) Journal of International Development 773.
[222] Acemoglu Daron and James Robinson, 'Why is Africa poor?' (2010) 25 Economic History of Developing Regions 21.

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compared to other continents. Scholars such as Savage[223] have attempted to contextualise development theory in line with the position of Africa and where it is going.[224] The debate on development dates back to the 1940s, when a transition from modernisation to a dependency school of thought occurred.[225] Development was perceived as a process through which Africa moves towards economic development compared with other continents.[226]

This perspective, also known as the Harrod–Domar model of growth, existed until the 1950s. The country's ability to save more and put less into production meant it was doing well economically.[227] The theory of a Big Push is based on the same bone of contention.[228] According to this theory, multiple industries that support each other must be created, regardless of the project's size.[229] The 1970s and 1980s saw increased investment in Africa, but development theory still needed to be acknowledged.[230]

In 1953, another theory was developed to address the failure of the Big Push theory. Nurse theory attributed the underdevelopment issue to a limited market. It is argued that if there are no funds available for fuel development, this will not happen.[231] According to the theory, this perspective can also be applied to traditional societies. It indirectly advocates the extension of investing in projects, such as agriculture, to boost development.[232]

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[223] James Savage, 'The development dilemma; What's going wrong and what can be fixed?' (2013) *73*(6) *Public Administration Review* 893.
[224] See also Samuel Muriithi, *African development dilemma; The big debate* (University Press of America 1997). The answer to this has been termed as economic development, where in emancipating Africa economically is the only way to ensure that the continent stays up to the standard set by other developed or developing yet better continents. See Christopher Barrett, 'Development economics: An overview' in CB Barrett (Ed.), *Development economics: Critical concepts in development studies* (Routledge 2008).
[225] Etah Ewane, *Aid and conditionality: Enhancing good governance in Sub-Saharan Africa* (GRIN Verlag 2004).
[226] Ernst von Kimakowitz, 'The evolution of and current debate in development thinking: What defines good development?' (2012) 13(4) Humanistic Management Network Research Paper.
[227] Robert Mertow Solow, 'A contribution to the theory of economic growth' (1956) 70(1) *Quarterly Journal of Economics* 65.
[228] A theory by Rosenstein-Rodan, which advocates for investment as a means to achieve economic development. See Paul Narcyz Rosenstein-Rodan, 'Notes on the Theory of the 'Big Push'' in Howard Sylvester Ellis (eds), *Economic Development for Latin America* (Palgrave Macmillan 1961) 67-81 <https://doi.org/10.1007/978-1-349-08449-4_3> accessed 11 August 2023.
[229] The Economist, 'The Push Back: Randomised Trials Could Show if Aid Works' (2011) *The Economist*
[230] *Ibid*.
[231] Hans Bass, 'Ragnar Nurke's development theory: Influences and perceptions' in Reiner Kattel *et al* (Eds.), *Ragnar Nurkse (1907-2007): Classical development economics and its relevance for today* (Anthem Press 2009).
[232] *Ibid*.

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The development theories discussed above view humans as the end goal of why development should occur instead of only being the vehicle through which development should occur. While there are criticisms that they did not consider humans as the end goal,[233] this study argues that it cannot be that humans were not the focus of development, as the reasons for development derived from Africa's poverty.

The 1960s witnessed a new perspective in fostering development. Financial investment needed to be increased to promote growth. There must be a change in the conclusion that the development has occurred. Modern theories posit that Eurocentric theories can still be used in the context of Africa and achieve the same results as they do in Western and European countries.[234] Communication and investment in infrastructural development, education, and unity may solve the continent's underdevelopment.[235]

Dependency theorists argue that Africa is rich in minerals and other resources that can foster development in the continent; the only problem is that Africa exports much of its raw or natural materials at a lower price and imports the same at twice the price. If Africa circulated materials within the continent, there would have been much more development. According to this theory, Africa should focus on maximising the commercialisation of its resources to the value they deserve. This may be achieved if the continent creates a monopoly that eradicates the dependency syndrome on other developed continents.

Fused with Wallerstein's world system theory, this depicts political inequality that resulted in the poor development of Africa.[236] The failure of the then leaders to engage in fair trading of Africa's resources arguably contributed to the continent's underdevelopment.

The 1980s also saw the emergence of a neoliberal perspective, which was initially an industrialised state's perspective of development and was adopted to justify less

[233] Łukasz Piętak, 'Review of theories of economic growth' (2014) 17(1) Comparative Economic Research Central and Eastern Europe 45.
[234] See discussion below.
[235] Fidelis Ewane, 'Indigenous Knowledge and the Development Debate in Africa' (2018) 5(1) International Journal of African Development 64.
[236] *Ibid*.

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interference with social issues by the government. Instead of dealing with a problem per se, legislative intervention was the only justified approach through which development could be ensured.[237] Among others, the neoliberal economics theory advocated the localisation of the protection of property rights.[238] Harvey argues that political freedom, trade agreements, free markets, and property rights have the highest prospects for economic development, as this would curb a continued borrowing pattern.[239]

Ewane posits that the current debate on development takes the human rights perspective. This includes including humans as participating parties and the benefits of development.[240] As a result, development is treated as a right, compared to theory. All stakeholders involved in the rights administration must follow due process to ensure that the right is safeguarded efficiently.[241]

It was only recently that the scholarship debate on the safeguarding of indigenous knowledge has also shifted to the human rights approach.[242] This study conceded that any scholarship on safeguarding indigenous knowledge is advocacy and activism for human rights protection. While more scholarship adopts the property rights approach, it should also be noted that indigenous knowledge is part of indigenous people's way

[237] David Harvey, *A brief history of neoliberalism* (Oxford University 2005).
[238] Fidelis Ewane, 'Indigenous Knowledge and the Development Debate in Africa' 70.
[239] *Ibid*.
[240] n 238 above.
[241] The Organisation of the African Union (OAU), and subsequently, the African Charter on Human and Peoples' Rights have recognised this concept as a right: Right to development (TRD). The UN Declaration on the Right to Development, and the UN Millennium Declarations followed suit. See Laure-Hélène Piron, *The right to development: A review of the current state of the debate for the department for international development* (Department for International Development 2002) 1.
[242] Where indigenous knowledge is seen as a channel for development, thus, viewed from the human rights perspective, particularly the right to sustainable development, identity and culture. This has led to the recognition of indigenous people's rights by the United Nations as outlined in the United Declaration on the Rights of Indigenous People. See John Cantius Mubangizi and Hassan Omari Kaya, 'African Indigenous Knowledge Systems and Human Rights: Implications for Higher Education, Based on the South African Experience' (2015) 10(2) International Journal of African Renaissance Studies-Multi- Inter- and Transdisciplinary 125. See also Kamrul Hossain and Rosa Maria Ballardini, 'Protecting Indigenous Traditional Knowledge Through a Holistic Principle-Based Approach' 51. See also Ndangwa Nayoo, 'Indigenous Knowledge Systems and Their Relevance for Sustainable Development: A Case of Southern Africa' in Boon Emmanuel and Luc Hens (Eds), *Indigenous Knowledge Systems and Sustainable Development: Relevance for Africa* (Kamla-Raj Enterprises 2007) 167. Though this study does not adopt the human rights approach as a core focus, the intellectual property rights protection cannot be achieved without acknowledging human rights. On that note, it touches on the sustainable and economic development, which are founded on the premise of human right to development.

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of living, customs, and traditions – making it a cultural right and, therefore, a human right.[243]

International law increasingly acknowledges the cultural rights of indigenous people vested in their indigenous knowledge and resources.[244] It is argued that safeguarding indigenous knowledge as a human right allows the interplay of various cultural values, including, but not limited to, the sharing of benefits from articles developed from indigenous knowledge.[245] International human rights jurisprudence accepts that the cultural part of indigenous knowledge is safeguarded through human rights and the work of intellect.[246]

Although a human rights approach seems promising for safeguarding indigenous knowledge, its applicability has some criticisms. Hossain and Barlladini argue that the human rights regime only does not offer a mechanism for protection.[247] Those previously exploited for their cultural rights should be compensated, and those on the verge of being exploited should be assisted in a certain way.[248] It is argued that the United Nations Declaration on the Rights of Indigenous Peoples is not a binding instrument that affects implementation.

Reference is made to one African instrument, the African Charter on Humans and Peoples' Rights (the Charter), which does not express indigenous knowledge but provides for the protection of a (property) right, under which indigenous knowledge

[243] E.g. the United Declaration on the Rights of Indigenous People. Though not explicit, the International Labour Organisation Convention No 169 concerning Indigenous and tribal Peoples in independent countries of 1989 (ILO 169); the Universal Declaration of Human Rights, the International Covenant on Civil and Political Rights, and the International Covenant on Economic, Social and Cultural Rights normally receive an interpretation that tends to suggest their acceptance or coverage of indigenous knowledge as a human right. Kamrul Hossain and Rosa Maria Ballardini, 'Protecting Indigenous Traditional Knowledge Through a Holistic Principle-Based Approach' at 61-63. See also Fulvio Mazzochi, 'Analysing knowledge as part of a cultural framework: The case of traditional ecological knowledge' (2008/2009) 36(2) Environments 44.
[244] See Franceso Mauro and Preston Hardison, 'Traditional knowledge of indigenous and local communities: international debate and policy initiatives' (2000) 10(5) Traditional Knowledge Ecological Applications 1253.
[245] Kamrul Hossain and Rosa Maria Ballardini, 'Protecting Indigenous Traditional Knowledge Through a Holistic Principle-Based Approach' at 56.
[246] Kamrul Hossain and Rosa Maria Ballardini, 'Protecting Indigenous Traditional Knowledge Through a Holistic Principle-Based Approach' at 60.
[247] *Ibid*.
[248] Kamrul Hossain and Rosa Maria Ballardini, 'Protecting Indigenous Traditional Knowledge Through a Holistic Principle-Based Approach' 64.

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falls by categorisation.[249] Therefore, compared to the international regime, a human rights approach may guide how indigenous knowledge may be safeguarded in the AfCFTA Agreement.

Reference is made to article 24 of the Charter, which states that people have the right to an environment that is susceptible to their development. This right was considered in the SERAC case,[250] The African Commission regarded this right as one that requires the government to promote the sustainable use of natural resources and allows people to receive information about their environment as a tool for successful development.[251]

The duty of the member states to manage how indigenous knowledge is accessed and used contributes to conservation and ecologically sustainable development in that it creates a controlled environment of indigenous knowledge for developing an environment where indigenous knowledge originates without permanently disrupting nature. Although the sustainable use of indigenous knowledge is most applicable to natural resources, it is argued that ensuring a controlled use of indigenous knowledge can contribute to development, as this knowledge would need to be used in the future to generate revenue.

Development as a right (RTD) was first recognised in 1981 by the Organisation of African Unity (OAU) (the African Union (AU) since 2002) as a human right under the African Charter on Human and People's Rights.[252] It subsequently formed part of the United Nations Declaration on the Rights to Development (UN DRTD) in 1986, a non-legally binding instrument.[253] It is a relatively new addition to the international human rights framework.

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[249] Article 14 of the Charter provides that the right to property must be used to safeguard the interests of a community and must be interpreted and applied in line with other relevant laws.
[250] *55/96: Social and Economic Rights Action Center (SERAC) and Center for Economic and Social Rights (CESR) / Nigeria.*
[251] *Ibid*.
[252] See Preamble to, articles 20, 24 and 29 of the African Charter on Human and People's Rights < Microsoft Word - AFRICAN CHARTER ON HUMAN AND PEOPLES RIGHTS.doc (justice.gov.za)> accessed 23 May 2024.
[253] United Nations, 'Third Committee Underscores Need for Legally Binding Tool to Enforce Right to Development, Unrealized by Millions Worldwide, Directed Also at Businesses' (2023) < Third Committee Underscores Need for Legally Binding Tool to Enforce Right to Development, Unrealized by Millions Worldwide, Directed Also at Businesses | Meetings Coverage and Press Releases> accessed 23 May 2024.

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RTD was later reaffirmed in the 1993 Vienna and 2000 Millennium Declarations. Article 22 of the African Charter on Human and Peoples' Rights affirms RTD and its exercise.[254] It provides that achieving socio-economic development is essential for human existence and survival.[255] In the context of the UN DRTD, RTD may be subject to various interpretations, and this subsection explores the literature and judicial interpretation of the right.[256]

The case of *Centre for Minority Rights Development (CEMIRIDE) (on behalf of the Endorois) v Kenya Communication 276/2003, Centre for Minority Rights Development (Kenya) and Minority Rights Group International on behalf of Endorois Welfare Council v Kenya* African Commission[257] is essential for outlining the meaning and scope of RTD. In this case, the complainant (the Endorois community) sued the Kenyan government for violating their RTD by unlawfully evicting them from their ancestral land by citing development reasons.[258] The Endorois community alleged that such removal/eviction took away their opportunity to farm and access medicinal plants and water, depriving them of the land as their property. They alleged that the eviction unfairly implicated their fundamental socio-economical, religious and cultural rights.[259]

The African Commission on Human and Peoples Rights (African Commission) first gave its meaning to determining whether the alleged violation of fundamental human rights implicated RTD. It held that RTD encompasses the following elements: non-discrimination, participation, accountability and transparency, equity, choices, and capabilities.[260] For development to occur, people must be treated equally and included in decision-making. Furthermore, the stakeholders responsible for ensuring development in these communities should ensure that they account for every activity undertaken. This should be done most clearly to bring balance to the indigenous communities.

[254] Article 22 of the African Charter on Human and Peoples' Rights.
[255] *Ibid*.
[256] However, this section does not explore the criticisms against the existence of the right, rather, how, when recognised, is the right interpreted.
[257] Communication 276/ 2003.
[258] *Ibid*.
[259] *Endorois* paras 125-135.
[260] See generally *Endorois*, particularly paras 128, 277, and 278.

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In expanding on the prior and informed consent principle, the African Commission held that member states must consult with the indigenous people in line with their customs and traditions on how the development activities should occur in their communities.[261] Through this, member states should ensure they disseminate relevant information to and from the indigenous people.[262]

This case helps foster an understanding of RTD's content, meaning and scope. From this case, inferences may be drawn that RTD exists to safeguard the interests of indigenous people. The ancestral land taken away from the Endorois community had natural resources and expertise relevant to the development of the then-inhabitants of the Endorois community. Reference is made to paragraph 186 of the Communication, where the Commission held that property rights protect holders from unlawful encroachment of their property.[263] This would justify the protection of tangible resources associated with indigenous knowledge.

Bedjaoui submits that from how the African Commission dealt with this case, RTD is a prerequisite for achieving specific and other ancillary fundamental human rights, as the case may be.[264] Kamga argues that the *Endorois*[265] case elucidates the meaning of RTD by highlighting that RTD requires prior informed consent in activities concerning indigenous people, therefore ensuring inclusivity and equal participation in decision-making processes.[266]

Developing specific rules under article 18 of the IP Protocol depends on guidelines based on instruments promoting RTD. The African Commission has adopted a resolution recognising a human rights approach to implementing the AfCFTA Agreement.[267] The resolution provides that human rights should be the centre of focus

[261] *Endorois* paras 280, 281, and 289.
[262] *Ibid*.
[263] *Endorois* para 186.
[264] Mohammed Bedjaoui, 'The difficult advance of human rights towards universality in a pluralistic world' (1989) Proceedings at the colloquium organised by the Council of Europe in co-operation with the International Institute of Human Rights 32, cited in Serges Alain Djoyou Kamga, 'The right to development in the African human rights system: The *Endorois* case' (2011) De Jure 381 < Chapter 8.fm (scielo.org.za)< accessed 23 May 2024.
[265] *Endorois* case.
[266] Serges Alain Djoyou Kamga, 'The right to development in the African human rights system: The *Endorois* case' 390.
[267] Resolution on a Human Rights-Based approach to the Implementation and Monitoring of the African Continental Free Trade Area Agreement - ACHPR/Res.551 (LXXIV) 2023 < Resolution on a Human Rights-Based approach to the Implementation and Monitoring of the African

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when negotiating and implementing the AfCFTA Agreement.[268] This would be achieved by working closely with the African Commission and other human rights institutions.[269]

Chi Ngang highlights that people, as the central parts of development, direct the creation of legal frameworks that promote human rights.[270] She argues that a development approach to socio-economic issues in Africa is the right approach, given Africa's development challenges and the inherent rights of African people.[271] Therefore, providing the reference to development-centric frameworks means that the AfCFTA Agreement promotes development, and consequently, a development discourse is relevant in this chapter.

To correct past wrongs,[272] RTD becomes relevant for monitoring and implementing the AfCFTA Agreement. This is beneficial to the indigenous people who have had their knowledge and associated resources taken away from them without due acknowledgement or any benefit shared with them. From the writings of Gathii,[273] RTD is a collective right compared to individual rights, which must be implemented considering people at a larger scale. In this context, the IP Protocol must be implemented to promote the collective rights of indigenous people as far as their knowledge and associated resources are concerned.

Shai argues that legal transformation based on development may be compared to what is termed transformative constitutionalism in South Africa.[274] The notion that change should lead to doing away with what the colonial superpowers have done to the minds of Africans and the governance systems[275] is relevant for the monitoring

Continental Free Trade Area Agreement - ACHPR/Res.551 (LXXIV) 2023 | African Commission on Human and Peoples' Rights (au.int)> accessed 23 May 2024.

[268] *Ibid*.

[269] n 18 above.

[270] Carol Chi Ngang, 'Right to Development Governance in the Advent of the African Continental Free Trade Area' (2021) 65(2) Journal of African Law 53 < Right to Development Governance in the Advent of the African Continental Fr...: EBSCOhost> accessed 23 May 2024.

[271] Carol Chi Ngang, 'Right to Development Governance in the Advent of the African Continental Free Trade Area' 154.

[272] James Tbuo Gathii, 'Africa and the Radical Origins of the Right to Development' (2020) 1 Third World Approaches to International Law Review 28.

[273] *Ibid*.

[274] Isaac Shai, 'The right to development, transformative constitutionalism and radical transformation in South Africa: Post-colonial and de-colonial reflections' (2019) 19 African Human Rights Law Journal 494.

[275] *Ibid*.

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and implementation of the IP Protocol. From the development perspective, this would ensure that the past injustices that indigenous people have been subjected to are remedied.

Furthermore, contextualising RTD in the African context, Browning outlines that RTD is a prerequisite for the African people to attain access to property and natural resources, to protect their lives and socio-economic rights, and to secure self-determination.[276] RTD, in this context, is concerned with all aspects of life,[277] and hence its recognition in the AfCFTA Agreement's context is essential. The work of Ibhawoh is relevant to this for two reasons:[278] it contributes to the literature on the meaning of RTD and elucidates how the right ought to be implemented.

Ibhawoh argues that recognising RTD in instruments such as the United Nations Declaration on Human Rights and the UN DRTD indicates a direct link between human rights and RTD.[279] He highlights that RTD includes an equal distribution of resources and wealth between individuals.[280] In the context of indigenous knowledge and the associated resources, RTD should be implemented collectively in the best interests of indigenous people. Equal distribution, as he submits, may be linked to fair and equal access to indigenous knowledge and associated resources. ABS advocates equal distribution of benefits from access to and use of particular resources and related knowledge.

While there are arguments against realising RTD as a human right,[281] proponents of RTD argue that RTD is a prerequisite for realising fundamental human rights.[282]

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[276] Rebecca Browning, 'The right to development in Africa: an emerging jurisprudence? Examining the Endorois recommendation by the African Commission for Human and People's Rights' (2011) Kenya Law <Kenya Law: The right to development in Africa: an emerging jurisprudence? - Rebecca Browning> accessed 23 May 2024.
[277] *Ibid*.
[278] Bonny Ibhawoh, 'The Right to Development: The Politics and Polemics of Power and Resistance' (2011) 33 Human Rights Quarterly 76 < The-Right-to-Development.pdf (mcmaster.ca)> accessed 23 May 2024.
[279] Bonny Ibhawoh, 'The Right to Development: The Politics and Polemics of Power and Resistance' 80-86.
[280] Bonny Ibhawoh, 'The Right to Development: The Politics and Polemics of Power and Resistance' 104.
[281] Jacques Chonchol, 'The Declaration on Human Rights and the Right to Development: The Gap Between Proposals and Reality' (1981) 109 Development, Human Rights and The Rule of Law-Report of a Conference Held in The Hague on 27 Aprill-1 May 1981, Convened by the International Commission of Jurists.
[282] Oscar Schachter, 'The Evolving International Law of Development' (1976) 15 Columbia Journal of Transitional Law 1 <Law Journal Library - HeinOnline.org> accessed 23 May 2024.

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Recognising aspects that are human rights-centric from the content of RTD then fosters the implementation. In this study, all stakeholders responsible for implementing the AfCFTA Agreement, especially the IP Protocol, should consider their core obligations under RTD to enforce the instrument to achieve its objectives adequately.

Article 2 of the UN DRTD affirms the human-centred characteristic of RTD.[283] It provides that humans should be the primary priority for development to occur.[284] The most important part of the provision is that such should be achieved through participation and the correct allocation of benefits.[285] The focus on humans is not limited to individuals but also extended to a group of people,[286] therefore covering indigenous communities. The basis for humans as the centre of development is respecting human rights, fundamental freedoms, and their role in their respective communities.[287] This provision affirms that the RTD covers political and socio-economic aspects of development.[288]

With such obligations, states are required to develop legal and policy frameworks that aim to implement the objectives of RTD.[289] Such legal and policy frameworks are needed to promote free participation in development and equal distribution of benefits.[290] Arguably, this corresponds with the prior art disclosure, FPIC, and the equitable benefit-sharing principles suggested in the IP Protocol[291] – as discussed in the previous chapter. Therefore, approaching the objectives of this study from the development perspective serves the purpose of the IP Protocol, which is to foster African socio-economic, political, and cultural development.[292]

Furthermore, article 4 provides that to achieve development that covers all the essential aspects of life viewed from the development perspective, states should engage cooperatively with each other.[293] In protecting and managing indigenous

[283] Article 2 of the UN DRTD.
[284] Article 2(1) of the UN DRTD.
[285] *Ibid*.
[286] Article 2(2) of the UN DRTD.
[287] *Ibid*.
[288] n 287 above.
[289] Article 2(3) of the UN DRTD. The promotion of social justice in this provision is an indication of the value put on equitable benefit sharing from development activities. Furthermore, the equitable benefit sharing should be premised on the principle of equal opportunity; see also article 8(1) of the DRTD.
[290] *Ibid*.
[291] Article 4 of the UN DRTD.
[292] See articles s 3, 4, and 5 of the AfCFTA Agreement.
[293] Article 4(2) of the DRTD.

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knowledge, all stakeholders must collaborate to ensure smooth and transparent negotiation for accessing and using indigenous knowledge and associated resources.[294] The UN DRTD also encourages states to enforce socio-economic reforms to eradicate community injustices. These reforms should promote participation and the realisation of fundamental human rights. As the protection of indigenous knowledge ensures the full enjoyment of human rights, this study argues that the involvement of indigenous communities in the decision-making process concerning indigenous knowledge ensures the realisation of economic rights.

The United Nations Declaration on the Rights of Indigenous People[295] is an international, non-binding human rights-centred instrument adopted to safeguard indigenous people's interests. It requires member states to design measures to implement the Declaration's objectives. Some of the critical aspects of the Declaration are explored to identify potential measures that can safeguard indigenous knowledge in the context of the AfCFTA Agreement.

Article 1 provides that indigenous people can enjoy all the fundamental rights recognised by the Universal Declaration of Human Rights, international human rights law, and the United Nations (UN) Charter. [296] The UN Charter is a peace-building instrument underscored by promoting fundamental human rights.[297] These fundamental rights include socio-economic rights.[298] This covers RTD, as highlighted in section 4.2 above. To support the above, article 55 of the UN Charter provides that the peace-building objective seeks to achieve the socio-economic development of the people.[299] It further provides that people are supposed to be respected and treated equally.[300]

UN instruments such as the International Covenant on Civil and Political Rights (ICCPR)[301] and the International Covenant on Economic, Social and Cultural Rights

[294] Such as indigenous people/ community, government departments/ officials, and private stakeholders.
[295] United Nations Declaration on the Rights of Indigenous People <UNDRIP_E_web.pdf> accessed 24 May 2024.
[296] See the Preamble to, and article 1 of the United Nations Charter <United Nations Charter (full text) | United Nations> accessed 23 May 2024. noted
[297] Article 1 of the United Nations Declaration on the Rights of Indigenous People.
[298] See the UN Charter.
[299] Article 55 of the UN Charter.
[300] Article 2 of the UN Charter.
[301] International Covenant on Civil and Political Rights <ccpr.pdf (ohchr.org)> accessed 23 May 2024.

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(ICESCR)[302] are other UN human rights instruments which affirm the RTD. The ICCPR provides that the right to self-determination entitles people to develop themselves socially, economically, culturally, and politically.[303] The same is provided by article 1 of the ICESCR. States must design technical and vocational guidance and training mechanisms, policy frameworks and activities to achieve this development.[304]

As indicated above, the right to pursue economic and cultural development activities in the UN framework aligns with the financial objectives of the AfCFTA Agreement read with the IP Protocol.[305] This is the basis for the inclusion of the indigenous communities in the trading system for as long as their indigenous knowledge is the subject matter. Gatekeeping the indigenous communities from using their knowledge for revenue generation would, therefore, be against the tenets of this declaration.

Furthermore, article 4 affirms the independence of indigenous people in the affairs concerning them.[306] Therefore, they should be allowed to handle even the financial affairs of their indigenous knowledge.[307] Article 8 provides that indigenous people should not be subjected to anything detrimental to their culture.[308] Arguably, this provision confirms the duty to ensure the sustainability of the indigenous resources. The provisions of article 13 are also relevant for this study in that they grant indigenous people the right to collect, use, transition, and transfer their traditions, cultures and intellectual philosophies to future generations without losing their status concerning the same.[309]

Furthermore, article 18 contains the inclusivity clause for indigenous communities. It provides that indigenous people should be included in all the decision-making processes, where the terms thereof affect indigenous people's rights.[310] This inclusivity would be engaging with the representatives chosen by respective indigenous communities.[311] Where institutions for decision-making processes have

[302] International Covenant on Economic, Social and Cultural Rights <Microsoft Word - Document1 (ohchr.org)> accessed 23 May 2024.
[303] Article 1 of the ICCPR.
[304] Article 6 of the ICESCR.
[305] See article 3 of the United Nations Declaration on the Rights of Indigenous People.
[306] Article 4 of the United Nations Declaration on the Rights of Indigenous People.
[307] *Ibid*.
[308] Article 8 of the United Nations Declaration on the Rights of Indigenous People.
[309] Article 13(1) of the United Nations Declaration on the Rights of Indigenous People.
[310] Article 18 of the United Nations Declaration on the Rights of Indigenous People.
[311] *Ibid*.

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already been established, member states must develop them.[312] This is practical as far as indigenous knowledge is concerned, in that it is living. Its changing nature requires an adaptation of the management/regulation rules. Therefore, designing a flexible protective system would adequately ensure the safeguarding of indigenous knowledge, thus achieving the economic development objectives of the AfCFTA Agreement.

In developing rules of procedure on issues like ABS, states (and other third parties) would have to consult and, in good faith, cooperate with indigenous communities through their representatives to obtain FPIC and adopt and implement their legislative and policy framework.[313] Having briefly indicated the value of indigenous medicinal plant resources, article 24 is the basis for the indigenous people's claim over genetic resources. It provides that indigenous people are entitled to their indigenous medicinal resources, which entitles them to implement conservation methods to ensure the sustainability of these resources.[314]

An excellent protective system for indigenous knowledge should outline the principles of ownership of indigenous knowledge. This is because part of the criticisms of indigenous knowledge being an IPR revolves around the principle of ownership. It is provided that the right to land and resources traditionally owned entitles or grants ownership rights to these indigenous groups.[315] Furthermore, article 31 pronounces various indigenous knowledge-based resources that indigenous people have and should be protected.[316]

In this chapter, I argue that the UN Declaration provides standards adequate for safeguarding indigenous knowledge in the context of the AfCFTA Agreement. This ranges from the need to create a system that promotes indigenous culture and identity to ensure the inclusivity of indigenous communities in the decision-making processes.

[312] n 310 above.
[313] Article 19 of the United Nations Declaration on the Rights of Indigenous People.
[314] Article 24 of the United Nations Declaration on the Rights of Indigenous People.
[315] Article 26 of the United Nations Declaration on the Rights of Indigenous People.
[316] These are "human and genetic resources, seeds, medicines, knowledge of the properties of fauna and flora, oral traditions, literatures, designs, sports and traditional games and visual and performing arts." See article 31 of the United Nations Declaration on the Rights of Indigenous People.

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The following section explores The concept of sustainable development and situates indigenous knowledge in the discourse as a tool to achieve objectives of the AU's Agenda 2063.

2.5.3. Indigenous knowledge as a tool for sustainable economic development: An African development perspective

2.5.3.1. The concept of sustainable development

As this study is a quest for African economic development, it is essential to outline sustainable development in Africa. Pursuing this concept paves the way for understanding what indigenous knowledge as a sustainable commodity can do for Africa. It would be incomprehensible to discuss sustainable development in a context that promotes world capitalist movements that have appropriated Africa's resources without benefiting Africa and her children. Therefore, if anything must be used as a sustainable economic development weapon, it must address the African community's social, economic, cultural, spiritual, and political aspects. As a result, social and African local perceptions of what would amount to sustainable development are essential for theorising this development.

In terms of the Brundtland Report of the World Commission on Environment and Development (WCED), sustainable development refers to changing socio-economic and geopolitical situations that align with the needs of that time without prejudicing future generations from benefiting from the development article.[317] It is sustainable if such development addresses the issues faced by many people. Therefore, sustainable economic growth must focus on improving people's financial status, environmental conservation, and eradicating poverty.[318]

This study argues that sustainable development requires such high-quality growth. That is, it must be equitable in its form among all people. To achieve this, states should improve how they distribute their capital, improve income distribution, and reduce vulnerability. Sustainable development concerns competition among people regarding their access to resources rather than the relationship between people and their

[317] United Nations, 'Our Common Future' (1987) Report of the World Commission on Environment and Development 1<1987: Brundtland Report (admin.ch)> accessed 17 September 2023.
[318] United Nations, 'Our Common Future' 41.

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environment on an individual–nature basis.[319] Therefore, even if something is done to save people from poverty, it cannot amount to sustainable development if it degrades natural resources.

Sustainable development in Africa is hindered mainly by issues related to the legal protection of African resources, resulting in state, elite domestic, and other external accomplices appropriating these resources without considering the adverse effects.[320] The inability of most poor African people to invest in these resources also contributes to the continued obstacle to achieving sustainable development.[321] As a result, scholarship on sustainable development is focused on local people being in control of their resources.[322] Having outlined this concept, it is essential to conceptualise it in the context of indigenous knowledge as a resource the AU has identified as a commodity for Africa's economic development.[323]

2.5.3.2. Indigenous knowledge in the sustainable economic development discourse

AU's Agenda 2063 has several aspirations that the AU seeks to achieve.[324] All these aspirations resemble the AU's quest for a higher standard of living for all African people. For this study, aspirations 1, 5 and 6 are relevant. Therefore, this section discusses indigenous knowledge and its role in sustainable economic development, promoting cultural identity, and Afrocentric perceptions. Sustainable economic development is a priority area aligned with the UN sustainable development goals.[325] Agenda 2063 then led to the drafting of the AfCFTA Agreement. This discussion of

[319] Michael Horowitz, 'Anthropology and the New Development Agenda' (1988) 6(1) Development Anthropology Network 1.
[320] George Dei, 'Sustainable Development in the African Context: Revisiting Some Theoretical and Methodological Issues' (1993) 18(2) Africa Development 97.
[321] *Ibid*.
[322] George Dei, 'Sustainable Development in the African Context: Revisiting Some Theoretical and Methodological Issues' 101-102.
[323] That is, the inclusion of indigenous knowledge in the IP Protocol.
[324] 1) *Africa that is successful, inclusive and seeks to achieve sustainable development*; 2) an *integrated and politically unified Africa, with Pan-Africanism and Renaissance values; 3) Good governance, promotion of democracy, human rights, rule of law and justice; (4) peaceful and secure Africa; 5) n Africa with a strong cultural identity, common heritage, shared values and ethics; (6) a development that is people-centric and (7) creation of a multi-relational Africa. See the African Union, 'O*ur Aspirations for the Africa We Want' <Our Aspirations for the Africa We Want | African Union (au.int) > accessed 11 October 2023.
[325] The African Union, 'Linking Agenda 2063 and the SDGs' <Linking Agenda 2063 and the SDGs | African Union (au.int)> accessed 17 September 2063.

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indigenous knowledge and sustainable development paves the way for deliberation on whether indigenous knowledge should be safeguarded in the context of the AfCFTA.[326]

The AU seeks to create a prosperous Africa by ensuring growth for all and sustainable development.[327] Rural indigenous communities have used indigenous knowledge as a tool for development for several years.[328] Therefore, transferring its use to the modern global context should propel economic development for indigenous people in indigenous communities. This is because indigenous knowledge benefits not only the communities it emanates from but also scientists and other stakeholders seeking to improve situational conditions.[329]

Indigenous knowledge includes information passed from generation to generation, unwritten, yet with potential, including, but not limited to, commercialisation of the knowledge.[330] Economic development in Africa may be related to the concept of Africapitalism, a term Eleumelu developed to channel the discourse of African economic independence.[331] He believed that economic growth in Africa lies within the right business and political approaches. Investments were found to be the main driving force through which Africa can achieve sustainable economic development.[332]

Indigenous knowledge has been eroded based on the perception that it has a low-quality value. However, the surge of academic discourse on indigenous knowledge is usually associated with discovering the value of indigenous knowledge in society.[333] Indigenous knowledge is divided into different fields: property management,

[326] Chapter three explores the propriety of safeguarding indigenous knowledge through trade agreements, especially the AfCFTA Agreement.
[327] Aspiration one of the AU.
[328] Henrietta Onwueggbuzie *et al*, 'Indigenous knowledge, an unexploited source for sustainable development: An opportunity for Africapitalism' (2022) 8(2) Journal of Entrepreneurship and Innovation in Emerging Economies 244.
[329] *Ibid*.
[330] Michael Warren, Indigenous knowledge, biodiversity conservation and development' (1992) International Conference on Conservation of Biodiversity in Africa: Local Initiatives and Institutional Roles, Kenya.
[331] Kenneth Amaeshi and Uwafiokun Udemudia, 'Africapitalism: A management idea for business I Africa?' (2015) 1(2) African Journal of Management 210.
[332] See Rita Kiki Edozie, 'The philosophy of African economic humanism: Ubuntu and Afri-Capitalism as case studies' in *"Pan" Africa rising* (Palgrave Macmillan 2017) 79.
[333] Catherine Hoopers, 'Indigenous knowledge and the integration of knowledge systems' in *Indigenous knowledge and the integration of knowledge systems* (Towards a Philosophy of Articulation 2002).

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healthcare, decision-making strategies, marketing, agriculture, education, environmental issues, and vast industrial knowledge.[334]

However, environmental conservation has been witnessed in most parts of Africa, where rural communities have been involved in different survival mechanisms, including preserving natural resources.[335] Building on the existing knowledge of how indigenous knowledge has been used in the past can also offer opportunities for economic development if there is an adequate understanding of indigenous knowledge-based survival methods.[336]

When considered an intellectual resource, indigenous knowledge would be preserved, fuelling the addition of social value to the knowledge.[337] This argument resonates with the objectives of this study, where intellectual property regimes are explored for their viability in safeguarding indigenous knowledge for economic development in Africa – an AfCFTA Agreement's goal. Solutions emanating from indigenous knowledge tend to be cheaper than solutions from other knowledge systems.[338] This is because readily available resources are used in most cases.[339] As a result, this knowledge and resources must be conserved.

Using indigenous knowledge for innovation is the most efficient way of developing techniques that speak to the people, as it includes knowledge of people, culture, and environmental issues, making it more appropriate to address challenges faced by the same people of different cultures and living in their respective environments.[340] Indigenous people have been using the knowledge developed in these communities

[334] Louise Genier, *Working With indigenous knowledge: A guide for researchers* (IDRC 1998).
[335] Siriginidi Subba Rao, 'Indigenous knowledge organization: An Indian scenario' (2006) 26(3) International Journal of Information Management 224.
[336] Anil Gupta, 'Framework for rewarding indigenous knowledge in developing countries: Value chain for grassroots innovations' (2001) 3 WTO Expert Committee.
[337] Andre Lalonde, *African indigenous knowledge and its relevance to sustainable development*. *Traditional ecological knowledge: concepts and cases* (Canadian Museum of Nature 1993).
[338] Raghunath Anant Mashelkar, The Indian innovation system, Development outreach (World Bank 2001). See also AK Gupta *et al*, 'Mobilizing grassroots' technological innovations and traditional knowledge, values and institutions: articulating social and ethical capital' (2003) 35(9) Futures 975-987.
[339] See Mashelkar (n 298) above. Consider the Neem tree which naturally grows in India and Africa, with pesticide properties. This tree was used amongst other uses, to control pests in agricultural establishments. This tree use of neem plant has been eroded and replaced by more expensive pesticides, while people could use it at a cheaper cost.
[340] Shilp Verma *et al*, 'Pepsee systems: grassroots innovation under groundwater stress' (2004) 6(4) Water Policy 303.

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to sustain their everyday lives, including conserving natural resources.[341] Therefore, collecting vast indigenous knowledge is a treasure in the current era.

Having discussed the above, it is safe to argue that indigenous knowledge in the sustainable development quest is concerned with a) the conservation of genetic and natural resources, which is a management plan that has been developed over years of practice; b) participation of indigenous knowledge in different fields, such as planning, design, execution of the plans, and evaluation of progress made; and c) the integration of indigenous knowledge with whatever knowledge systems are available to address the challenges faced by the African community.

The practical examples below indicate how indigenous knowledge is used for everyday needs, and it could be taken to larger markets to generate revenue, contributing to sustainable economic development.

South Africa has many ways in which indigenous people live, create, trade, and communicate with each other, which can still benefit today's generations. The San people in South Africa lived and hunted for many years and could track animals using various indigenous methods passed from generation to generation.[342] These methods can still be used to determine the location of animals at risk. The San people also used traditional methods to recycle their food.[343] The creation of jewellery and artistic materials by these indigenous people implies the inventiveness of African indigenous people, a kind of knowledge that deserves protection.

Another area of indigenous knowledge is medicine.[344] The Zigua and Samba people in Tanzania and the Zulu people from South Africa have used natural herbs as contraceptives for many years.[345] This is an example of how indigenous knowledge is helpful for public health. If such methods were to be restored, used, and passed from generation to generation, they would contribute to the sustainable economic development of the continent, as costs would be cut in terms of buying and using

[341] Mohammad Safakish, 'The role of indigenous knowledge in sustainable development in rural economic development' (2015) 5(9) Journal of Applied Environmental and Biological Sciences 285.
[342] Jacob Mokhutso, The impact of African indigenous knowledge system on healthcare system in South Africa: The Covid-19 perspective' (2021) 19(1) Gender and Behavior 1.
[343] Gloria Eneagwala, Indigenous Knowledge and the Disciples (Sense Publishers 2014).
[344] Jacob Mokhutso, The impact of African indigenous knowledge system on healthcare system in South Africa: The Covid-19 perspective' 10.
[345] *Ibid*.

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Western contraceptives. The outbreak of Covid-19 has seen many people resort to natural medicines to curb the spread and effects of the virus. This is the case even in Africa, and specifically in South Africa.

An indigenous knowledge system can also be seen in applied chemistry.[346] It has been reported that African indigenous people are involved in the chemistry of making fire. Emeagwali further outlines that 100,000 years ago, indigenous people in the Cape created paint by grinding iron oxide and mixing it with animal fat and charcoal. These were combined by using bones, and paint was made.

The examples of the rooibos and *Hoodia* plants discussed above are also practical examples of how such knowledge has economic viability and could be used to develop the continent. Therefore, it is argued that there is a need to look back at African ways of doing things, as answers are embedded in various indigenous knowledge systems.

Furthermore, indigenous knowledge as a sustainable development tool contributes to promoting the cultural identity of indigenous communities. If a particular aspect of indigenous knowledge is sustainably used, the cultural identity of a respective indigenous community would be encouraged. This resonates with Agenda 2063 aspiration number five, where the AU seeks to create an Africa with cultural heritage and identity, where the citizens share values and ethics. The success of Africa and the creation of sustainable development depend on her emphasis on promoting cultural identity. While this study aims to safeguard indigenous knowledge in the context of the AfCFTA Agreement, it also promotes the cultural identities of different indigenous communities involved in the proud use of indigenous knowledge in their daily lives.

The AU also seeks to see Africa focused on people and their views.[347] Giving indigenous African people a chance to decide on issues affecting their indigenous knowledge is a recipe for sustainable development. The indigenous people have had primary information on how they have used and sustained their indigenous knowledge for years. Therefore, this study's approach to considering the African experiences in developing protective measures for indigenous knowledge is justified.

[346] Jacob Mokhutso, The impact of African indigenous knowledge system on healthcare system in South Africa: The Covid-19 perspective' 12.
[347] AU's aspiration six.

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This section explored sustainable development, inclusivity and people-centric African aspirations of the AU as embedded in the 2063 Agenda. Indigenous knowledge as a tool for development creates an opportunity for sustainability. This may be made possible by codifying indigenous knowledge and promoting the conservation of natural resources and indigenous knowledge-based tangible articles.

2.6. Conclusion

This chapter focused on the theoretical perspectives on safeguarding indigenous knowledge in the context of the AfCFTA Agreement.[348] Before delving further into the theoretical perspectives, it attempted to settle the definitional discrepancies concerning what constitutes "indigenous knowledge", and a working definition was adopted. It explored the concerns of indigenous people about the misappropriation of indigenous knowledge through the theory of biopiracy. In conjunction with the FPIC theory, the biopiracy theory states that indigenous communities must benefit from commercialising indigenous knowledge. This includes their inclusion in the decision-making processes as far as indigenous knowledge is concerned.

Since the AU aims to safeguard indigenous knowledge through intellectual property regimes, this study explored intellectual property rights protection theories. It was outlined that not all theories of intellectual property rights protection apply to indigenous knowledge, primarily based on its nature, where indigenous knowledge may be said to be a community right compared to the traditional IPR that are individualistic. An argument was advanced that the African people's concerns, needs, and interests should be prioritised when using the intellectual property regime. Therefore, when applying intellectual property rights' theories of protection, Western ideologies must be disregarded, not entirely, but as far as they do not serve the interests of the African community.

[348] The AfCFTA Agreement provides for the need to safeguard indigenous knowledge as a tool for achieving the 2063 Agenda of the AU, to see an economically developed Africa. The theories discussed here outline the basis for indigenous knowledge as an economic tool. Since this knowledge must also benefit the indigenous communities, theoretical perspectives were explored, whereupon principles of benefit sharing, prior informed consent were established. These theories hints on the approaches that may be adopted to safeguard indigenous knowledge in the context of the AfCFTA Agreement, as the primary aim of this study.

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The economic theory that justifies the commercialisation of indigenous knowledge was discussed in line with the sustainable economic development goal of the AU, wherein as much as the goal is to see an economically developed Africa by 2063, the resources must be used with caution. There must be respect for the resources that Africa has to offer, which resources have now formed part of the indigenous knowledge systems, the majority of which are mainly natural and genetic resources. Planning, design, and management skills must be documented to ensure future generations' continued reference, contributing to Africa's sustainable economic development. The last part of the chapter presented practical examples in which indigenous knowledge may be used as a financial tool. An argument made is that reference to African values, knowledge, and ways of doing things has the prospect of economically developing Africa, thereby achieving the AU's objective in the AfCFTA Agreement.

Having outlined different theoretical and conceptual bases for safeguarding indigenous knowledge, the next chapter explores the discourse on the viability of free trade agreements in preserving indigenous knowledge. It explores the debate about treating indigenous knowledge as an IPR. This approach responds to the study's objective of determining whether the AfCFTA Agreement adequately safeguards indigenous knowledge systems.

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CHAPTER THREE

THE PROPRIETY OF USING TRADE AGREEMENTS TO SAFEGUARD INDIGENOUS KNOWLEDGE: FOCUS ON THE AfCFTA PROTOCOL ON INTELLECTUAL PROPERTY RIGHTS

3.1. Introduction

Safeguarding IPR through trade agreements is one of the most critical aspects of emerging global trade.[1] For this reason, trade agreements exist to propel innovation and development in world economies.[2] The Agreement Establishing the Free Continental Trade Area (AfCFTA Agreement) is one of the regional free trade agreements that seeks to foster African economic development by protecting IPR, including indigenous knowledge.[3] This chapter explores the propriety of using trade agreements, such as the AfCFTA agreement to safeguard IK. To achieve this objective, this chapter resolves the question whether or not it is proper to safeguard IK through trade agreements. In this regard, explores and examines the development, composition, and the support structure of trade agreements, to justify the propriety of using trade agreements, particularly the IP Protocol to the Agreement Establishing the African Continental Free Trade Area (IP Protocol), to protect indigenous knowledge.

3.2. Regional integration in Africa: Regional economic communities (REC) as the building blocks for free trade

3.2.1. Introduction

With Africa dominated by economic and political instability, financial integration has become essential for fostering development. To address this, the World Trade Organization (WTO) framework on international trade provides various exceptions to the global trade standards.[4] This section discusses the concept of regional economic

[1] See Canals Claudia et al, 'Intellectual property-related preferential trade agreements and offshoring to developing countries' (2023) Review of International Economics <[PDF] Intellectual property-related preferential trade agreements and US offshoring to developing countries | Semantic Scholar> accessed 21 February 2024.
[2] Canals Claudia et al, 'Intellectual property-related preferential trade agreements and offshoring to developing countries' 4-5.
[3] See article 1(b) read with article 18 of the IP Protocol.
[4] General, security exceptions, regional trade, and emergency exceptions.

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integration as an exception to the international trade standards of the WTO. It determines whether the African regional trade framework provides adequate mechanisms to safeguard indigenous knowledge. Asante defines economic integration as removing trade barriers and uniting two or more parties through regional trade arrangements.[5] Context-wise, the definition covers the African region, as integration is sought to be achieved at the African regional level. This is achieved through entering into specific agreements.

While the term regional trade agreement has been used to describe the agreements that specific regional members enter in deviation from the WTO law of international trade, these agreements have also been referred to as preferential trade agreements (PTA). However, as the WTO has continued to refer to these as regional trade agreements (RTA),[6] this study continues to use the term, and where it is referred to as PTA, the exact meaning is attributed to such an assertion.

It must be noted that two important frameworks, Article V of the General Agreement on Trade in Services (GATS) and the Enabling Clause of the General Agreement on Tariffs and Trade (GATT),[7] forms the basis for regional integration. The discussion below reveals how this is made possible by these frameworks.

3.2.2. The proliferation of regional trade agreements in the REC

The proliferation of RTA in the African REC began in the 1900s and has since gained momentum.[8] As of May 2024, 371 global RTA had been forced between the WTO members.[9] This is ten more than the RTA in force as of January 2024.[10] The AfCFTA Agreement is one of the agreements that implements African regional integration. One

[5] Samuel Asante, *Regionalisation and Africa's Development: Expectations, Reality and Challenges* (Macmillan 1997).
[6] Peter van den Bossche and Warner Zdouc, *The law and policy of the World Trade Organisation* (5th Ed) (Cambridge University Press 2022).
[7] Decision on Differential and More Favourable Treatment, Reciprocity and Fuller Participation of Developing Countries, which was adopted in 1979 under the GATT <Handelt es sich bei der Exportware um ein schweizerisches Urprodukt im Sinne des EFTA Abkommens, des bilateralen Abkommens Sch> accessed 10 November 2024.
[8] Mitsuo Matsushita, 'Proliferation of Free Trade Agreements and Development Perspectives' (2010) Law and Development Institute Inaugural Conference <FTA under WTO (lawanddevelopment.net)> accessed 07 May 2024.
[9] World Trade Organization, 'Regional Trade Agreements' World Trade Organisation Database <WTO | Regional Trade Agreements gateway> accessed 07 May 2024.
[10] *Ibid*. This is indicative of the fact that the number of RTAs notified to the WTO keeps on increasing over time, supporting a rapid proliferation of trade agreements.

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characteristic of these agreements is that they enable member states to agree on preferential terms that are more favourable to each other than to other non-member states. Although these agreements are inconsistent with the most favoured nation (MFN) principle, first, article V of the GATS allows for regional economic integration.

Article V(1) of the GATS provides that member states can enter into preferential trade agreements aimed at liberalising trade in their respective jurisdictions. Such agreements must eliminate and/ or reduce discrimination, thus eliminating trade barriers.[11] Additionally, article V(3) allows flexibility in designing measures between parties, thus promoting economic integration of developing or least developed economies.

Article V(6) further mandates member states to not to impose any trade barriers against non-member states,[12] while article V(7) requires the member states to notify Council for Trade in Services of such any agreements entered into,[13] which then allows monitoring and evaluation of the functionary nature of the member states. These provisions depict the stance the GATS has in promoting regional economic integration.

Van den Bossche and Zdouc posit that trade liberalisation can be achieved quickly if nations agree to their objectives and enter into agreements that best suit them.[14] They further submit that this economic achievement at regional levels may then be a step towards trade liberalisation on a global scale.[15] Regional integration can also increase the concerned parties' economic growth, encouraging international trade between the concerned parties and other global trading partners.[16] From the economic theory perspective, RTA may ensure an increased import of goods from more efficient trading partners, increasing trade between the importing and exporting parties.[17]

Other than economic reasons, nations may explore regional integration for political reasons. Van den Bosche and Zdouc refer to the EU regional integration, where the

[11] Article V(1) of the GATS.
[12] Article V(6) of the GATS.
[13] Article V(7) of the GATS.
[14] Peter van den Bossche and Warner Zdouc 5th ed (2022) 733.
[15] *Ibid*.
[16] n 14 above.
[17] World Trade Organization, 'Trade Report 2011, 'WTO and Preferential Trade Agreements. The WTO and preferential trade agreements: From co-existence to coherence' 9 <world_trade_report11_e.pdf (wto.org)> accessed 15 April 2024.

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European nations created an agreement that successfully prevented a war.[18] Further reference is made to the MERCOSUR, a customs union that was entered into between Argentina, Paraguay, Brazil, and Uruguay to strengthen democracy and governance in these countries.[19]

One of the critical issues is recognising the evolved design of RTA, where the coverage is no longer just the tariffs but also an investment, intellectual property, competition, and procurement.[20] Similarly, the Organisation for Economic Co-operation and Development (OECD) has noted the development of RTA, whose scope covers the movement of people, investment, intellectual property, e-commerce, and anti-corruption.[21] The AfCFTA Agreement is an example of this contemporary RTA.[22]

Additionally, Article 1 of the Enabling Clause, a decision taken under GATT in 1979, permits developed member states to offer preferential treatment to developing or least developed member states, and still not be in violation of the MFN principle.[23] It also allows developing and least develop, member countries to agree on preferential treatment with each other.[24] Under the Enabling Clause, developing countries/ member states do not need to eliminate all trade barriers, thus, granting them an autonomy to dictate how they can promote economic integration.[25] Developing countries are able to structure trade terms according to their needs.

Regional integration in Africa can be traced back to the pre-independence era, which sought to reconstruct African affairs to meet the needs of African society.[26] This era saw various esteemed African leaders, such as Julius Nyerere and Kwame Nkrumah,

[18] Peter van den Bossche and Warner Zdouc 5th ed (2022) 734.
[19] See MERCOSUR at <MERCOSUR - Official website> accessed 12 November 2024.
[20] World Bank Brief, 'Regional Trade Agreements (5 April 2018) <www.worldbank.org/en/topic/regional-integration/brief/regional-trade-agreements> accessed 15 April 2024.
[21] Organisation for Economic Co-operation and Development, 'Regional trade agreements are evolving – Why does it matter?' <www.oecd.org/trade/topics/regional-trade-agreements/> accessed 15 April 2024.
[22] They are sometimes referred to deep integration agreements. This is not to say that RTA concept is no longer useful. Rather, it is just to indicate that that they go deeper into issues which were normally covered in older RTAs and other international trade agreements such as the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement).
[23] Article 1 of the Enabling Clause.
[24] Article 2(a) of the Enabling Clause.
[25] Article 5 of the Enabling Clause.
[26] Babatunde Fagbayibo, 'A Politico-legal Framework for Integration in Africa: Exploring the Attainability of a Supranational African Union' (PhD thesis, University of Pretoria 2010).

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engaging in numerous conferences to establish a specific African integration model.[27] The 1958 conference led to the division of African states with distinct political stances, namely, the Casablanca and Monrovia group of nations.[28]

To arrive at a decision, the two groups had to compromise, and, therefore, the Organisation of African Unity, later the AU, was formed.[29] Furthermore, the West African Airways Corporation (WAAC) and the West African Currency Board (WACB) are some of the African subregional groupings established to achieve economic integration in Africa.[30]

With so much history of economic integration, these groupings later developed into REC and arguably have contributed and continue to economic development. The Abuja Treaty provides for the creation of REC and the strengthening of existing REC; addressing regional trade barriers by 1999; creating new REC and strengthening existing REC by 2007; establishing accessible trade areas and customs unions by 2017; coordinating tariff systems by 2019; establishing policies for a common market by 2023; creating the African Central Bank; and establishing the Pan-African Parliament by 2028.[31]

As discussed below, 8 of the 14 RECs are recognised by the AU as integral aspects of the African economic integration goal.[32] The AU highlights that RECs are essential for coordinating member states' interests, such as governance, human rights, and security.[33] These RECs have allowed the formation of various instruments concerned with African development. This subsection focuses on different legal instruments for the protection of IPR as a tool for development.

[27] Collins Ajibo et al, 'Regional Economic Communities as the Building Blocks of the African Continental Free Trade Area Agreement' (2021) 18(4) Transnational Dispute Management 1.
[28] Olufemi Amao, *African Union Law: The Emergence of a Sui Generis Legal Order* (Routledge 2018).
[29] Olufemi Amao (2018) 13.
[30] Mike Obadan, 'Introduction' in Ladi Hamalai and Mike Obadan (eds), 40 Years of ECOWAS (1975–2015) (NILS 2015) 26.
[31] See the Abuja Treaty.
[32] See Eghosa Ekhator, 'International Environmental Governance: A Case for Sub-regional Judiciaries in Africa' in Michael Addaney and Ademola Jegede (eds), *Human Rights and the Environment under African Union Law* (Palgrave Macmillan 2020) 209.
[33] See generally, the African Union Handbook (African Union Commission and New Zealand Ministry of Foreign Affairs and Trade 2020).

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3.2.3. The REC and economic integration

To achieve regional economic integration, RECs and free trade areas are recognised as integral aspects of development. RECs may be described as the regional groupings concerned with regional integration. These groupings have been established in terms of various legal instruments. The most recent is the Treaty Establishing the African Economic Communities (Abuja Treaty). The Abuja Treaty, established in 1991 and entered into force in 1994, is one of the most successful treaty laws, with more than 50 of the 55 African states having subscribed to it.[34]

The Abuja Treaty provides a framework for establishing the African Economic Community (AEC).[35] Shumba argues that the Abuja Treaty is the supreme law on the African regional economic integration agenda.[36] This is because its framework propels socio-economic development in Africa.[37] Drawing from the vision of the AU, the Abuja Treaty promises economic integration.[38] Furthermore, it embraces the use of REC to establish integration in Africa.[39]

The Abuja Treaty also seeks to establish continental free trade areas and free FTA, liberating African regional trade.[40] In its objectives to establish and coordinate activities in the African region, the Abuja Treaty establishes and strengthens existing REC and regulates these groupings to achieve economic integration, among other objectives.[41] Instead of consolidating FTA within individual REC, a continental FTA was established – the AfCFTA Agreement.[42] In confirmation, articles 4, 6(2), 28, and 88 of the Abuja Treaty refer to the REC as the building blocks for African economic integration.

In the expansion of the scope of REC, article 1 of the Protocol on Relations Between the African Union and the Regional Economic Communities, 2008,[43] defines RECs as

[34] Kyu Deug Hwang, 'Some Reflections on African Development Strategies in the 21st Century: From the LPA to NEPAD' (2009) 16(2) Journal of International and Area Studies 130.
[35] Preamble to the Abuja Treaty.
[36] Willie Shumba, 'Towards the African Economic Community: Legal and Historical Perspectives' (2023) 26 Potchefstroom Electronic Law Journal 1– DOI <http://dx.doi.org/10.17159/1727-3781/2023/v26i0a15609> accessed 16 April 2024,
[37] Article 4(1) of the Abuja Treaty.
[38] See Preamble to, and Article 4(1) of the Abuja Treaty.
[39] Article 1(1)(d) of the Abuja Treaty.
[40] Article 4(2)(d) of the Abuja Treaty.
[41] Articles 4(2) and 28 of the Abuja Treaty.
[42] Willie Shumba, 'Towards the African Economic Community: Legal and Historical Perspectives' 8.
[43] Hereafter, the Protocol on Relations Between AU and REC.

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the African regional groupings established as institutions to achieve economic and social goals.[44] Therefore, the REC is likely established to achieve socio-economic objectives in the African region. The AU recognises the following REC as the pillars of African economic integration: the Arab Maghreb Union (AMU), the Economic Community of Central African States (ECCAS), the Common Market for Eastern and Southern Africa (COMESA), the Community of Sahel-Saharan States (CEN-SAD), the East African Community (EAC), the Economic Community of West African States (ECOWAS), the Southern African Development Community (SADC), and the Inter-Governmental Authority on Development (IGAD).[45]

The AfCFTA Agreement recognises the REC as the bedrock/building blocks for achieving African economic integration. The Preamble to the AfCFTA Agreement provides that REC are necessary to establish a continental free trade area.[46] Furthermore, article 19(2) of the AfCFTA Agreement provides that REC member states to the AfCFTA Agreement are to retain their higher levels of economic integration and continue to carry out their duties in the AfCFTA Agreement's context. In addition, Article 5 of the Agreement emphasises the principle of reciprocity. It requires the AfCFTA to be a member state driven by the FTA of REC, which serves as a building block.[47] This indicates the REC's critical role in realising the AfCFTA Agreement's objectives.

The discussion below expands on the role of REC in propelling African economic integration. In no particular order, this section explores some of these RECs. It determines their role in protecting indigenous knowledge as one of the ways to ensure economic integration in Africa.

3.2.3.1. The Southern African Development Community

Comprised of 16 southern African countries,[48] the SADC aims to integrate southern Africa economically through various aspects. Contextually, the SADC does not explicitly mention indigenous knowledge as one of the aspects of achieving economic

[44] Article 1 of the Protocol on Relations Between AU and REC.
[45] Willie Shumba, 'Towards the African Economic Community: Legal and Historical Perspectives' 13.
[46] Preamble to the AfCFTA Agreement.
[47] See Article 5(a), (b) and (i) of the AfCFTA Agreement.
[48] Angola, Botswana, Comoros, DR Congo, Eswatini, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Naminia, Seychelles, South Africa, Tanzania, Zambia and Zimbabwe.

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integration. However, its core areas for economic integration guide the SADC's stance on protecting indigenous knowledge.[49] Article 12(2)(a) provides that the focus of the SADC Treaty is "natural resources".[50] As this study has previously indicated throughout Chapter Two, indigenous knowledge comprises various aspects, including natural/genetic resources, and an inference may be drawn from this provision to include indigenous knowledge.

Article 21(3)(a) provides that the area of focus is "human development, information, and culture".[51] Again, this study has outlined throughout chapters one and two that indigenous knowledge is part of the cultural identity of indigenous knowledge. It is argued that indigenous knowledge may be accommodated in this provision. Although indigenous knowledge is not explicitly mentioned, one can draw inferences from the cooperation instrument, accommodating the understanding. For example, more than 25 protocols are in force in the SADC region.[52]

Some of these protocols mention phrases like "cultural heritage" as one of the integral aspects of socio-economic development.[53] Article 11 provides that member states are to cooperate on socio-cultural aspects of development, which shall include formulating socio-cultural policies and creating an environment where the objective of the SADC can be achieved.[54] It recognises culture in the development programmes, which includes information exchange between concerned stakeholders.[55] As previously argued, the reference to culture as an integral part of socio-economic development can be inferred to accommodate indigenous knowledge. The standard of recognition and protection of culture may also be afforded to indigenous knowledge.

Furthermore, article 12 states that member states are to design policies promoting indigenous knowledge to foster socio-economic development.[56] This would be

[49] See articles 12 and 21 of the Consolidated Text of the Treaty of the Southern African Development Community.
[50] Article 12(2)(a) Consolidated Text of the Treaty of the Southern African Development Community.
[51] Article 21(3)(a) Consolidated Text of the Treaty of the Southern African Development Community.
[52] The Southern African Development Community, 'SADC Protocols' SADC Protocols | SADC <SADC Protocols | SADC> accessed 18 April 2024.
[53] See for example, Articles 11, 12 and 17 of the Southern African Development Community Protocol on Culture, Information and Sport, 2006.
[54] Article 11 of the Southern African Development Community Protocol on Culture, Information and Sport, 2006.
[55] *Ibid*.
[56] Article 12(1) of the Southern African Development Community Protocol on Culture, Information and Sport, 2006.

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achieved through implementing learning mechanisms that facilitate the learning and use of these indigenous languages.[57] Member states may go as far as making indigenous languages a mode of instruction. They shall collaborate on implementing aids for individuals with impediments in using indigenous languages.[58] In addition, article 17 provides that member states are to collaborate on the development and dissemination of information,[59] which this study argues would also include information on indigenous aspects relevant to socio-economic development. Therefore, an inference drawn is that member states must collaborate on how indigenous knowledge may be shared among concerned stakeholders.

Article 2(h) of the Protocol on Science and Technology, 2008, provides that the Protocol seeks to acknowledge, develop, and stimulate the importance of indigenous knowledge systems and the transfer of technologies.[60] Although the Protocol may be Western-oriented, its recognition of indigenous knowledge is a positive step in protecting indigenous knowledge. One of the progressive provisions in the Protocol is paving the way for the recognition of the role played by custodians of technologies relevant to development.[61] Article 7(4) of the Protocol on Wildlife Conservation and Enforcement, 1999, provides that the relevant stakeholders should consider implementing indigenous mechanisms developed within the indigenous communities in the quest to enforce wildlife management mechanisms.[62]

The mechanisms to be implemented in this article require understanding and knowledge of indigenous wildlife management and conservation practices. Therefore, it may be argued that indigenous knowledge can be accommodated under the scope of this provision. Article 9(d), read with article 24 of the Protocol on Trade in the Southern African Development Community (SADC Trade Protocol), provides that member states are to adopt measures aimed at protecting IPR and preventing

[57] Article 12(2) of the Southern African Development Community Protocol on Culture, Information and Sport, 2006.
[58] Article 12(4) of the Southern African Development Community Protocol on Culture, Information and Sport, 2006.
[59] Article 17 of the Southern African Development Community Protocol on Culture, Information and Sport, 2006.
[60] Article 2(h) of the Protocol on Science and Technology, 2008.
[61] See Preamble to the Protocol on Science and Technology, 2008.
[62] Article 7(4) of the Protocol on Wildlife Conservation and Enforcement, 1999.

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unlawful trade and competition, which measures shall be in line with the WTO framework.[63]

3.2.3.2. The Economic Community of West African States

Comprised of 15 West African states,[64] ECOWAS objectives and principles are derived from the AU and AEC institutions. This community aims to modernise the living standards of its members through various socio-economic development initiatives. To achieve this, it emphasises unity, equal treatment, and collaboration.[65] The ECOWAS Treaty is the legal instrument on the constituency, governance, and functioning of the ECOWAS. This Treaty provides detailed information on the functionality of the ECOWAS, including the institutions responsible for ensuring the success of ECOWAS.[66]

The ECOWAS Treaty aims to integrate the ECOWAS members economically through trade and to foster relationships between member states and other African states.[67] It aims to support economic trade by establishing free trade areas.[68] Like other REC instruments, indigenous knowledge is not explicitly mentioned. Inferences are drawn from various articles that implicate it, for example, agriculture, science and industrial technology, natural resources, communications and tourism, commerce, and socio-cultural issues. Below is an indication of these provisions that may also cover indigenous knowledge.

Article 25 of the ECOWAS Treaty provides that member states are to cooperate on issues of agriculture,[69] with the sole purpose of integrating these members economically.[70] To achieve this, members must collaborate on agricultural techniques, such as crop rotation, breeding, and selection; water regulation; marine resources; pest control; harmonising farming policies and rules on pricing and trade; and ensuring

[63] ECOWAS, 'Member states' ECOWAS <Member States | Economic Community of West African States (ECOWAS)> accessed 07 May 2024.
[64] Benin, Burkina Faso, Cabo Verde, Cote D'Ivoire, Gambia, Ghana, Guinea, Guinea Bissau, Niger, Nigeria, Senegal, Siera Lione, and Togo.
[65] See Article 4 of the ECOWAS Revised Treaty (hereafter, the ECOWAS Treaty)
[66] See generally, the Economic Community of West African States Treaty (Revised Treaty).
[67] Article 3 of the ECOWAS Treaty.
[68] *Ibid*.
[69] See generally, Article 25(1) of the ECOWAS Treaty.
[70] See Article 25(1)(d) of the ECOWAS Treaty.

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food security. These aspects of agricultural practice can also be attributed to indigenous knowledge.

For example, Hart and Vorster outlined using indigenous knowledge in agriculture.[71] They indicated that Soghum farmers in KwaZulu-Natal have integrated an indigenous method of seed protection, where seeds are wrapped with cloth or grass before ripening and germination. This is done to protect the seeds from being eaten by birds.[72] An indigenous knowledge aspect, in this case, is the knowledge of seed proneness and the behaviour of birds towards a specific seed. They also outlined that farmers' at Nkwalini in KwaZulu-Natal increased their pumpkin size by pruning them before harvest.[73] Pruning involves the removal of a plant's parts, branches, leaves, or roots to boost its health, shape, and productivity.[74]

Another feature that could cover indigenous knowledge in the ECOWAS Treaty is the Technical Commissions aspect.[75] These commissions provide direction on how policies on technical issues should be designed. They are to function in agricultural production, science and technology, industry, biological diversity, telecommunication and transport, commerce, politics and governance, administration, and socio-cultural issues.[76] The Treaty provides that the ECOWAS should engage properly with technology and science,[77] reduce their reliance on Western technology and science,[78] and integrate indigenous technological and scientific mechanisms.[79] In using this science and technology, member states must engage in the long-term sharing of information (related to indigenous knowledge and practice), strengthened through establishing databases for protecting (this knowledge).[80]

Drawing inferences from articles 34, 31, and 62, where the respective institutions are responsible for promoting the tourism industry, which includes tourism products,[81] this

[71] Tim Hart and Ineke Vorster, *Indigenous Knowledge on the South African Landscape: Potentials for Agricultural Development* (The Human Sciences Research Council Press 2006).
[72] Tim Hart and Ineke Vorster (2006) 19-20.
[73] Tim Hart and Ineke Vorster (2006) 20.
[74] See Tim Hart and Ineke Vorster (2006) 20-21.
[75] See Articles 6(h) and 22 of the ECOWAS Treaty.
[76] See Article 22 of the ECOWAS Treaty.
[77] See Article 27(1)(b) of the ECOWAS Treaty.
[78] Articles 27(1)(c) of the ECOWAS Treaty.
[79] See Article 27(2)(c) of the ECOWAS Treaty.
[80] See Article 27(2)(e) of the ECOWAS Treaty.
[81] See Articles 34, 31 and 62 of the ECOWAS Treaty.

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promotion of tourism products would be expected to promote the socio-cultural and natural values of the region where they originate.[82] Articles 31(1) and 31(2)(a) refer to the use of better knowledge to discover the potential of various uses of natural resources in a specific region. This provision may be used to justify the inclusion of indigenous knowledge in the scope of the ECOWAS. Indigenous knowledge also exists in the scope of natural resources, emanating from a particular community and becoming a specific community's cultural identity. In this context, indigenous knowledge may be used to discover the use and importance of various natural resources, as indicated in the case study by Hart and Vorster.[83]

The TRIPS Policy and Guidelines for implementation were initiated by the West African Health Organization's Essential Medicines and Vaccines Programme to foster the integration of TRIPS flexibilities in the framework to promote access to medicines in the ECOWAS.[84] The Guidelines provide that the TRIPS member states are to implement domestic measures founded on the TRIPS flexibilities, allowing states to alter their IP laws to foster access to medicines. This presents an opportunity for the AfCFTA member states to change their IP laws to recognise and protect indigenous knowledge as one factor that plays an essential role in health issues. As discussed in Chapter Five, South Africa has already started to accommodate indigenous knowledge in its IP and *sui generis* framework. Arguably, these guidelines are relevant for accommodating indigenous knowledge in the ECOWAS IP framework.

Although the ECOWAS framework does not explicitly mention indigenous knowledge and indigenous systems, inferences from its focus over the years may justify its accommodation of indigenous knowledge. Of the many objectives it seeks to achieve, the ECOWAS framework aims to boost trade and access to medicines in the African region, as later discussed in this section. This can be achieved by protecting

[82] *Ibid*.
[83] n 81 above.
[84] See West African Health Organization' Essential Medicines and Vaccines programme, 'Development of a Harmonised TRIPS Policy for Adoption by ECOWAS Member States that Employ TRIPS Flexibilities to Improve Access to Medicines in the Region' (2013) WAHO/TECHNICAL DOCUMENT-31.10.12 < DEVELOPMENT OF A HARMONISED TRIPS POLICY FOR ADOPTION BY ECOWAS MEMBER STATES THAT EMPLOYS TRIPS FLEXIBILITIES TO IMPROVE ACCESS TO MEDICINES IN THE REGION (healthresearchwebafrica.org.za)> accessed 08 May 2024; See also the Preamble to the Guidelines for Implementation of TRIPS Flexibilities in National Legislation to Improve Access to Medicines in the West African Region.

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indigenous knowledge and implementing the TRIPS flexibilities on IP issues. Therefore, the ECOWAS framework can accommodate indigenous knowledge.

3.2.3.3. The East African Community

The EAC is made up of six African states.[85] The Treaty for the Establishment of the East African Community (EAC Treaty) is the framework for the EAC's establishment, objectives, and functioning.[86] Its deepened focus areas, such as socio-economic, political, cultural, science, technology, safety, and security, indicate the EAC's stronger stance to integrate the African region economically.[87] Like the ECOWAS and the SADC, the EAC uses the EAC Treaty to achieve its objective: developing a policy framework and programmes to broaden and promote collaboration on socio-economic, political and cultural, science and technology, safety and security, and judicial affairs.[88] The EAC institutional framework has a wide range of focus areas, opening up an opportunity for the coverage of indigenous knowledge, potentially under the cultural part of the Treaty's objectives.[89]

Indigenous knowledge is recognised as a means to achieve African development. Article 103(1)(c) provides that in recognition of science and technology as a means to achieve economic growth, member states are to collaborate on using indigenous scientific and technological mechanisms.[90] Article 109(c) also provides that in collaboration on agricultural and food production issues, member states are to use indigenous mechanisms for crop irrigation.[91] Furthermore, member states are to adopt community programmes on environmental management to sustain natural resources and the environment.[92]

To develop the EAC region in terms of health and other socio-cultural aspects, member states are to collaborate on the use of alternative indigenous medicines,[93] and indigenous food products.[94] Furthermore, in promoting culture, states collaborate

[85] DR Congo, Kenya, Somalia, Burundi, Rwanda, South Sudan, Uganda, and Tanzania.
[86] See generally, the EAC Treaty.
[87] See article 5(1) of the EAC Treaty. See also Article 5(2) of the EAC Treaty.
[88] Article 5 of the EAC Treaty.
[89] *Ibid*.
[90] Article 103(1)(c) of the EAC Treaty.
[91] Article 109(b) of the EAC Treaty.
[92] Article 112(2)(l) of the EAC Treaty.
[93] See Article 118(f) of the EAC Treaty.
[94] Article 118(h) of the EAC Treaty.

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to encourage arts, protect them, and develop the cultural identity of respective states.[95] The Treaty further provides that member states are to collaborate on the promotion of indigenous languages, with specific reference to Kiswahili.[96]

Formed by Tanzania, Uganda, and Kenya, the Protocol on the Establishment of the East African Science and Technology Commission establishes a commission responsible for developing and using science and technology in the East African region.[97] Article 5 encourages collaboration to achieve this objective. Although the protocol does not explicitly mention indigenous knowledge, the broad scope of indigenous knowledge, as previously indicated throughout this study, arguably falls under the science and technology this Protocol pronounces. This is where indigenous people use their knowledge to perform specific tasks, from agricultural to medicinal product development.

The EAC Regional Intellectual Property Policy on the use of public health-related WTO–TRIPS flexibilities and the approximation of national intellectual property legislation (EAC IP Policy, 2013) also guides member states to the EAC on how they can use the TRIPS flexibilities to enhance access to healthcare services within their national jurisdiction using intellectual property. In terms of this Policy, member states are to use TRIPS flexibilities to ensure that indigenous medicines are protected in the IP framework, namely by patents. It further provides that member states may employ other measures to prevent misappropriation and misuse of indigenous resources.[98]

Furthermore, Policy Statement No. 3 of the EAC IP Policy, 2013, provides that inventors of indigenous medicines shall receive incentives for their creations, therefore promoting innovation in the EAC region.[99] Creators shall be entitled to such payment from third parties who use the information developed by the indigenous people.[100] The above provisions accommodate indigenous knowledge in that they recognise TRIPS flexibilities to protect the information concerned with resources used to develop and use indigenous medicines. Their recognition of the need to incentivise the use of

[95] Article 119(c) of the EAC Treaty.
[96] See Article 119(d) of the EAC Treaty.
[97] See Articles 3 and 5 of the EAC Treaty.
[98] See Policy Statement No 2 of the EAC IP Policy, 2013.
[99] Policy Statement No 3 of the EAC IP Policy, 2013.
[100] *Ibid*.

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indigenous resources indicates the member states' broad stance on the EAC's take on protecting indigenous knowledge.

Despite the provision of these TRIPS flexibilities and the adoption at the regional level, there still seems to be an issue with implementation. Olatunji argues that states must ensure coherence in implementing the TRIPS flexibilities to advance access to health services.[101]

From the above discussion, the EAC framework on economic integration provides a basis for accommodating indigenous knowledge. It is argued that the framework is linked with trade, like the EAC.[102] can accommodate indigenous knowledge, and any policy created under this instrument may also be used for indigenous knowledge. As argued by Olatunji, TRIPS flexibilities need to be implemented coherently to achieve the socio-economic development of the EAC. These flexibilities may be used to protect indigenous knowledge in the IP provisions of trade agreements.

3.2.3.4. Common Market for Eastern and Southern Africa

COMESA was also established to bring about developmental change in Africa. This was to be achieved through integration starting in an RTA, a common market and, subsequently, an economy-based community. Member states[103] aim to remove trade barriers and follow a familiar pattern of trading. What warrants this discussion is how their legal framework has been structured and whether it can be used for indigenous

[101] See generally, Olugbenga Olatunji, 'Going It Alone or Acting as a Collective? Evaluating the East African Community Policy on Implementing TRIPS Obligations' (2024) 68 Journal of African Law 19 < Going It Alone or Acting as a Collective? Evaluating the East African Community Policy on Implementing TRIPS Obligations | Journal of African Law | Cambridge Core> accessed 08 May 2024; See also, Olugbenga Olatunji, 'Between Regional Recommendations and National Implementation: An Analysis of the East African Community Partner States' Legislative Responses to TRIPS Obligations' (2023) 54 International Review of Industrial Property and Copyright Law 673 < Between Regional Recommendations and National Implementation: An Analysis of the East African Community Partner States' Legislative Responses to TRIPS Obligations | IIC - International Review of Intellectual Property and Competition Law (springer.com)> accessed 08 May 2024.

[102] See the EAC Treaty generally, with specific reference to Chapter Eleven- Thirteen of the Treaty.

[103] Burundi, Comoros, D.R. Congo, Djibouti, Egypt, Eritrea, Eswatini, Ethiopia, Kenya, Libya, Madagascar, Malawi, Mauritius, Seychelles, Rwanda, Somalia, Sudan, Tunisia, Uganda, Zambia, and Zimbabwe.

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knowledge protection.[104] The Treaty Establishing the Common Market for Eastern and Southern Africa is the legal framework for development in the COMESA.[105]

Like other REC instruments, the COMESA Treaty does not mention indigenous knowledge. However, its continual reference to or the use of "indigenous" can mean that COMESA recognises the importance of indigenous aspects of development. Article 100 provides priority areas, including developing indigenous entrepreneurship and industries.[106] Furthermore, as a means to build on technological developments, member states collaborate using indigenous science and technology, focusing on craft and fabrication mechanisms.[107]

Member states are to promote access to the holders of indigenous knowledge. This is indicated in article 128, which provides that member states are to promote access to science and technology to indigenous technologists, scientists, and engineers.[108] An inference can be drawn from this provision that those who practise indigenous knowledge in their respective fields are highly accommodated in the Treaty.

Part A of the COMESA Policy on Intellectual Property Rights recognises IP for indigenous knowledge and cultural and creative industries, among other fields.[109] The policy recognises that the current economy is knowledge-based, and IPR associated with such knowledge should be protected.[110] This is one of the essential frameworks for protecting indigenous knowledge in the African REC. Of the most critical roles the states are to play in safeguarding IPR, this chapter recognises as encouraging the development, use, and commercialisation of IPR; creating a legal framework for their protection; having integration into the socio-economic programmes; measures aimed at transforming the COMESA to keep up with the knowledge-based economy with the creation of an environment conducive for innovation; creating awareness on the use of IPR; and capacity-building in the COMESA region.[111]

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[104] Solomon Gina and Abebe Endale, 'COMESA' Prospects and challenges for regional trade integration' (2019) 76 International Affairs and Global Strategy 15.
[105] See Preamble to the Treaty Establishing the Common Market for Eastern and Southern Africa.
[106] Article 100(i) of the COMESA Treaty. See also Article 146 of the COMESA Treaty.
[107] Article 127(b) of the COMESA Treaty.
[108] Article 128(c) of the COMESA Treaty.
[109] The COMESA Policy on Intellectual Property Rights.
[110] *Ibid*.
[111] See No 14 of the COMESA Policy on Intellectual Property Rights.

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No 15 to 17 of the COMESA Policy on Intellectual Property addresses the trading of IPR.[112] It requires the removal of restrictions that hinder the trading of IPR. This is conducive to the commercialisation of indigenous knowledge. The Policy outlines the benefits of IP provision in the trade context, such as preventing counterfeit products from trading and promoting lawful competition and trade.[113] Therefore, it may be argued that the IP provisions of trade agreements are adequate for protecting indigenous knowledge, as they ensure that sufficient and legitimate indigenous knowledge is being traded. The rightful owners thereof are rightfully compensated for their intellectual work.

Recognising the link between the IP regime and cultural industries indicates the possible accommodation of indigenous knowledge in the REC framework on trade and industry. Recognising the cultural sector where creations like music, books, and print are sold[114] indirectly recognises indigenous knowledge involved in developing the above artistic work and indigenous knowledge as a subject matter shared through these creative works.

Indigenous knowledge-focused no 27 to 30 of the COMESA Policy on Intellectual Property Rights provides for the link between the IP regime and indigenous knowledge (and expressions of folklore).[115] The Policy recognises the importance of indigenous knowledge in the economic development discourse. It mandates member states to be involved in the promotion of knowledge by ensuring that indigenous knowledge and its developers are acknowledged in the process where the knowledge has been used, collaborates on the information exchange, and engage in the creation of legal instruments that aim to enhance the protection of indigenous knowledge.[116]

3.2.3.5. Inter-Governmental Authority on Development

The IGAD comprises six African countries: Somalia, Kenya, Uganda, Ethiopia, Sudan, and Djibouti. This community was formed to address the effects of drought and

[112] See generally, No 15, 16, and 17 of the COMESA Policy on Intellectual Property Rights.
[113] *Ibid*.
[114] See no 21 to 26 of the COMESA Policy on Intellectual Property Rights.
[115] See No 27, 28, 29, and 30 of the COMESA Policy on Intellectual Property Rights.
[116] *Ibid*.

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desertification that have dominated the region since the 1970s.[117] The IGAD Treaty, entered into by these member states, aims to integrate the region economically by enhancing governance, ensuring smooth trade, safety, and security and promoting natural and human resources.[118] Article 7 of the COMESA Treaty provides that members are to cooperate on technological and scientific strategies and promote the development of natural resources and the environment.[119] This aligns with the objectives of the IGAD Treaty, which aim to promote the development, use, and commercialisation of natural resources. Indigenous knowledge of these natural resources is therefore implicated.

The IGAD Drought Disaster Resilience and Sustainability Initiative (IDDRSI)[120] is one of the frameworks focused on addressing drought and desertification in the IGAD region. To enhance its research, science, technology, and innovation (ST& I) in the IGAD region, the PIA 5 provides that member states are to:

> "Support research and capacity-building in priority themes including indigenous knowledge and technology for climate risk management, and applied ICT and knowledge management."[121]

The IDDRSI Strategy also promotes respecting and observing indigenous mechanisms in cattle management.[122]

The continual reference to natural resources and the environment, which indigenous knowledge has documented, and indigenous knowledge per se, justifies this chapter's argument that the same provisions may benefit indigenous knowledge protection. The IDDRSI Strategy mentions "indigenous" on various occasions, as outlined above. This indicates the stance the IGAD union takes in recognition of indigenous systems. This is another basis for accommodating indigenous knowledge in the IGAD framework.

3.2.3.6. Economic Community of Central African States (ECCAS)

[117] Agreement Establishing the Inter-Governmental Authority on Development (IGAD), hereafter, the IGAD Treaty.
[118] See Preamble to the COMESA Treaty.
[119] Article 7(e) of the COMESA Treaty.
[120] The IDDRSI Strategy.
[121] See Priority Intervention Area 5.2 of the DDRSI Strategy. See also Priority Intervention Area 5.3 of the IDDRSI Strategy.
[122] See no. 3.3.2 of the DDRSI Strategy.

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Eleven nations established the ECCAS: the Republic of Angola, Burundi, the United Republic of Cameroon, the Central African Republic, the Republic of the Congo, the Gabonese Republic, the Republic of Equatorial Guinea, the Rwandese Republic, the Democratic Republic of Sao Tome and Principe, the Republic of Chad, and the Republic of Zaire.[123] Article 4 of the ECCAS Treaty provides that the ECCAS was established to foster cooperation and development in the following sectors: socio-economic, cultural, science and technology, natural resources and the environment, trade and tourism, and education.[124]

In using human skills for socio-economic development, member states of the ECCAS Treaty must cooperate on developing and using indigenous medicine and knowledge exchange.[125] Article 47 provides that to achieve growth, member states must promote the use of local resources.[126] Article 51 of the ECCAS Treaty states that member states must consider local contributions in collaborating on science and technology.[127] They are to promote these technologies and the regulations on the technology.[128]

This discussion depicts the possible accommodation of indigenous knowledge in the ECCAS framework, though it needs to be explicitly mentioned. Therefore, it is argued that the protective mechanisms of the ECCAS Treaty may be used to protect indigenous knowledge.

3.2.3.7. Preliminary remarks

The discussion above shows how some of the REC could accommodate indigenous knowledge in their quest for African economic integration. It argued that inferences may be drawn from the provisions that do not explicitly mention indigenous knowledge but instead refer to various fields where indigenous knowledge is applicable, such as medicine, agriculture, health, education, commerce, and environmental management. The following section explores the RTA framework built within these RECs, specifically

[123] See Preamble to the Treaty Establishing the Economic Community of Central African States (ECCAS Treaty).
[124] Article 4(1) of the ECCAS Treaty.
[125] Article 60(2)(d) of the ECCAS Treaty.
[126] Article 47(1)(d) of the ECCAS Treaty.
[127] Article 51(1)(c) of the ECCAS Treaty.
[128] Article 51(2)(c) of the ECCAS Treaty. See also Article 56(e) of the ECCAS Treaty.

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the AfCFTA Agreement. It explores the challenges and prospects of protecting indigenous knowledge as a tool for African economic development.

3.3. IPR provisions in RTAs: An analysis

3.3.1. Introduction

The African RTA regime is a commitment by member states to comply with their respective legal instruments. Despite such commitments, scholars like Gathii posit that coordination and collaboration between member states must be addressed.[129] He submits further that African RTA mainly shows flexibility, where members do not have to adhere strictly to trade rules.[130] Given that these RTA include provisions on the protection of IPR, which the AfCFTA Agreement has indicated includes indigenous knowledge,[131] it is essential to examine the design of African RTA to determine whether their IPR provisions can accommodate indigenous knowledge. Ncube submits that the design of regional trade should depict nations' commitment to addressing socio-economic rights by protecting IPR.[132]

This subsection reviews RTA and draws inferences from the working paper by Raymundo Valdés and Maegan McCann.[133] The study focused on the RTA notified to the WTO and, therefore, provides reliable information on the nature of RTA, including the ones from Africa. The study also focused on the RTA in the WTO trade report.[134]

The discussion below focuses on the Agreement on Trade-Related Aspects on Intellectual Property Rights as Amended by the 2005 Protocol Amending the TRIPS Agreement (TRIPS Agreement) as the basis of IP provisions in the trade regime. Second, it examines the design of RTA. Lastly, this subsection determines whether

[129] James Gathii, 'African Regional Trade Agreements as Flexible Legal Regimes' (2010) 35 North Carolina Journal of International Law 571.
[130] James Gathii, 'African Regional Trade Agreements as Flexible Legal Regimes' 573.
[131] See generally, the Protocol to the Agreement Establishing the African Continental Free Trade Area on Intellectual Property Rights (IP Protocol).
[132] Caroline Ncube, 'The development of intellectual property policies in Africa- Some key considerations and research agenda' (2013) 1 Intellectual Property Rights 1.
[133] See y Raymundo Valdés and Maegan McCann, 'Intellectual Property Provisions in Regional Trade Agreements: Revision and Update' (2014) WTO Staff Working Paper, No. ERSD-2014-14, World Trade Organization (WTO), Geneva < Intellectual property provisions in regional trade agreements: Revision and update (econstor.eu)> accessed 17 April 2024.
[134] World Trade Organization, 'The WTO and preferential trade agreements: From co-existence to coherence' (2011) World Trade Report 2011 < world_trade_report11_e.pdf (wto.org)> accessed 17 April 2024.

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the general architecture of trade IP provisions can accommodate indigenous knowledge.

Negotiated during the Uruguay Round (1986–1994), the TRIPS Agreement introduced IPR rules into the global trade regime. These rules are covered by the following exclusive rights in the TRIPS Agreement: patents, copyrights, trade secrets, trademarks, designs, and geographical indications.[135] The Agreement also covers competition and related policy considerations that seek to regulate trade by ensuring fair competition between trading partners.[136] The IPR rules in the TRIPS Agreement were established to provide for a minimum protection of IPR,[137] meaning that an option was left for the member states to extend the existing rules.

The Agreement also seeks to address disputes arising from the execution of IPR by providing dispute settlement.[138] In the process, the Agreement aims to balance the innovators' private interests and the public's interests in accessing various IP-protected subject matters. An example is the use of copyright protection granted to an individual, giving rise to the right to receive incentives for using copyrighted material. At the same time, the IP provisions accept the use of copyrighted material for non-commercial use.[139]

Overall, the TRIPS Agreement covers the following provisions: general provisions and basic principles of the IP system; standards on availability, scope, and use of IPR; implementation of IPR; the establishment and sustaining of IPR; dispute-resolution mechanisms; interim framework; institutional framework; and the international cooperation, review and the amendment of the Agreement.[140] The TRIPS Agreement also includes a national treatment principle, which requires member states to treat members and non-members equally.[141] TRIPS further states that its IP system promotes innovation and technology transfer for the public benefit.[142]

[135] See generally the TRIPS Agreement.
[136] Article 8 of the TRIPS Agreement.
[137] See Preamble to the TRIPS Agreement.
[138] See Part V of the TRIPS Agreement.
[139] See generally the TRIPS Agreement' provisions of non-commercial use. For example, Articles 31 and 73 of the TRIPS Agreement.
[140] See the TRIPS Agreement generally.
[141] See Article 3 of the TRIPS Agreement.
[142] Article 7 of the TRIPS Agreement.

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As a reference point, the TRIPS Agreement recognises rules embedded in agreements such as the Paris Convention and the Berne Convention for the Protection of Literary and Artistic Works (copyright).[143] The TRIPS Agreement also provides for the enforcement of IP provisions,[144] emphasising fairness and equity,[145] timeous enforcement, and promoting trade relations. As a further means to prevent the infringement of IPR, the TRIPS Agreement provides for the criminalisation of IPR infringement. [146]

The above provisions in the TRIPS Agreement are the basis of many provisions in various RTA notified to the WTO. If the current RTA were to be judged on their coverage of IP issues specifically, inferences would need to be drawn from the WTO laws on trade-related aspects of IPR. The section below explores the design of individual RTA.

3.3.2. The design of RTA: A general overview

A common objective of including IPR provisions in the trade regime is to ensure IP protection. Hence, RTA is expected to depict the parties' commitment to protect IPR. With that objective in mind, parties must develop the most appropriate and practical means to protect IPR. Depending on the parties' everyday needs, the objectives for protecting IPR usually depict the socio-economic and political stance of the concerned parties. Various RTAs justify their aim of protecting IPR. To some extent, this is seen by some RTA allowing states to go beyond the TRIPS Agreement's scope.[147]

Often, parties to RTA recognise their need to comply with global binding instruments such as the TRIPS Agreement to protect IPR, compared to doing it to satisfy their needs. For WTO members, this is because compliance with the TRIPS Agreement is compulsory. This shows that the reasons behind parties' desire to protect IPR vary according to the needs of the concerned parties. The RTA's affirmation of the WIPO framework on IPR is attributed to the enforcement advantages of the WIPO regime. For example, article 1701(2) of the NAFTA provides for parties to the Agreement to

[143] See Article 1, 2, 3, 15, 16, 22, 39, 62, and Appendix to the TRIPS Agreement.
[144] See generally part III of the TRIPS Agreement.
[145] See Articles 17, 39(3), 41, and 42 of the TRIPS Agreement.
[146] See Article 61 of the TRIPS Agreement.
[147] See Article 1702 of the North American Free Trade Agreement (NAFTA); see also Article 16(2) of the Korea, Republic of - Chile RTA.

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consider provisions of the WIPO framework, even when they have not assented to such WIPO frameworks.[148]

RTA draws inferences from the TRIPS Agreement on the principle of the most favoured nation (MFN). In so doing, RTA supplements the provision made by the TRIPS Agreement.[149] The main objective is to afford equal treatment to members and non-members of a particular RTA. Provisions on the cooperation and coordination of IPR seek to benefit and uplift developing nations through knowledge transfer and public awareness.[150] Enforcement procedures such as criminal and civil sanctions ensure the IPR are adequately enforced.[151] RTA provide for cooperation, information exchange, and the creation of responsible institutions to ensure a smooth exchange of information. An IP border measure provision is an obligation to undertake action related to treating IP at a party's border.[152]

In addition to the general provisions on IPR, RTA may include various specific IPRs such as patents, copyrights, designs, geographical indications, indigenous knowledge and genetic resources, trademarks, and trade secrets. The debate about protecting indigenous knowledge through the IP provisions of trade agreements is usually focused on copyrights, patents, and trade secrets. The discussion below considers specific RTA and determines whether they accommodate the protection of indigenous knowledge.

3.3.3. Indigenous Knowledge Provisions in RTAs

Frankel is one of the scholars who addressed integrating indigenous knowledge into the trade agreements.[153] Frankel recognises the recent design of FTA, which often goes beyond the scope of the WTO, covering cultural heritage, indigenous knowledge, and other IPRs.[154] For example, the AfCFTA Agreement goes beyond the initial design

[148] Article 1701(2) of the NAFTA. See also Article 1 of Annex 7 to the EU – Morocco RTA.
[149] See Articles 19(2) and 19(3) of the Stockholm Convention, 1960; see also Articles 24(2) and 24(3) of the Egypt – Turkey RTA.
[150] See Article 9(1) of the ASEAN - Australia - New Zealand RTA.
[151] See Article 17(11)(27)(a) of the US – Australia RTA.
[152] See Article 9(6) of the ASEAN - Australia - New Zealand RTA.
[153] See generally, Susy Frankel, 'Attempts to Protect Indigenous Culture through Free Trade Agreements' (2011) 1(6) Victoria University of Wellington Legal Research Papers Paper No 34/2011 < Attempts to Protect Indigenous Culture Through Free Trade Agreements by Susy Frankel :: SSRN> accessed 09 May 2024.
[154] Susy Frankel, 'Attempts to Protect Indigenous Culture through Free Trade Agreements' 1; See also Susy Frankel, 'The Legitimacy and Purpose of Intellectual Property Chapters in FTAs' in Ross Buckley

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of RTA by including indigenous knowledge as one of the IPRs.[155] As with the AfCFTA Agreement, it is noted that FTA tend to leave the negotiations to the member states to agree on terms for protecting indigenous knowledge.[156] Despite the view that the FTA may not adequately protect indigenous knowledge,[157] in this chapter, I argue in favour of Frankel's view that the FTA allow states with the same objectives to commodify the knowledge for mutual benefit. As pointed out by Frankel above, protecting indigenous knowledge in the trade regime has not been without criticism. This section explores the challenges and opportunities for integrating indigenous knowledge in the trade regime. These challenges and opportunities usually focus on indigenous/cultural rights, IPR, and environmental rights.[158]

Moody submits that trade-related IP provisions for indigenous knowledge restore the standards for addressing biopiracy in trade practices.[159] This is because these provisions tend to politically situate the indigenous people at the centre of ownership of indigenous knowledge and the associated resources.[160] Furthermore, trade-related IP provisions recognise the need to implement equitable benefit sharing.[161] On the other hand, Moody addresses the concerns of indigenous people who do not support the idea of reducing indigenous knowledge into a valuable commodity.[162] Instead, indigenous knowledge is not a commodity but a source of innovative ideas through which various products were/are created.[163] Furthermore, indigenous knowledge greatly respects its contribution to environmental conservation, indirectly affecting trade by creating environments conducive to trade activities. [164]

Indigenous knowledge in the trade context is also relevant for retaining the market's integrity.[165] Moody argues that recognising indigenous knowledge in trade agreements

et al (eds) *Challenges to Multilateral Trade the Impact of Bilateral, Preferential and Regional Agreements* (Wolters Kluwer 2008).
[155] See Article 18 of the IP Protocol.
[156] Susy Frankel, 'Attempts to Protect Indigenous Culture through Free Trade Agreements' 9.
[157] Susy Frankel, 'Attempts to Protect Indigenous Culture through Free Trade Agreements' 21.
[158] Oluwatobiloba Moody, 'Trade-Related Aspects of Traditional Knowledge: Addressing Multilateral Deficiencies for Biopiracy through Bilateral Deals' 187.
[159] *Ibid*.
[160] n 158 above.
[161] *Ibid*.
[162] Oluwatobiloba Moody, 'Trade-Related Aspects of Traditional Knowledge: Addressing Multilateral Deficiencies for Biopiracy through Bilateral Deals' 188.
[163] *Ibid*.
[164] n 162 above.
[165] *Ibid*.

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is an opportunity to promote the economic viability of the knowledge, therefore fostering future collaborations on the commercialisation of the knowledge.[166] Furthermore, this inclusion has opened an opportunity for knowledge sharing, essential for sustainable economic development.[167]

In support of using trade agreements to safeguard indigenous knowledge and drawing from the Peruvian legal framework on trade, IP, and indigenous knowledge, Sanabria submits that the FTA impose benefit-sharing mechanisms, compulsory source disclosures, and informed consent, which are beneficial to the indigenous knowledge holders.[168] He argues that recognising indigenous knowledge in the trade-related IP aspects and implementing the above mechanisms ensures transparency about using the knowledge and associated resources. Lastly, it recognises the association between IP and indigenous knowledge. [169]

On the other hand, opponents of trade-related IP aspects' protection of indigenous knowledge argue that FTA threatens the autonomy of indigenous knowledge.[170] However, of interest is the recognition that the proponents of free trade can sell indigenous knowledge, and FTA are therefore relevant.[171] They argue that this inclusion is to create a legal way of appropriating indigenous people's knowledge, therefore avoiding being accused of committing biopiracy.[172] They further argue that the non-recognition of indigenous people's relations to indigenous knowledge is a clear indication that governments want to use the trade regimes for their benefit. This is not entirely true because the evolution of trade-related IP aspects of indigenous

[166] Oluwatobiloba Moody, 'Trade-Related Aspects of Traditional Knowledge: Addressing Multilateral Deficiencies for Biopiracy through Bilateral Deals' 189.
[167] Oluwatobiloba Moody, 'Trade-Related Aspects of Traditional Knowledge: Addressing Multilateral Deficiencies for Biopiracy through Bilateral Deals' 190-191.
[168] Diego Francoise Ortega Sanabria, 'Trend on the protection of traditional knowledge associated with genetic resources within intellectual property chapters of free trade agreements: The Peruvian experiences' (2019) 14(9) Journal of Intellectual Property Law& Practice 728.
[169] Diego Francoise Ortega Sanabria, 'Trend on the protection of traditional knowledge associated with genetic resources within intellectual property chapters of free trade agreements: The Peruvian experiences' 734.
[170] See generally GRAIN and Silvia Rodríguez Cervantes, 'FTAS: Trading away traditional knowledge' (2006) < FTAS: TRADING AWAY TRADITIONAL KNOWLEDGE (iprsonline.org)> accessed 09 May 2024.
[171] GRAIN and Silvia Rodríguez Cervantes, 'FTAS: Trading away traditional knowledge' 1-2.
[172] GRAIN and Silvia Rodríguez Cervantes, 'FTAS: Trading away traditional knowledge' 3.

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knowledge does recognise indigenous people as the holders of indigenous knowledge.[173]

Furthermore, safeguarding indigenous knowledge requires the implementation of prior art disclosures, equitable benefiting sharing, and consent-giving.[174] There must be reason enough to disregard the legitimacy of recognising indigenous knowledge in the trade regime, especially in the AfCFTA Agreement, where an opportunity to develop further measures to implement these mechanisms has been created.[175] This study aims to develop these measures.[176]

Van Goethe submits that a trade regime fosters economic integration and promotes corporate productivity and development.[177] Wouldn't this be beneficial for indigenous knowledge? According to van Goethe, this amounts to double the benefit, as it protects cultural heritage and economic development.[178] The dispute settlement of the WTO, evident in trade agreements like the AfCFTA Agreement, is another reason why the FTA are suitable for protecting indigenous knowledge.[179] The party whose indigenous knowledge has been infringed can use the established dispute resolution mechanism to secure justice.

Van Goethe argues further that although the cultural heritage framework may provide a different jurisprudence to an economic framework, the two are interconnected, and having a framework that focuses on one and integrates the other does not cause any material issues.[180]

[173] For example, requiring the patent applicants to disclose the source of an indigenous knowledge, having obtained free prior informed consent can only be executed if indigenous people are involved in the process. See Article 18, 19 and 20 of the IP Protocol.
[174] GRAIN and Silvia Rodríguez Cervantes, 'FTAS: Trading away traditional knowledge' 6-7.
[175] See Article 18 of the IP Protocol.
[176] These guidelines will guide policymakers of the AfCFTA Agreement, in designing the Annex to the IP Protocol on indigenous knowledge.
[177] Johann Wolfgang von Goethe, 'Converging divergences in the Jurisprudence of Cultural Heritage-Related International Economic Disputes' in Johann Peter Eckettman, *Conversations of Goethe with Eckerman and Soret* (Smith, Elder& Co. 1850) 328.
[178] Johann Wolfgang von Goethe, 'Converging divergences in the Jurisprudence of Cultural Heritage-Related International Economic Disputes' 330.
[179] Johann Wolfgang von Goethe, 'Converging divergences in the Jurisprudence of Cultural Heritage-Related International Economic Disputes' 335-336.
[180] Johann Wolfgang von Goethe, 'Converging divergences in the Jurisprudence of Cultural Heritage-Related International Economic Disputes' 345-347.

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In addition, Farran submits that safeguarding indigenous knowledge in the IP aspects (of trade) is possible as long as these measures recognise the indigenous people's interests.[181] She also acknowledges that the incentivisation of indigenous knowledge may become an offence to some indigenous people.[182] Although that may be the case, I argue for commercialising indigenous knowledge, provided informed consent has been obtained. Therefore, recognising indigenous knowledge in the trade setting does not impose a mandatory trade of knowledge.

Ncube outlines that the AfCFTA Agreement obligates member states to ensure that a source of indigenous knowledge is disclosed, provide proof of prior informed consent and that an equitable and fair benefit-sharing agreement has been entered into between the indigenous people and the third parties wishing to use indigenous knowledge.[183] This stance ensures an adequate protection of the knowledge. Arguably, the AfCFTA Agreement, being an FTA, means that the FTA regime has the prospect of adequately safeguarding indigenous knowledge. Indeed, as discussed further below, a growing list of FTAs makes provisions for protecting indigenous knowledge.

3.3.3.1. Free Trade Agreement Between the Republic of Colombia and the European Free Trade Agreement (EFTA) States

A Free Trade Agreement Between the Republic of Colombia and the EFTA States[184] (Columbia–EFTA RTA) is one of the RTA whose IP provisions protect indigenous knowledge and genetic resources.[185] Article 6(1)(1) provides that the protection of IPR shall be achieved on a non-discriminatory, adequate, equitable, and practical basis. This will include enforcing such measures that will prevent infringement of IPR.[186]

[181] Sue Farran, 'Aid, trade, and taboo: the place of indigenous traditional knowledge in development strategies: a Pacific perspective' (2014) 1(28) Development Studies Research 28.
[182] Sue Farran, 'Aid, trade, and taboo: the place of indigenous traditional knowledge in development strategies: a Pacific perspective' 37-38.
[183] Caroline Ncube, 'The protection of traditional knowledge, traditional cultural expressions, expressions of folklore and genetic resources within the African Continental Free Trade Area- Alignment with the international and regional development' 2.
[184] Iceland, Norway, Switzerland, and Liechtenstein.
[185] See Preamble to; Articles 1(2), and chapter 6 of the Columbia-EFTA RTA.
[186] Article 6(1)(1) of the Columbia-EFTA RTA.

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Furthermore, it states that protecting IPR should promote innovation and knowledge transfer, accelerating socio-economic development.[187]

Article 6(5) recognises the need to protect genetic resources.[188] It provides that the protection of IPR should promote the principle of fair and equitable sharing in that the use of genetic resources, either by member states or external parties, should benefit the member state based on the principle of sovereignty over natural resources.[189] Articles 6(5)(2) and 6(5)(3) recognise the role played by indigenous people in the development of knowledge associated with the discovery, development, and use of genetic resources.[190] The Columbia-EFTA RTA suggests using state collaboration to ensure that this indigenous knowledge is adequately protected.[191]

Furthermore, the Columbia-EFTA RTA provides that applicants are to disclose any prior art in their subject matter when making patent applications concerning genetic resources.[192] Article 6(5)(7) provides that access to genetic resources and indigenous knowledge shall be subject to prior art disclosure, and the indigenous communities consenting to such[193] and failure to disclose or provide false information regarding prior art will be a punishable offence.[194]

3.3.3.2. Free Trade Agreement between the Republic of China and the Republic of Panama

The Free Trade Agreement between the Republic of China and the Republic of Panama (China–Panama RTA) also protects indigenous knowledge in the context of the IP regime. Article 16(5)(1) states that each member state must protect IPR and indigenous knowledge attached to indigenous people's intellectual creations. This is to be achieved through registration and promotion of cultural and IPR knowledge, which will be used to promote the socio-economic needs of the indigenous people.[195] It requires member states to recognise and acknowledge the customs and traditions,

[187] Article 6(2)(1) of the Columbia-EFTA RTA.
[188] Article 6(5) of the Columbia-EFTA RTA.
[189] Article 6(5)(1) of the Columbia-EFTA RTA.
[190] See Articles 6(5)(2) and 6(5)(3) of the Columbia-EFTA RTA.
[191] Article 6(5)(3) of the Columbia-EFTA RTA.
[192] See Articles 6(5)(4) and Articles 6(5)(5) of the Columbia-EFTA RTA.
[193] Article 6(5)(7) of the Columbia-EFTA RTA.
[194] Article 6(5)(6) of the Columbia-EFTA RTA.
[195] Article 16(5)(1) of the China-Panama RTA.

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folklore expressions and artistic expressions, and indigenous skills and expressions as the cultural heritage of indigenous people.[196] It further provides that this cultural heritage will be protected as part of IPR.[197]

Article 16(7)(1) provides that the IPR's protection shall be extended to genetic resources and indigenous knowledge associated with using the same resources as developed by the indigenous people.[198] State parties are to ensure that the indigenous people benefit from using such genetic resources and indigenous knowledge associated with the use of genetic resources.[199] The RTA further requires member states to ensure fair and equitable sharing of benefits obtained from using indigenous knowledge.[200] States may use licences over patents concerning indigenous knowledge-based subject matter to achieve that.[201]

3.3.3.3. The Panama–Taiwan Free Trade Agreement

Section B of the Panama–Taiwan Free Trade Agreement (Panama–Taiwan RTA) protects indigenous knowledge in the context of the IP regime. In terms of article 16(2), member states are to protect IPR as outlined in the Agreement on the condition that such protection does not hinder the success of trade between member states and member states and non-member states.[202] Article 16(5) provides that each member state must protect IPR and indigenous knowledge attached to indigenous people's intellectual creations, as in the China- Panama RTA.[203] This will be achieved by registering and promoting cultural and IPR knowledge.[204] It requires member states to recognise and acknowledge the customs and traditions, folklore expressions and artistic expressions, and indigenous skills and expressions as the cultural heritage of indigenous people.[205]

3.3.3.4. ASEAN–Australia–New Zealand FTA

[196] Article 16(5)(2) of the China-Panama RTA.
[197] Article 16(5)(3) of the China-Panama RTA.
[198] Article 16(7)(1) of the China-Panama RTA.
[199] *Ibid*.
[200] Article 16(7)(2) of the China-Panama RTA.
[201] Article 16(7)(3) of the China-Panama RTA.
[202] Article 16(2) of the Panama- Taiwan RTA.
[203] Article 16(5)(1) of the Panama-Taiwan RTA.
[204] *Ibid*.
[205] See Articles 16(5)(2) and 16(5)(3) of the Panama-Taiwan RTA.

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The member states of this FTA commit to reducing trade barriers by promoting economic integration.[206] This would include the promotion of IPR and considering various national legal systems on IP issues. Article 8 leaves it to the member states to develop and implement measures to protect indigenous knowledge.[207] With the affirmation of the TRIPS Agreement as outlined in article 3 of the ASEAN–Australia–New Zealand FTA, leaving the states with the obligations to protect indigenous knowledge allows them to use the TRIPS flexibilities, by developing and implementing laws that respond to individual states.

3.3.3.5. Preliminary remarks

The above is some RTA that protect indigenous knowledge in the trade regime. From the above, it is evident that nations, when entering RTA, design IP provisions to accommodate indigenous knowledge. A pattern followed is an acknowledgement of the cultural identity in indigenous knowledge. In that manner, they advocate measures that provide fair and equitable sharing of benefits generated from indigenous knowledge-based subjects. The AfCFTA Agreement also contains provisions for the protection of indigenous knowledge. But to what extent are these provisions adequate for safeguarding indigenous knowledge? The discussion below examines the AfCFTA Agreement and determines its propriety in preserving indigenous knowledge. The current trend of RTA acknowledges indigenous knowledge as an integral IPR worth protecting.

3.4. The AfCFTA Agreement: Challenges and prospects

3.4.1. Introduction

The AfCFTA Agreement is the first African regional framework to promote socio-economic integration by boosting African trade.[208] Adopted on 21 March 2018, The AfCFTA Agreement is the first African quest to create a single market for trading goods and services in Africa.[209] As of May 2024, 54 African states have ratified the AfCFTA

[206] Article 1 of the ASEAN-Australia-New Zealand FTA.
[207] Article 8 of the ASEAN-Australia-New Zealand FTA.
[208] See Preamble to the AfCFTA Agreement.
[209] Article 3 of the AfCFTA Agreement.

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Agreement,[210] which indicates the great stance African states have taken to achieve the economic development objectives of the AfCFTA Agreement.

The AfCFTA Agreement aims to foster economic development, industrial development, sustainable development, and social development of the livelihood of Africans.[211] It aims to achieve this through tariff elimination, trade liberalisation, cooperation in IP, an investment and competition policy framework, trade-related aspects, customs and facilitation mechanisms, dispute settlement mechanisms, and an institutional framework for implementing the Agreement.[212] Furthermore, implementing the AfCFTA Agreement is to be guided by the following principles: member states-driven, variable design, flexibility, transparency, sustainability, reciprocity, liberalisation, collaboration, and best practices.[213]

This subsection examines the IP Protocol to determine its propriety in adequately accommodating indigenous knowledge protection. Understanding the position of the AfCFTA Agreement in safeguarding indigenous knowledge is essential for conducting future assessments on the impact the Agreement potentially has on indigenous cultural heritage and socio-economic development in Africa.

3.4.2. The IP Protocol

Establishing the IP Protocol is a way of reaffirming Agenda 2063 aimed at sustainable development in Africa.[214] It is also per the obligation in article 7(1) of the AfCFTA Agreement, which requires member states to negotiate on IP issues.[215] Adopted in February 2023,[216] member states have committed to address the IP aspects of development,[217] as outlined in the AfCFTA Agreement.[218]

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[210] See the African Union, 'About the AfCFTA: A brief overview' <About The AfCFTA - AfCFTA (au-afcfta.org)> accessed 09 May 2024.
[211] See generally, Article 3 of the AfCFTA Agreement.
[212] See Article 4 of the AfCFTA Agreement.
[213] See generally, Article 5 of the AfCFTA Agreement.
[214] Preamble to the IP Protocol.
[215] *Ibid*. See Article 7(1) of the AfCFTA Agreement.
[216]Caroline Ncube, 'The protection of traditional knowledge, traditional cultural expressions, expressions of folklore and genetic resources within the African Continental Free Trade Area- Alignment with the international and regional development' (2024) Southviews No. 263 <The South Centre | SouthViews No. 263, 1 May 2024> accessed 09 May. See also, the Decision on the annual report of the Union and its organs including the specific thematic issues by the heads of states, Champions, Assembly/ AU/Dec.854 (XXXVI).
[217] Se Preamble to the IP Protocol.
[218] See generally, Preamble to, and Articles 3, 4, and 5 of the AfCFTA Agreement.

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The IP Protocol ensures that goods and services are traded in designated regions and promotes equal treatment of IPR.[219] Furthermore, the IP Protocol is an opportunity to fill in the gaps left by the TRIPS Agreement,[220] especially in the context of safeguarding indigenous knowledge. The report shows that the IP Protocol must outline trade-related IP aspects essential for African integration, ensure equal treatment between trading partners, and harmonise trade approaches.[221]

Generally, there are two approaches to safeguarding indigenous knowledge in the IP regime: defensive and positive.[222] The defensive approach ensures that third parties do not unfairly access IPR in traditional knowledge and related resources.[223] The defensive approach includes databases, source disclosures, secrecy, benefit sharing, and informed consent approaches.[224] On the other hand, positive approaches to safeguarding indigenous knowledge include adapting the IP system to meet the needs and interests of the indigenous communities.[225]

Different IP regimes (such as patents, trademarks, copyrights, trade secrets, and geographical indications) may suit the protection of indigenous knowledge, provided that they integrate. Patents may be defined as discretionary rights granted to an individual or a corporation concerning an invention. This protection applies for a specified period, and during this time, no other person may use it for commercial purposes without the consent of the person in whose favour a patent was granted.[226] It is beyond the scope of this thesis to consider the nature of patents per se, but

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[219] United Nations Economic Commission for Africa et al, 'Assessing Regional Integration in Africa IX' (2019) ARIA Report <aria9_report_en_4sept_fin.pdf (uneca.org)> accessed 09 May 2024.
[220] *Ibid*. See also article 27(3) leaves to member states to develop a sui generis system for plant variety protection.
[221] United Nations Economic Commission for Africa et al, 'Assessing Regional Integration in Africa IX' 125.
[222] See Jonathan Curci, 'The defensive protection of traditional knowledge in international patent law' in Jonathan Curci, *The protection of biodiversity and traditional knowledge in international law of intellectual property* (Cambridge University Press 2009) 131.
[223] Vera Shrivastav, 'Protection of Traditional Knowledge within the Existing Framework of Intellectual Property Rights: Defensive and Positive Approach' 2014 1<Protection of Traditional Knowledge within the Existing Framework of Intellectual Property Rights: Defensive and Positive Approach by Vera Shrivastav :: SSRN> accessed 27 November 2023.
[224] Loretta Feris, 'A legal framework for the protection of biodiversity related traditional knowledge' (2004) 11 South African Journal of Environmental Law and Policy 1 <A legal framework for the protection of biodiversity related traditional knowledge (journals.co.za)> accessed 27 November 2023.
[225] As this chapter has previously argued that the current IP system does not cater for the safeguard of indigenous knowledge. Therefore, there may be an integration of adapted IP regime and *sui generis* system into the IP Protocol/ adapted IP system as a stand-alone or the *sui generis* system as a stand-alone.
[226] Sagar Kishor Savale, 'Intellectual property rights (IPR)' 2531.

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criticisms are against using them to safeguard indigenous knowledge. The criticisms of safeguarding indigenous knowledge through patents are categorised into substantive, evidentiary, and administrative issues.

In terms of the substantive view, inventiveness is viewed as an individual goal of an inventor. Indigenous knowledge, on the other side, belongs to the indigenous community.[227] Furthermore, IPRs are granted to offer incentives for creative inventions, while indigenous knowledge is not created for incentives but as part of everyday living.[228] This is no longer the case, as there has been a rise in indigenous knowledge use in the commercial markets worldwide. The fact that state parties to the AfCFTA Agreement agreed to include indigenous knowledge as one of the commodities to be safeguarded so that they can be used for commercial purposes indicates the consensus reached on the commercial viability of indigenous knowledge.

It is further argued that having an individual originator may lead to the violation of indigenous community standards on indigenous knowledge. This occurs when some cultural groups regard their indigenous knowledge as secret and private.[229] Using indigenous knowledge in the trade context should not be forcefully imposed. Still, those who wish to have their knowledge form part of the community right can consent to such knowledge being freely accessible for the benefit of that indigenous community. This would foster the economic development of that indigenous community. The higher the interests and use of such safeguarded knowledge, the higher the revenue generated from such rights. In turn, the nation, region, and the African continent would benefit from such economic transactions, either through taxes or contributions in kind.

From the evidentiary perspective, it is argued that patent application presents difficulties regarding indigenous knowledge. The moment of inception and application for a patent should be separated. This task is difficult for indigenous knowledge, as it is difficult to determine when a particular aspect of indigenous knowledge has been

[227] Sarah Jane Moore and Yulia Nesterova, Indigenous knowledges and ways of knowing for a sustainable living' (2021) UNESCO Futures of Education report 1.
[228] John Cross, 'Property rights and traditional knowledge' 28-29.
[229] Erin Kathleen Bender, 'North and South: The WTO, TRIPS, and the Scourge of Biopiracy' (2003) Tulsa Journal of Comparative and International Law 281.

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developed.[230] This argument is based on the perception that indigenous knowledge is ancient knowledge with an unknown inception period.[231]

Furthermore, opponents of indigenous knowledge's IPR protection argue that it is difficult to determine which factors in indigenous knowledge are apparent and which are not, mainly because this knowledge has evolved as it was transmitted from one generation to another.[232] Administrative criticisms also concern technicalities and perceptions about indigenous communities. De Geers argues that most indigenous communities need more money to fund patent applications.[233] While this may be a valid argument, establishing an office that deals with financing patent applications would solve the problem. Furthermore, since this knowledge is sought to be safeguarded in a trade agreement, the state parties may establish an office that deals with patent applications for member states. This would eradicate the financial weakness of individual states safeguarding indigenous knowledge.

A trade secret guards against the disclosure of certain information.[234] Trade secrets are used for commercial information. To retain/sustainably generate revenue from a trade secret, information on a subject must not be disclosed to the public to avoid the risk of piracy. Therefore, a trade secret exists for as long as the owner wishes.[235] Oguamanam argues that the challenge with indigenous knowledge is that it is usually private and primarily communal indigenous knowledge. Therefore, he argues that using trade secrets to safeguard this knowledge would face challenges.[236] However, this study views this differently by relying on scholarly views on the position of trade secrets and indigenous knowledge. It responds to this criticism below.

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[230] Srividya Ragavan, 'Protection of indigenous knowledge' (2001) Social Science Research Network Electronic Journal <https://www.researchgate.net/publication/228175416_Protection_of_Traditional_Knowledge> accessed 02 November 2023.
[231] *Ibid*.
[232] For example, see Graham Dutgield, 'Protecting Traditional Knowledge and Folklore' (2003) 4(1) International Centre for Trade and Sustainable Development (ICTSD) International Environment House 1.
[233] Marcia Ellen DeGeer, 'Biopiracy: The Appropriation of Indigenous Peoples' Cultural Knowledge' (2003) 9(1) New England Journal of International and Comparative Law 179.
[234] For example, a recipe used to prepare a certain dish. Take a Kentucky Fried Chicken recipe for example. There exists a secret recipe that is used to prepare different KFC meals. No person is allowed to disclose this information to anyone without the consent of the owner or shareholders.
[235] See article 39 of the TRIPS Agreement.
[236] Chidi Oguamanam, 'Wandering footloose: Traditional knowledge and the "Public Domain" revisited' (2018) 21(3) Journal of World Intellectual Property 306.

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Basing the argument on the tiered approach introduced at the WIPO Intergovernmental Committee discussions, Okediji submits that there are various categories of indigenous knowledge: secret, sacred, closely held, and widely diffused indigenous knowledge.[237] She argues that sacred and secret indigenous knowledge can and must be protected through a trade secret, where they are afforded economic and virtue/moral rights. In the case of secret/sacred indigenous knowledge, a trade secret should be used per the principle of patents and competition law.[238] She submits that indigenous knowledge categories may be combined, changing their nature, but that cannot remove the fact that the above categories can exist independently.[239]

In addition, Oguamanam further argues that even though some indigenous knowledge may have fused with other knowledge categories, it may remain sacred or secret.[240] He uses a practical example where the secrecy of indigenous knowledge is displayed.[241] The Ngarrindjeri women near Hindmarsh Island, Australia, conducted a specific business. The authorities had to build a bridge on the island, but the women objected and could not reveal why the area was sacred.

Controversies arose, and the legitimacy of secrecy over the area was contested. However, the women could not reveal more information as it was a secret.[242] Oguamanam submits that the degree of protection concerning secret indigenous knowledge is far above other form of indigenous knowledge. Therefore, trade secrets would be the best option to safeguard the knowledge,[243] as compared to copyrights.

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[237] Ruth Okediji, 'Traditional knowledge and the Public Domain' 14. See also Desmond Oriakhogba and Alero Fenemigho 'Exploring the Intellectual Property, Traditional Cultural Expression, and Gender Dimensions of the Benin Bronze Casting Art: An Agenda for Research' in FFO Orunmwense, et al *National Development and Human Security* (University of Benin, 2019) 84.
[238] *Ibid*.
[239] Chidi Oguamanam, 'Towards a tiered or differentiated approach to protection of traditional knowledge (TK) and traditional cultural expressions (TCEs) in relation to the intellectual property system' (2019) 23 The African Journal of Information and Communication 1 <https://doi.org/10.23962/10539/27533> accessed 20 January 2024.
[240] Chidi Oguamanam, 'Wandering footloose: Traditional knowledge and the "Public Domain" revisited' (2018) 21 The Journal of World Intellectual Property 306 <Wandering footloose: Traditional knowledge and the "Public Domain" revisited - Oguamanam - 2018 - The Journal of World Intellectual Property - Wiley Online Library> accessed 20 January 2024.
[241] See Chidi Oguamanam, 'Grafting Traditional Knowledge onto a Common Law System' (2021) 110(75) The Georgetown Law Journal 76.
[242] Chidi Oguamanam, 'Grafting Traditional Knowledge onto a Common Law System' 89.
[243] Chidi Oguamanam, 'Understanding African and Like-Minded Countries' Positions at Wipo-Igc' (2020) 60(2) The Law Review of the Franklin Pierce Center for Intellectual Property 386.

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From the above discussion, this study argues that trade secrets are also adequate to safeguard indigenous knowledge, specifically in the context of the AfCFTA Agreement. The holders of such knowledge may protect certain aspects of a trade commodity and trade it without disclosing the secret elements of the commodity.[244]

The idea to safeguard indigenous knowledge through copyrights dates back to the 1960s.[245] The idea grew and finally made it through the conference of Stockholm during the Berne Convention revision. Although there were disagreements about what should be included in the Convention about copyrights, it was indicated that if an intellectual work is not published and the author is unknown, the host state shall have the power to register such work in the interests of such a country.[246]

Indigenous people have, over the years, shown their dissatisfaction with how their intellectual works, such as cultural expressions, were being appropriated without their consent. Outsiders needed to obtain the required permission and at least acknowledge the communities from which they attained certain aspects of knowledge.[247] While the victims of these unfortunate events sought to rely on copyright law to protect their interests, it is worth noting the challenges of the regime in safeguarding indigenous knowledge. These challenges vary across authorship, duration, and fixation/non-fixation.

Copyright law emphasises the role played by individuals in knowledge creation. In the process, no acknowledgement has been given to indigenous communities for the knowledge aspect they have developed.[248] The indigenous communities are not rewarded despite contributing to the development of raw resources that contributed to a final copyrighted work.[249] Furthermore, copyrights, like patents, have limits. This means that they can be applicable for a certain period.[250] For the indigenous

[244] The subsequent chapters will explore the international, African regional and national frameworks on trade secrets as a tool to safeguard indigenous knowledge.
[245] Though it was categorized as folklore. See Paul Kuruk, 'Protecting folklore under modern intellectual property regimes: A reappraisal of the tensions between individual and communal rights in Africa and the United States' (1999) 48 Am UL Review 769, 815.
[246] Article 15(4)(a) of the Berne Convention for the Protection of Literary and Artistic Works, September 09, 1986 (the Berne Convention).
[247] See generally, the discussion on Biopiracy in chapter two.
[248] See the Bellagio Declaration, Conference on Cultural Agency/ Cultural Authority, March 11, 1993.
[249] See James Boyle, *Shamans, and Spleens: Law and the construction if the information society* 192.
[250] Article 7 (1) provides that the protection provided for literary and artistic works shall be during the life of the author and fifty-five years after their death. This is applicable where the author of a copyright work is identified. In cases where the author is unknown, and/ or where he/ she cannot be identified,

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communities, this may be detrimental, as they treat indigenous knowledge as a central part of their culture, and, therefore, it should never be released to the public domain.[251]

However, this should not be an excuse to use copyright to safeguard indigenous knowledge. For the other categories of indigenous knowledge outlined by Oguamanam and Okediji,[252] copyright may be relevant to safeguard some form of indigenous knowledge. For example, an indigenous recipe on how to make paint may be helpful to the public. Therefore, the only way the author can get incentives from its use is to copyright the expression of contents or patent the procedure of making the paint. Various African states are beginning to implement the documentation of indigenous knowledge,[253] and therefore, copyright law may be relevant in protecting such works.

Mpanza argues that copyright is used to protect the creation of a specific author, and indigenous knowledge is usually developed by a group of people, making it challenging to use copyright law to safeguard this knowledge. She argues that the requirement to reduce copyright work into a material form is problematic for indigenous knowledge, as an author has to be identified for such work.[254] As this study will show in Chapter Five, an indigenous community can still be an author of indigenous knowledge, and where it cannot be, the proceeds of revenue generated from such a resource should be paid to a trust fund for that community.[255]

Ogwezzy argues that the indigenous communities need to establish an entity that will be vested with rights over a copyrighted work and that the copyrighted work should

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the protection shall be for a duration of fifty-five years after such work has been publicised, same with cinematographic work.

[251] Xoliswa Mpanza, 'Intellectual property laws and the protection of traditional knowledge in South Africa: An evaluation of the current intellectual property system and its protection of traditional and indigenous knowledge' (LLM in Business Law dissertation, University of Kwazulu-Natal 2014) <Xoliswa Mpanza, 'Intellectual property laws and the protection of traditional knowledge in South Africa: An evaluation of the current intellectual property systems and its protection of traditional and indigenous knowledge' (LLM dissertation, University of KwaZulu-Natal 2014) - Search (bing.com)> accessed 03 September 2023.

[252] See discussion in section 3.4.2 above.

[253] For example, South Africa is using the National Indigenous Knowledge Management System.

[254] Xoliswa Mpanza, 'Intellectual property laws and the protection of traditional knowledge in South Africa: An evaluation of the current intellectual property system and its protection of traditional and indigenous knowledge'
36.

[255] See discussion on the Patent Laws Amendment Act 58 of 2002, the implications on the copyright law, of South Africa.

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offer protection.[256] He argues that copyright can protect artistic indigenous work from unauthorised access and use of such work.[257] Furthermore, he argues that performers' rights can be used to safeguard singers, actors, dancers, and other related performances.[258]

Mpanza uses the prevalence of copyright infringement in music to justify her argument that copyright may not be the best IPR regime to safeguard indigenous knowledge.[259] Based on the stance taken by South Africa, as shown in Chapter Five, this chapter hints that the infringement of copyright is not entirely the fault of the legal framework but instead of the law enforcement agencies. If authorities do something to curb infringements, that does not render the provision useless. Copyright exists merely as a substantive law that affords rights to authors. Therefore, law enforcement needs to be strengthened.

Following the above argument and background, safeguarding indigenous knowledge as an IPR is possible, with adjustments needed in various regime aspects as indicated in the criticisms and the submissions above. The AfCFTA Agreement, as an African regional instrument, can integrate multiple legal and policy perspectives, as they appear in various international, African regional, and national instruments, on how to approach the protection of indigenous knowledge to achieve the commercial objectives of the Agreement.[260]

The approaches adopted in the existing regimes for protecting indigenous knowledge are the focus of subsequent chapters. However, it can be noted that the IP Protocol protects different forms of IPR, including indigenous knowledge, but leaves it to state parties to determine specific measures for their protection.[261] The provisions of the IP Protocol, especially related to indigenous knowledge, can be found in articles 18 to 20

[256] Michael Ogwezzy, 'Protection of indigenous or traditional knowledge under intellectual property laws: An examination of the efficacy of copyright law, trade secret, and sui generis rights' (2012) 12(1) International and Comparative Law Review 7.
[257] Michael Ogwezzy, 'Protection of indigenous or traditional knowledge under intellectual property laws: An examination of the efficacy of copyright law, trade secret, and sui generis rights' 24-26
[258] Michael Ogwezzy, 'Protection of indigenous or traditional knowledge under intellectual property laws: An examination of the efficacy of copyright law, trade secret, and sui generis rights' 25.
[259] *Ibid*. She also makes an example of biopiracy that is occurring in the indigenous communities, where indigenous communities discover some useful aspects of a certain commodity, then third parties take advantage and use the said resources as their own inventions.
[260] Chapter four and chapter five explores these instruments.
[261] Article 3 of the IP Protocol.

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of the IP Protocol. The requirements are broadly similar. Therefore, to avoid unwieldiness, the rest of this chapter focuses only on article 18.

Article 18(1) of the IP Protocol states that state parties must protect indigenous knowledge.[262] This is a generic provision where much is left to the member states to develop and implement positive protective measures for indigenous knowledge in the AfCFTA Agreement. From the above-discussed provisions, member states have various options, from using the IP framework, either as it is or an adapted IP framework, to a *sui generis* protection that enjoins multiple options – from civil to criminal procedure, administrative or the fusion thereof.

Article 18(2)(i), (ii), and (iii) of the IP Protocol enjoins state parties to require applicants for all relevant IPR relating to indigenous knowledge to disclose the source of the traditional cultural expressions and expressions of folklore used in the inventions or creations; provide proof of prior informed consent from the competent authorities under national regimes; and provide evidence of fair and equitable benefit sharing agreements under the relevant national law. It is, therefore, essential to outline how the three requirements may be implanted. Reference is made to article 18(4), which provides that to develop rules on the three requirements, reliance must be had on international and regional frameworks focused on development.[263]

Article 8(3) of the IP Protocol provides that member states are to take measures to prevent the misappropriation of IPR in indigenous knowledge. From this, an inference may be drawn that the states recognise that the IP framework can still be used to safeguard indigenous knowledge. Therefore, there is still an option to rely on the IP framework to achieve the economic development goals of the AfCFTA Agreement.

Cooperation by states in sharing best practices on the protection of indigenous knowledge, granting access and benefit sharing (ABS), FPIC, and prior art disclosure is regarded as one of the effective measures to achieve the objectives of the AfCFTA Agreement.[264] The creation of databases for the documentation of indigenous

[262] Article 18(1) of the IP Protocol.
[263] Article 18(4) of the IP Protocol.
[264] See articles 18(5), (6) and (8) of the IP Protocol.

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knowledge will be another method of enforcing the Protocol to achieve the AfCFTA Agreement's objectives.[265]

Article 18(10) of the IP Protocol obligates state parties to comply with additional obligations provided in an Annex to the Protocol on indigenous knowledge.[266] However, the envisaged annex has yet to be adopted. To be effective, such an annex should provide specific guidelines on essential issues, including measures to prevent unauthorised access to indigenous knowledge, measures to implement ABS, FPIC, and prior art disclosure, and other measures to protect indigenous knowledge. In this regard, state parties must decide on the specific approach to adopt.

To this end, it is essential to draw inspiration from existing national, regional, and international approaches for the development of the annex. As is apparent in subsequent chapters, existing national, regional, and international legal frameworks for indigenous knowledge have adopted either sui generis protection or protection through conventional IP frameworks. These approaches and the specific contents are discussed in subsequent chapters. Indeed, chapters four and five explore the legal and Policy Framework for the Protection of Indigenous Knowledge to develop and implement measures that will ensure effective implementation of the protocol for protecting indigenous knowledge with the AfCFTA Agreement.

3.5. Conclusion

This chapter explored and examined Regional Economic Communities (RECs), which are the foundation of trade facilitation in the African continent. While these RECs frameworks do not mention indigenous knowledge *per se*, their constant reference to “traditional, local, and cultural” reflects the potential of indigenous knowledge as a tool for economic development. As part of the economic integration objectives of these RECs, an RTA like the AfCFTA Agreement has been established, presenting an opportunity to integrate indigenous knowledge within this trade framework.

Furthermore, despite the challenges of aligning trade-related IP principles with the indigenous knowledge systems, trade agreements frameworks, offer an opportunity to

[265] See article 18(7) and (9) of the IP Protocol.
[266] See also article 42(1)(h).

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protect indigenous knowledge, mainly due to their reference to indigenous elements, and the existence of its support structures such as the RECs. Lastly, scholarship explored in the chapter supports the use of trade agreements to protect indigenous knowledge.[267]

To effectively protect indigenous knowledge in the context of the AfCFTA Agreement, the IP Protocol is to be used. It was outlined that the IP Protocol offers an opportunity to protect indigenous knowledge.[268] However, in its current form, it does not comprehensively protect indigenous knowledge. Thus, there is a need to develop specific rules, whose development this study seeks to guide.[269] The next chapter explores legal framework and relevant academic literature, to distil measures for protecting indigenous knowledge within the IP Protocol to the AfCFTA Agreement.

[267] See discussion in section 3.4.1 above.
[268] See discussion in 3.4.2. above.
[269] *Ibid*.

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CHAPTER FOUR

ANALYSIS OF THE INTERNATIONAL AND AFRICAN REGIONAL FRAMEWORKS FOR SAFEGUARDING INDIGENOUS KNOWLEDGE

4.1. Introduction

This chapter explores the legal and policy regimes for safeguarding indigenous knowledge to develop specific measures to safeguard indigenous knowledge in the context of the Agreement Establishing the African Continental Free Trade Area (AfCFTA Agreement). These measures are guidelines for implementing the IP Protocol. The frameworks range from economic, environmental, cultural, agricultural, and other fields closely related to indigenous knowledge. Although most do not directly refer to or explicitly mention the term indigenous knowledge, their reference to dimensions related to indigenous knowledge, such as natural, biological and genetic resources, and expressions of folklore, culture, and artistic works, make them relevant in the context of this chapter.

This chapter explores and examines the international and African regional frameworks that are concerned with development. Exploration of these frameworks guides this chapter and hints at possible measures that could be useful in developing specific rules/guidelines for implementing the IP Protocol.

4.2. International frameworks

4.2.1. World Intellectual Property Organization Treaty on Intellectual Property, Genetic Resources and Associated Traditional Knowledge 2024[1]

The negotiations by WIPO that lasted over a decade finally resulted in the first Treaty safeguarding traditional knowledge, genetic resources, and intellectual property.[2] This Treaty was adopted on 24 May 2024 at WIPO's Diplomatic Conference on Genetic

[1] WIPO Treaty on Intellectual Property, Genetic Resources and Associated Traditional Knowledge 2024 (2024) <WIPO Member States Adopt Historic New Treaty on Intellectual Property, Genetic Resources and Associated Traditional Knowledge> accessed 24 May 2024.

[2] Chidi Oguamanam, 'The new WIPO genetic resources and associated traditional knowledge: A symbolic and modest step toward an inclusive and just IP system' (2024) ABS Canada <The New WIPO Genetic Resources and Associated Traditional Knowledge Treaty: A Symbolic and Modest Step toward an Inclusive and Just IP System - ABS Canada (abs-canada.org)> accessed 24 May 2024.

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Resources and Associated Traditional Knowledge in Geneva, Switzerland.[3] However, adopting the Treaty does not mean completing WIPO's work in developing international instruments for the protection of indigenous knowledge viewed broadly. With the adoption of the Treaty, the WIPO Intergovernmental Committee (IGC) will have to continue its work to negotiate and adopt international instruments for traditional knowledge (viewed narrowly) and traditional cultural expressions or folklore.

Even so, the adopted Treaty recognises including indigenous and local people in decision-making processes concerning genetic resources and the associated indigenous knowledge.[4] Oguamanam[5] indicates that the negotiations are to continue, and it is possible to open up the domestication of its rules soon. Once ratified by at least 15 states,[6] the Treaty will regulate patent applications based on genetic resources and the associated indigenous knowledge.[7] Membership in this Treaty is open to any country.[8]

The Treaty seeks to strengthen the patent system for safeguarding genetic resources and associated indigenous knowledge.[9] A patent application must disclose the country of origin, where applicable, or otherwise the source of a resource and where genetic resources have been used.[10] The same should apply when indigenous knowledge has been used.[11] Parties to the agreements are to decide how disclosure should be executed, and they should allow each other an opportunity to rectify access agreements with all the parties responsible for verifying the applications.[12]

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[3] *Ibid*.
[4] n 1 above.
[5] Chidi Oguamanam is part of the Diplomatic Conference, thus his work becomes reliable and important for this study. He is a Principal Investigator at ABS Canada.
[6] See article 1 of the World Intellectual Property Organisation Treaty on Intellectual Property, Genetic Resources and Associated Traditional Knowledge.
[7] n 1 above.
[8] Article 12 of the World Intellectual Property Organisation Treaty on Intellectual Property, Genetic Resources and Associated Traditional Knowledge.
[9] Article 1 of the World Intellectual Property Organisation Treaty on Intellectual Property, Genetic Resources and Associated Traditional Knowledge.
[10] Article 3(1) of the World Intellectual Property Organisation Treaty on Intellectual Property, Genetic Resources and Associated Traditional Knowledge.
[11] Article 3(2) of the World Intellectual Property Organisation Treaty on Intellectual Property, Genetic Resources and Associated Traditional Knowledge.
[12] See article 3(3), (4), (5) and (6) of the World Intellectual Property Organisation Treaty on Intellectual Property, Genetic Resources and Associated Traditional Knowledge.

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In addition to an opportunity to rectify a patent application, state parties are to impose other measures that they deem fit.[13] This may be in cases of fraud and misrepresentation.[14] They may also impose measures such as sanctions and penalties.[15] Furthermore, member states are to create databases for storing information related to genetic resources and associated indigenous knowledge.[16] These databases should be created in consultation with the indigenous people to ensure they can access the information.[17]

4.2.2. The Convention on Biological Diversity

The Convention on Biological Diversity (CBD) is one of the international frameworks premised on the development principle. The CBD remains one of the most critical international frameworks for development, particularly in indigenous communities, where genetic resources are integral to their daily lives. This section explores this framework and hints at possible principles to be distilled to achieve the objectives of this study.[18] The objectives of this Convention are to conserve diverse biological resources for sustainable use. This process will include equitable access and sharing benefits from using such resources.[19] Furthermore, the CBD encourages the promotion of the rights of indigenous knowledge holders.[20]

The conservation of natural resources and the associated indigenous knowledge was considered the most effective way to curb the continued rapid use of biological resources, mainly without a permit by the host state.[21] The growing population meant the environment had to provide more food and ensure health standards. Therefore, the conservation of these resources was encouraged. It must be noted that indigenous

[13] Article 5(1) and (2) of the World Intellectual Property Organisation Treaty on Intellectual Property, Genetic Resources and Associated Traditional Knowledge.
[14] Article 5(2) of the World Intellectual Property Organisation Treaty on Intellectual Property, Genetic Resources and Associated Traditional Knowledge.
[15] Article 5(4) of the World Intellectual Property Organisation Treaty on Intellectual Property, Genetic Resources and Associated Traditional Knowledge.
[16] Article 6 of the World Intellectual Property Organisation Treaty on Intellectual Property, Genetic Resources and Associated Traditional Knowledge.
[17] *Ibid*.
[18] Thus, safeguarding indigenous knowledge within the IP framework of the AfCFTA Agreement.
[19] Article 1 of the CBD.
[20] *Ibid.*
[21] See the Preamble to the CBD. The conservation thus, was designed to ensure that the biosphere is sustained, and not only consider the cultural, economic and recreational benefits the biosphere can offer to humankind and other living organisms.

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knowledge covered in this instrument is only closely related to genetic resources.[22] The Nature Conservancy Recommendations state that the use of IP and the involvement of the indigenous community contribute to the attainment of the objectives of the CBD, therefore contributing to sustainable development.[23]

Article 3 of the CBD provides that each state has sovereign powers over its natural resources, meaning it can control them anyhow it wants.[24] On this premise, the CBD contains a provision on conservation and sustainable use of the resources, where the state has to identify and monitor the measures designed to conserve genetic resources, which are premised on the principles of equitable ABS of any technology related to these resources.[25]

Article 6 provides that member states are obliged to develop strategies or plans to ensure that people do not abuse their access to genetic resources contrary to attaining sustainable development goals.[26] These plans or strategies must be integrated into various sectors where these resources are applicable.[27] This can be in medicine, food production, trade, and environmental conservation. Therefore, conserving indigenous resources would positively affect the intra-African trade in indigenous knowledge and the associated indigenous knowledge, among other commodities.

In designing protective measures, article 6(a)(i) of the CBD requires that member states single out those components of biological diversity that are a cornerstone for biological conservation and sustainable use.[28] Article 6(a)(ii) provides that monitoring these plans and strategies would be achieved through sampling and evaluation.[29] The procedure would be to focus more and first on those aspects that require urgent attention and those with the potential to contribute to the sustainable use of these

[22] Sindhu Kannaiyan, 'Biological Diversity and Traditional knowledge' (2007) Paper discussed at the National Consultation Workshop on Agro biodiversity hotspots and access and benefit sharing held on the 19th-20th of July 2007 at the Annamalai University <BIOLOGICAL DIVERSITY AND TRADITIONAL KNOWLEDGE ** (nbaindia.org)> accessed 24 May 2024.
[23] The Nature Conservancy, 'The Nature Conservancy Recommendations: Indigenous Peoples & Local Communities and Traditional Knowledge Policy Paper' (2021) <IPs & LCs Policy Paper (nature.org) > accessed 24 May 2024.
[24] See article 3 of the CBD.
[25] See articles s 6 and 7 of the CBD.
[26] Article 6 of the CBD.
[27] *Ibid*.
[28] Article 6(a)(i) of the CBD
[29] Article 6(a)(ii) of the CBD

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resources compared to others.[30] The monitoring process, therefore, depicts the mechanism of the data analysis process. Concerning indigenous knowledge, this would help answer what, how, and when questions on the safeguarding of indigenous knowledge.

Furthermore, article 7 of the CBD requires the member states to establish a system that identifies various protected areas where there is a need to implement special protective measures to conserve biological diversity.[31] States are required to develop criteria for selecting, establishing and managing the said protected areas;[32] to regulate all the biological resources, whether they fall under the unique resources or not;[33] to promote the protection of genetic resources and the maintenance of ecosystems and habitats;[34] to promote the safety and maintenance of areas that are within close range of the protected areas;[35] to ensure that the degraded ecosystems are restored;[36] to generate funds and other means to ensure the execution of these strategies and plans for conservation;[37] to eradicate and prevent further invasion of alien species that would threaten the biological lives of the existing biological resources in a particular environment;[38] and, where necessary, develop legislation to regulate the access to and sustainable use of biological resources.[39]

Given the historical debates about the West accessing natural resources and the associated knowledge and the Global South restricting such access, the CBD, therefore, comes into place to settle these differences.[40] It tries to bring a balance between access to biological resources and the associated knowledge while ensuring equitable benefit-sharing for the providers of such resources and related expertise. However, the main goal is to ensure that the Global South benefits from the revenue made from the indigenous resources. It promotes respect for indigenous knowledge,

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[30] *Ibid*.
[31] Article 7(a) of the CBD.
[32] Article 7(b) of the CBD.
[33] Article 7(c) of the CBD.
[34] Article 7(d) of the CBD.
[35] Article 7(e) of the CBD.
[36] Article 7(f) of the CBD.
[37] Article 7(h) of the CBD.
[38] Articles 7(i) of the CBD.
[39] Articles 7(k) of the CBD.
[40] See Paul Kuruk, 'The role of customary law under sui generis frameworks for intellectual property rights in traditional and indigenous knowledge' (2007) 17 Indiana International and Comparative Law Review 67.

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the inclusion of the holders of indigenous knowledge associated with genetic resources, and the broader use of indigenous knowledge, practices, and innovations related to genetic resources.

Article 10(c) provides that state parties are to promote the customary use of biological resources in a manner that upholds the cultural practices meant to ensure sustainability.[41] The CBD Secretariat states that such customary practices are synonymous with knowledge, innovations, and practice, as provided in article 8(j) of the CBD.[42]

The CBD instils the idea that sustainable development would be ensured if indigenous knowledge and associated genetic resources were used in sustainable and conservation-oriented methods of the indigenous communities. As much as the CBD recognises the state's sovereignty over their natural resources, an essential aspect of the Convention is the need for the states to ensure that conditions are created to govern access to genetic resources and associated indigenous knowledge sustainably.[43] Article 15(2) emphasises that such access should be based on the FPIC rule[44] and mutual agreement.[45]

The CBD Secretariat highlights that access to genetic resources cannot be separated from indigenous knowledge because this knowledge can help discover a new variety of genetic resources.[46] Renewable resources belonging to the indigenous communities should be repatriated to ensure sustainability.[47]

Hossain and Ballardini argue that as much as the CBD recognises the need to safeguard the intellectual interests of indigenous communities in indigenous knowledge and related genetic resources, the states also have sovereign rights over natural resources.[48] As a result, there ought to be a balance between the two

[41] Article 10(c) of the CBD.
[42] The Secretariat of the CBD, 'What the Convention says about Traditional Knowledge, Innovations and Practices' (2010) Convention on Biological Diversity <What the Convention says about Traditional Knowledge, Innovations and Practices (cbd.int)> accessed 24 May 2024.
[43] See article 15(2) of the CBD.
[44] Article 15(5) of the CBD. The contracting parties are encouraged to ensure such access is concluded on mutually agreed terms.
[45] See further article 15(6) of the CBD.
[46] *Ibid*.
[47] n 45 above.
[48] Kamrul Hossain and Rosa Maria Ballardini, 'Protecting Indigenous Traditional Knowledge Through a Holistic Principle-Based Approach' 65.

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conflicting rights. This indicates that a single-sided approach to safeguarding indigenous knowledge is nearly impossible. Instead, a blended approach should be used to represent all concerned stakeholders' interests adequately.

While the CBD promises to help develop guidelines to safeguard indigenous knowledge in the context of the AfCFTA Agreement, the Convention did not comprehensively elaborate on how the benefit sharing, FPIC, and equitable access and sharing of benefits could be implemented.[49] For this reason, the Conference of Parties engaged in roundtable conversations where the Bonn Guidelines were adopted to prevent doubt in their acceptance globally.[50] Therefore, the following section examines and expands on the provisions in the CBD to elaborate on how ABS, prior art disclosure, and FPIC may be used to safeguard indigenous knowledge in the trade context of the AfCFTA Agreement.

4.2.3. The Bonn Guidelines on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising Out of Their Utilization[51]

These guidelines aim to consolidate measures that may be used to implement the FPIC, ABS, and prior informed consent principles to safeguard indigenous knowledge for the commercial purposes of the AfCFTA Agreement. This chapter explores these guidelines as a framework that can promote the national development of states, as also required by the IP Protocol.[52]

Tully notes that the Bonn Guidelines ideally strengthen the protection of genetic resources and associated indigenous knowledge.[53] Article 1 provides that the guidelines may be used to develop administrative, legal, and policy guidelines for implementing access to benefit sharing, FPIC, and other mutual agreements, as the

[49] Paul Kuruk holds the same viewpoint. See Paul Kuruk, 'Regulating access to traditional knowledge and genetic resources: The disclosure requirement as a strategy to combat biopiracy' (2015) 17(1) San Diego International Law Journal 3.
[50] Secretariat of the Convention on Biological Diversity, 'Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their Utilization' (2002) <Bonn Guidelines on access to genetic resources and fair and equitable sharing of the benefits arising out of their utilization (cbd.int)> accessed 23 May 2024. See also Paul Kuruk, 'Regulating access to traditional knowledge and genetic resources: The disclosure requirement as a strategy to combat biopiracy' 21.
[51] Hereinafter the Bonn Guidelines.
[52] See article 18(4) of the IP Protocol
[53] Stephen Tully, 'The Bonn Guidelines on Access to Genetic Resources and Benefit Sharing' (2003) 12(1) RECIEL 84 <REEL_345.fm (cbd.int)> accessed 24 May 2024.

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CBD requires.[54] The Guidelines apply, among other things, to "indigenous knowledge, innovations and practices" as in the CBD.[55] The Bonn Guidelines seek to ensure the conservation and sustainability of biological diversity and proper facilitation and implementation of the FPIC and ABS.[56] This will be ensured through awareness, financial resources, house mechanisms, technology, institutional capacity-building, material and human resources, training, research, and IPR.[57]

Article 13 requires state parties to designate a specific national point where benefit sharing will be overseen.[58] All the information related to such activity should be available to the public. This would be achieved through a clearing-house mechanism, where other state parties may have access to the information.[59] This results in the exchange of information regarding a particular issue.

Such an established focal point would need to promote ABS, prior informed consent, and FPIC by ensuring the public knows what these principles mean and how they affect them.[60] Furthermore, the article mentions that the competent authorities and indigenous communities must be educated on implementing these principles.[61]

As a focal point would have been established, a negotiating process must be laid out; the requirements for prior informed consent and mutual agreement must be provided for; the agreements would need to be monitored often; there must be implementation agreements to be entered into by member states; a procedure on how agreements' applications be entered into and about genetic resources related to indigenous knowledge; and there must be promotion of conservation and the sustainable use of resources.[62]

Participation of relevant and effective stakeholders, such as the indigenous communities, would need to be ensured.[63] This means the indigenous communities must be accommodated in all that is done. This can be in the form of decision-making

[54] Article 1 of the Bonn Guidelines.
[55] Article 9 of the Bonn Guidelines.
[56] Stephen Tully, 'The Bonn Guidelines on Access to Genetic Resources and Benefit Sharing' 84, 90.
[57] Article 11 of the Bonn Guidelines.
[58] Article 14 of the Bonn Guidelines.
[59] *Ibid*.
[60] n 58 above.
[61] *Ibid*.
[62] Article 14 of the Bonn Guidelines.
[63] Article 14(g) of the Bonn Guidelines.

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processes. Furthermore, the power of the authority to grant prior informed consent may delegate these powers to any other person.[64]

The country of origin may need to review its policy and legislative measures and align them with the CBD, particularly article 15.[65] Member states may need to report to the competent authority the status of the applications for ABS.[66] The safeguarding of indigenous knowledge in the context of this study is for commercialisation after that. Therefore, the provisions of article 16(a)(iii) of the Bonn Guidelines are helpful where commercialisation is required to support the indigenous use of genetic resources.[67] This is in line with the viewpoint of this study that there should not be a total restriction to accessing indigenous knowledge but relatively controlled access, where those who invent ideas stand to benefit by requiring third parties to pay the price for their access to these resources.

In this case, the intellectual property rights theory and the rewards theory would justify incentivising indigenous communities. Supported by the utilitarian theory, such access would result in great satisfaction for the indigenous communities that benefit from it. In accessing these resources, conservation and sustainable development must be considered.[68] To ensure that the commercialisation of indigenous knowledge continues, tangible indigenous knowledge must be ensured such that these resources exist for future generations.

To access natural resources and the associated indigenous knowledge, FPIC must be obtained before such access can be made.[69] Those using these resources must respect the indigenous communities' traditions, customs, customary practices, and values.[70] The indigenous communities may have concerns about access to their indigenous resources. Therefore, the users should respond to these queries by the indigenous communities.[71]

[64] Article 15 of the Bonn Guidelines.
[65] Article 16(a) of the Bonn Guidelines.
[66] Article 16(a)(iii) of the Bonn Guidelines.
[67] *Ibid*.
[68] Article 16(a)(v) of the Bonn Guidelines.
[69] Article 16(b)(i) of the Bonn Guidelines.
[70] Article 16(a)(ii) of the Bonn Guidelines.
[71] Article 16(a)(iii) of the Bonn Guidelines.

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In cases where genetic resources are used, such must align with the condition in which they were acquired.[72] This is to guard against third parties obtaining resources from the indigenous communities and then using them for their benefit, where the indigenous communities may not benefit.[73] Arguably, this would achieve the objective of the biopiracy theory, which advocates using biological resources in the manner they are meant for, according to agreements. There should also be a recording of documentary evidence that such FPIC and prior informed consent agreements have been entered into.[74]

Only a person with authority may enter into an FPIC and access and benefit-sharing agreement with respect to indigenous knowledge and associated natural/genetic resources.[75] In other words, third parties should only claim to own an aspect of indigenous knowledge and sell the same with the consent of the real owners, indigenous communities in this case. In the regulation process, providers should ensure that their restrictions on access do not entirely restrict people from accessing knowledge/resources.[76]

Furthermore, the Bonn Guidelines state that the contracting states must ensure that the contracted resources are used for the agreed purposes.[77] This prevents third parties from obtaining consent over a specific resource and using it for another purpose not agreed to, from which the contracting party/provider would not benefit, therefore defying the objectives of the FPIC agreement. The providers could ensure compliance by disseminating information to users and potential users, explaining how a resource is supposed to be used, and addressing other ancillary obligations thereof.[78]

The providers could also ensure that the public knows the FPIC principles through awareness campaigns.[79] The authorities may introduce measures that prevent those

[72] Article 16(a)(iv) of the Bonn Guidelines.
[73] Resources may be used for something they were not initially obtained for, only when a prior informed consent has been granted. See article 16(a)(v) of the Bonn Guidelines.
[74] Article 16(a)(vi) of the Bonn Guidelines.
[75] Article 16(c)(i) of the Bonn Guidelines.
[76] Article 16(c)(ii) of the Bonn Guidelines.
[77] Article 16(d) of the Bonn Guidelines.
[78] Article 16(d)(i) of the Bonn Guidelines.
[79] Article 16(d)((ii) is open and leaves the concerned parties to consider other measures of information dissemination. This could include public access to information, public lectures, and offering classes on aspects of FPIC and other related principles.

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who did not obtain FPIC from using resources for any reason.[80] This could include non-certification of end products by relevant bodies.[81] States are expected to cooperate in the process of dealing with infringements. For example, when an infringer is from South Africa and has infringed a right of an indigenous community in Ghana or Nigeria, the rules of procedure and avenues to seek a remedy may differ. Therefore, the states may need to cooperate to enforce the rights of the concerned parties.

For the states complying with the principles, the competent authorities may issue certificates of competence.[82] In this way, other prospective contractors may know that their counterparts adhere to the law. Otherwise, it would indicate that an institution needs to follow the proper production and trading procedures. The law of competition may also be used to strengthen the access and benefit-sharing principles.[83] In this way, institutions that are unlawfully appropriating these resources without the consent of the holders (indigenous communities), and therefore paying no share to them (indigenous communities) and generating more revenue, could be banned from production and trading in these resources or the end product thereof.

Involving the primary stakeholders in the subject matter (indigenous knowledge) is essential for developing guidelines to implement access and benefit-sharing agreements.[84] In this case, indigenous communities are the primary stakeholders concerned with indigenous knowledge. The challenge is that many indigenous communities are diverse in culture, practices, and customs. As a result, it is vital to ensure that each case is treated on its merits. Legal and scientific assistance must be provided to the indigenous communities so that they can understand the technical aspects of these agreements.[85]

The indigenous communities, either as a whole or through representatives, could be capacitated with all other necessary knowledge about their rights and the agreements

[80] See article 16(d)(iii) of the Bonn Guidelines.
[81] For example, if it is food produced from genetic resources and indigenous knowledge, a body that deals with certification of food could halt production and regard the already produced goods null and void. Same with medicinal products, a body that deals with medicines, health or similar, could invalidate the end products and cause the user to pay fines proportional to their infringement of the rules.
[82] Article 16(d)(v) of the Bonn Guidelines.
[83] Article 16(d) of the Bonn Guidelines.
[84] Article 17 of the Bonn Guidelines.
[85] Article 20(a) of the Bonn Guidelines.

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to be entered into.[86] Most importantly, indigenous people/communities should be present in the programmes to determine the customary rules for implementing ABS. This would foster the recognition of customary laws in safeguarding indigenous knowledge.

The Bonn Guidelines provide that an impartial mediator be appointed to adjudicate and help the parties reach an agreement amicably.[87] Before obtaining consent/reaching an agreement, there must be activities to ascertain the use of a subject matter, the research development involved, and how much it is to be commercialised, including other uses of indigenous knowledge.[88]

The basic principles governing benefit sharing are clarity and legal certainty, minimised costs, transparent restrictions, and consent.[89] It can only be a rational agreement if legal terms are clearly stated. Indigenous knowledge as an IPR may include legal terms that need clarification. Furthermore, it would serve its purpose if these agreements were to be concluded at a minimised cost. The AfCFTA Agreement seeks to promote economic development.

Therefore, there must be lower costs during the pre-production stage of an indigenous knowledge-based resource. Furthermore, the restrictions created by an agreement must be clear. This would also prevent future litigation/disputes caused by unnecessarily breaking boundaries. Lastly, consent must be freely obtained from the indigenous communities and the competent authorities.

The content of access and benefit-sharing agreements should specify how consent is to be proved, the period, specifications, procedures, and consultation mechanisms.[90] Only the party providing indigenous knowledge-related resources should be able to grant consent to third parties.[91] The consent must be obtained only through a competent authority unless the contracting party has determined otherwise.[92] Contracting parties may designate the powers from national, provincial, and local

[86] Article 20(b)of the Bonn Guidelines.
[87] Article 21 of the Bonn Guidelines.
[88] See article 22 of the Bonn Guidelines.
[89] See article 26 of the Bonn Guidelines.
[90] Article 26 of the Bonn Guidelines.
[91] Article 28 of the Bonn Guidelines.
[92] Article 29 of the Bonn Guidelines.

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levels. In the context of the AU, there may be levels of governance where such agreements would be concluded if not centralised on the AU itself. The contracting parties are supposed to consider the indigenous communities' rights, which emanate from the right to culture and development and other socio-economic obligations and entitlements.[93]

To give enough time to the authorities to decide and provide feedback within a reasonable time, the applications for FPIC should be sought in advance.[94] This can be achieved by giving a pre-application notice that an application will be made on a specific date. Furthermore, upon the consent being granted, the user should use it according to its terms.[95] With policing, this requirement may be adhered to. As a result, the competent authorities may introduce monitoring processes where the users are examined to determine whether they are using the resources as per the FPIC agreement. Only when a further agreement is made will a user use a resource for what was not initially agreed to.[96]

To determine whether access to genetic and indigenous knowledge-related resources should be granted, the competent authority may follow the following procedures as outlined in the Bonn Guidelines:[97] The applicant ought to furnish the authority with their affiliation, and in cases where such an applicant is an agent of/or an institution, the contact of such person should be provided.[98] Also, the type and quantity of a resource over which FPIC is sought must be provided.[99] For example, the application should indicate that company X is seeking consent to use the rooibos plant at an average of one thousand kilograms monthly.

It is provided that the user must indicate the period during which they wish to exercise control and use a particular resource.[100] The applicant/user must also indicate the geographical area where such exercise of a resource is to occur.[101] In cases where

[93] Article 32 of the Bonn Guidelines.
[94] Article 33 of the Bonn Guidelines.
[95] Article 34 of the Bonn Guidelines.
[96] *Ibid*.
[97] Article 36 of the Bonn Guidelines.
[98] Article 36(a) of the Bonn Guidelines.
[99] Article 36(b) of the Bonn Guidelines.
[100] Article 36(c) of the Bonn Guidelines.
[101] Article 36(d) of the Bonn Guidelines. The geographical area requirement also corresponds with the geographical indication category of IPRs.

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such access may affect the environment,[102] there must be an evaluation of the impact of such access on the sustainable use of such resources. This is done to estimate the costs to be attached to the access.[103] The applicant must also specify the purpose of seeking FPIC over indigenous knowledge and related genetic resources.[104]

The application should disclose all the other parties concerned with the subject matter.[105] The applicant must also elaborate on how the provider benefits from an FPIC agreement since the negotiation may be concerned with secret information about the indigenous people; articles 14(h) and 36(o) help by requiring that (some) information may need to be treated confidentially.[106] The access application should also be documented in a written form.[107]

When the competent authority grants access, a licence should be issued,[108] while such is recorded in the registration system.[109] Ben-Shahar provides a licence to use IPR, an agreement that a third party may use an IPR belonging to someone without owning it.[110] Although such licences are beneficial for several reasons, including but not limited to increased income, marketing, and market infiltration, there are some setbacks.[111] For example, one has less control over what the licensee may do with the subject matter despite indicating the extent to which the licensee may use the subject matter in the agreement.[112]

Failure of the licensee to generate income also affects the licensor. Furthermore, any use of a subject matter by the licensee implicates the licensor, so there is a growing

[102] In cases of indigenous knowledge related to the nature.
[103] Article 36(e) of the Bonn Guidelines.
[104] Article 36(f) of the Bonn Guidelines. For the purpose of this study, an application must indicate that FPIC is sought for commercialisation purposes.
[105] This may include community leaders, local authorities, and third parties etc. See articles 36(i) and (j) of the Bonn Guidelines.
[106] Articles 14(h) and 36(o) of the Bonn Guidelines.
[107] See article 38 of the Bonn Guidelines.
[108] Article 39 of the Bonn Guidelines.
[109] Article 39 of the Bonn Guidelines.
[110] See Tarun Jain, 'Compulsory licences under TRIPS and its obligations for member countries' (2009) 8(1) ICFAI Journal of Intellectual Property Rights <Compulsory Licences of Intellectual Property: A survey by Tarun Jain :: SSRN> accessed 25 May 2024; See also Omri Ben-Shahar, et al, 'Licensing of Intellectual Property' (2011) 78(1) University of Chicago Law Review <Licensing of Intellectual Property (uchicago.edu)> accessed 25 May 2024.
[111] Hart David Carson, 'Advantages and setbacks of licensing intellectual property' (2020) <Advantages and Drawbacks of Licensing Intellectual Property — Firm News & Legal Updates — January 2, 2020 (hartdavidcarson.com)> accessed 25 May 2024.
[112] *Ibid*.

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risk of causing conflicts between the licensor, licensee, and the general public. Therefore, licensing indigenous knowledge and associated resources should be done with caution. How indigenous knowledge and related resources have been misappropriated indicates the importance of this knowledge and the resources. Therefore, it is likely that access to this knowledge and associated resources will be affected by the unethical behaviour of the public. Accordingly, it should be apparent that protective measures such as sanctions, fines, and prosecution from the agreement will be imposed. This can only be done if a legal instrument imposes such measures. Furthermore, the competent authority should make the access application process accessible to everyone interested.[113]

Article 15 of the CBD provides that access to fair and equitable sharing should be concluded based on mutual agreement terms.[114] The Bonn Guidelines suggest various ways in which mutual agreement can be successful.[115] There should be legal certainty and clarity in the terms so agreed.[116] When considering the cut in transaction costs, the relevant authority must establish and promote the prerequisites for FPIC and mutual agreement terms and conditions and the existing procedures for access, including the conclusion of the accords and benefit sharing.[117]

The relevant authority may also design a framework that will work continually. In this case, an ABS created by the AU in the AfCFTA context should be designed to constantly govern how indigenous knowledge is accessed, therefore ensuring sustainable development of the continent through both resources and protective measures.[118]

The relevant authorities may also develop agreements that govern how material/resources are transferred from one territory to another, where such resources are used similarly in both territories.[119] A contractual agreement indicating different purposes of a subject matter sought to be accessed[120] maybe applicable in the context

[113] Article 40 of the Bonn Guidelines. For example, treating every applicant equally regardless of their affiliation, social or political status.
[114] Article 15 of the CBD.
[115] See articles s 42-45 of the Bonn Guidelines.
[116] Article 42(a) of the Bonn Guidelines.
[117] Article 42(b)(iii) of the Bonn Guidelines.
[118] *Ibid*.
[119] Article 42(b)(iv) of the Bonn Guidelines.
[120] See article 42(d) of the Bonn Guidelines.

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of the AfCFTA Agreement. This is because although this FTA is concerned (at least under the scope of this study) with the commercialisation of indigenous knowledge,[121] at some stage, there may be a need to engage in research, collection, or taxonomy of a specific aspect of indigenous knowledge.[122] Therefore, a contractual agreement would govern how such specifications should be made. Lastly, the terms should be concluded within a reasonable time.[123]

The contractual agreements could include information on how a resource and associated knowledge should be used and ethical issues to be considered.[124] The agreements should ensure that despite such access by third parties, the resources will still be used continually and according to the customs/norms of a specific indigenous community, promoting sustainable use of indigenous resources. Where IPR is used, in line with articles 18(2), (3), and (4) of the IP Protocol, the Guidelines suggest that there should be a provision that encourages joint ownership and lease.[125] In this manner, the indigenous communities could co-own IPR over their indigenous knowledge and related resources.

The type of benefits should be indicated in the agreements. These may be either monetary or non-monetary.[126] For monetary benefits, the following (but not limited to these) may be used: access fees, advance payments, continual payments, royalties' payment, commercial license fees, special fees, research fees, joint ownership of IPR, and joint ventures.[127] For non-monetary benefits, article 2 of Appendix II of the Bonn Guidelines provides that they may include the following: collaborating and sharing the outcomes of research and resource development; collaborating in educational and training initiatives; creating databases; fair and favourable terms-based transfer of indigenous knowledge and technology; and capacity-building, where human labour and material resources will be used to strengthen the enforcement of access rules and regulations. An (access and benefit-sharing) agreement must also indicate how long the provider will enjoy the benefits.[128]

[121] See articles 23(d) and (e), and 26(4) of the IP Protocol.
[122] Article 42(e) of the Bonn Guidelines.
[123] Article 42(f) of the Bonn Guidelines.
[124] See article 43(a) of the Bonn Guidelines.
[125] See articles s 43(c) and (d) of the Bonn Guidelines.
[126] See article 46 of the Bonn Guidelines.
[127] Article 1 of Appendix II of the Bonn Guidelines.
[128] Article 47 of the Bonn Guidelines.

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The access and benefit-sharing system should be designed not to impose arbitrary incentives that could hinder conservation and sustainable use (of biological resources).[129] In other words, incentives that are not realistic may encourage people or institutions to commit unlawful acts of obtaining access to indigenous knowledge-related resources and should, therefore, be prevented. Valuation methods should be used to inform the users and providers of any information relevant to the benefit-sharing agreements.[130] Furthermore, markets can be used as a tool to achieve sustainable use of the resources.[131] The settlement of disputes should be provided in the agreements, including the penalties for non-compliance.[132]

While not disregarding the importance of the Bonn Guidelines for any reason, including their non-binding nature, the following section acknowledges the affirmation of these guidelines in a more binding legal instrument: the 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 (Nagoya Protocol).

4.2.4. The Nagoya Protocol[133]

To achieve the CBD's third objective – ensuring a fair and equitable sharing of benefits accrued from using genetic resources and the associated knowledge – the World Summit on Sustainable Development (held in 2002) advocated developing an international framework.[134] In 2004, member states of the CBD agreed that there should be a working group to address access to genetic resources and indigenous knowledge and achieve the CBD's objectives. After six years of negotiation, the Nagoya Protocol was adopted in Nagoya, Japan 2010.[135] The Protocol applies to states that are member states of the CBD.[136]

[129] See article 51 of the Bonn Guidelines.
[130] Article 51(c) of the Bonn Guidelines.
[131] Article 51(d) of the Bonn Guidelines. A regulated market would ensure that providers are trading in an accepted manner, without exploiting the resources.
[132] See articles s 59-61 of the Bonn Guidelines.
[133] 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 <nagoya-protocol-en.pdf (cbd.int)> accessed 24 May 2024.
[134] See introduction, the Nagoya Protocol.
[135] *Ibid*.
[136] Preamble to the Nagoya Protocol.

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This Protocol provides a legal framework for implementing ABS of genetic resources and indigenous knowledge.[137] The Protocol recognises the need to consider the rights of the individuals closely connected with the resources.[138] – the indigenous people in this case. In addition, the Nagoya Protocol introduces four aspects: a global benefit-sharing system, global cooperation, domestic framework compliance, and a financial mechanism.

Article 3 of the Nagoya Protocol applies to genetic resources and associated indigenous knowledge.[139] Article 4 recognises the autonomy in entering into further agreements promoting access and equitable benefit sharing of benefits accrued from genetic resources and associated indigenous knowledge.[140] This provision benefits states that are members of the CBD, as they can enter into other agreements, such as the AfCFTA Agreement, which, through the IP Protocol, promotes fair and equitable access to indigenous knowledge and associated genetic resources.[141]

The benefits of using genetic resources and associated indigenous knowledge must be shared with the country where such resources or knowledge originate, or if an individual is known, with such an individual.[142] These benefits may be either monetary or non-monetary.[143] An important pronunciation is that these benefits must be shared based on mutually agreed terms.[144] This is important as it allows the indigenous communities to state terms that are beneficial to them.

A third party wishing to access genetic resources must obtain prior informed consent.[145] An agreement for prior informed consent must indicate the following: legal certainty, clarity, and transparency; fair rules on access; the decision-making process; and the establishment of a central authority responsible for overseeing the applications

[137] See the ABS generally.
[138] Article 1 of the ABS.
[139] Article 3 of the Nagoya Protocol.
[140] Article4(1) of the Nagoya Protocol.
[141] See articles 18 and 19 of the IP Protocol.
[142] Article 5 of the Nagoya Protocol.
[143] Article 5(4) of the Nagoya Protocol.
[144] See generally Article 5 of the Nagoya Protocol.
[145] Article 6(1) and (2) of the Nagoya Protocol.

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and exercises thereof.[146] Most importantly, however, it provides that a dispute-resolution mechanism and terms for ABS must be established, including IP.[147]

Article 7 provides that member states are to design measures to ensure that parties accessing genetic resources and associated indigenous knowledge are doing so after a prior informed consent agreement has been entered into.[148] An agreement must indicate that indigenous people have been involved in the negotiation processes, and it was so agreed based on the mutually agreed terms of such a party and the indigenous people/community.[149] Furthermore, a framework on ABS must promote research that fosters sustainable development and the use of resources.[150]

The Nagoya Protocol requires the member states to explore access and benefit-sharing mechanisms globally, where access and use of genetic resources are sought from multiple states or granting FPIC would be impossible.[151] The benefits generated and shared under this theme will be used for conservation and sustainable resource use.[152]

It is also possible that a particular genetic resource associated with indigenous knowledge exists in more than one territory. As a result, to ensure adequate protection, control, and management, the territories in which these resources exist ought to cooperate on development, security, and use.[153] In so doing, the contracting parties should prioritise including indigenous people.[154] The same is the case where indigenous knowledge-based resources are shared by one or more indigenous communities within state parties; there must be cooperation.[155]

Member states are to support the indigenous community in developing community protocols for accessing indigenous knowledge and associated genetic resources equitably in terms of fair and equitable sharing of benefits through contractual

[146] Article 6(3) of the Nagoya Protocol.
[147] Article 6(3)(g) of the Nagoya Protocol.
[148] Article 7 of the Nagoya Protocol.
[149] *Ibid*.
[150] Article 8 of the Nagoya Protocol.
[151] See article 10 of the Nagoya Protocol.
[152] *Ibid*.
[153] Article 11 of the Nagoya Protocol.
[154] Article 11(1) of the Nagoya Protocol.
[155] Article 11(2) of the Nagoya Protocol.

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clauses.[156] Furthermore, parties shall accommodate the customary ways indigenous people have used to exchange genetic resources and the associated indigenous knowledge.[157]

In addition to a focal authority responsible for receiving and registering applications for ABS,[158] an authority must be established to monitor the use of genetic resources and associated indigenous knowledge.[159] Safeguarding indigenous knowledge and the associated resources should also include raising awareness about the resources and the associated indigenous knowledge.[160] Stakeholders responsible for this safeguarding should be capacitated with the necessary resources.[161]

Furthermore, article 25 introduces financial mechanisms for implementing ABS by requiring member states to ensure adequate funds for implementing the ABS policy.[162] This may be done through fundraising, taxes, and institutional subsidies.[163] The Nagoya Protocol provides that each member is responsible for monitoring how the Protocol is implemented, including creating internal procedures separate from dispute-resolution mechanisms.[164]

4.2.5. International Treaty on Plant Genetic Resources for Food and Agriculture[165]

Although this Treaty also focuses on a specific category of indigenous knowledge-related resources, such as genetic/biological resources, its provisions are relevant in developing guidelines/rules that would contribute to implementing the IP Protocol for safeguarding indigenous knowledge in the context of the AfCFTA Agreement. This Treaty was concluded to foster the conservation and promote sustainable use of biological-agricultural resources in line with the CBD.[166]

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[156] Article 12(3) of the Nagoya Protocol.
[157] Article 12(4) of the Nagoya Protocol.
[158] Article 13 of the Nagoya Protocol.
[159] Article 17 of the Nagoya Protocol.
[160] Article 21 of the Nagoya Protocol.
[161] Article 22 of the Nagoya Protocol.
[162] See generally article 25 of the Nagoya Protocol.
[163] *Ibid*.
[164] See articles 29 and 30 of the Nagoya Protocol.
[165] International Treaty on Plant Genetic Resources for Food and Agriculture <CL 121/5 (fao.org)> accessed 23 May 2024.
[166] Article 1 of the International Treaty on Plant Genetic Resources for Food and Agriculture.

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The provision of ABS is of interest in the Treaty. Article 13 provides that benefits from a multilateral agreement shall be fairly and equally shared among the contracting parties.[167] The benefits may accrue from information exchange, commercialisation, access, and technology transfer.[168] Unless a resource is available with no restrictions,[169] whoever uses a genetic resource-based material ought to share the benefits thereof with those holding rights over such a resource.[170]

The exchange of information must be achieved by making the information available for the other party to access. This can be done through catalogues, inventories, databases, characterisation, evaluation, and use of the knowledge.[171] When making this information available, the concerned parties should consider not disclosing confidential information.[172] This provision benefits some indigenous knowledge-related aspects that may be part of the agreement but are private from the public. This would ensure a fair, transparent, and adequate protective system.

To ensure the sustainability of an indigenous knowledge-based economy, the knowledge itself and the associated resources must be sustainable. This would be ensured by incentivising the correct inventors and allowing the public to use indigenous knowledge resources sustainably.[173] Furthermore, to implement the objectives of the Treaty, the contracting parties are to invest in creating a funding system.[174]

The proposed settlement of disputes system is also essential in the case of indigenous knowledge commercialisation and the agreements to it. This system would ensure that when contracting parties cannot reach a consensus, they would approach relevant offices where an impartial individual would adjudicate the matter. This could be an arbitration, as suggested in article 22.[175] In cases where such disputes cannot be

[167] Article 13(1) of the International Treaty on Plant Genetic Resources for Food and Agriculture.
[168] Article 13(2) of the International Treaty on Plant Genetic Resources for Food and Agriculture.
[169] What is normally referred to as “a public domain”
[170] It will either be the indigenous communities, and if not, then the state in which such resource is found. See article 13(2)(d) of the International Treaty on Plant Genetic Resources for Food and Agriculture.
[171] Article 13(2)(a) of the International Treaty on Plant Genetic Resources for Food and Agriculture.
[172] *Ibid*.
[173] Article 13(2)(c) of the International Treaty on Plant Genetic Resources for Food and Agriculture.
[174] See part VI of the International Treaty on Plant Genetic Resources for Food and Agriculture.
[175] Article 22(3)(a) of the International Treaty on Plant Genetic Resources for Food and Agriculture.

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solved through tribunals, the matter should be referred to an International Court of Justice.[176] This provision guides this study in designing a system for settling disputes.

The discussions above clarify what a benefit-sharing system should look like to safeguard indigenous knowledge and adequately distribute the benefits. In addition to the principles laid in the above legal framework, there are other ways in which indigenous knowledge can be safeguarded. The following section explores international and regional instruments and organisational and policy frameworks for protecting indigenous knowledge and related resources.

4.2.6. United Nations Convention for the Protection of Intangible Cultural Heritage[177]

For this analysis, intangible cultural heritage (ICH) is related to indigenous knowledge, which is the cultural knowledge of the indigenous people. Article 2 of the Convention defines ICH as norms and standards, representations, expressions, skills, tangible associated objects, and the people involved in developing all the above components.[178] Therefore, systematically developing ideas to safeguard the ICH also applies to indigenous knowledge. This is evident in article 2, where it is provided that ICH includes, but is not limited to, oral traditions, artistic expressions, practices, rituals, knowledge, information and training about nature, and indigenous craftsmanship.[179]

This Convention provides for the list system, which is concerned with the composition and management of ICH, by imposing mandatory application of its principles on the signatories. It establishes the need to categorise ICH in the representative list, register of good standing, and list of urgent safeguarding of ICH. This discussion considers the relevant parts of the Convention to identify measures that may be helpful when safeguarding indigenous knowledge in the context of the AfCFTA Agreement.

The purpose of this Convention, as listed in article 1, is to safeguard and ensure respect for ICH, raise awareness of ICH, and ensure international cooperation on ICH

[176] Article 22(3)(b) of the International Treaty on Plant Genetic Resources for Food and Agriculture
[177] United Nations Convention for the Protection of the Intangible Cultural Heritage <Text of the Convention for the Safeguarding of the Intangible Cultural Heritage - intangible heritage - Culture Sector - UNESCO> accessed 23 May 2024.
[178] Article 2 of the Convention for the Safeguarding of the Intangible Cultural Heritage.
[179] Article 2(2) of Text of the Convention for the Safeguarding of the Intangible Cultural Heritage.

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issues.[180] Safeguarding indigenous knowledge in the context of the Convention refers to measures that would promote the identification, research, preservation, documentation, protection, and transmission of ICH as a means to promote the viability thereof.[181] Part III of the Convention provides various measures that may also be integrated into the AfCFTA Agreement to safeguard indigenous knowledge to fulfil the above.

Article 11(b) provides that member states to the Convention may ensure that various and specific elements of ICH are identified and defined with the assistance of the local communities, interested NGOs, and other governmental institutions.[182] This affirms the inclusivity system of protection, where the indigenous communities, among other relevant stakeholders, are included in the decision-making process concerning indigenous knowledge.[183] In the identification process, the appropriate authorities are to draw up inventories of all the ICH available in their respective jurisdiction,[184] and these inventories must be examined by another independent department(s).[185]

Furthermore, article 13 provides other protective measures to safeguard ICH: adopting a general policy to promote ICH in society and ensuring that relevant implementation departments integrate such measures in their planning.[186] It would be futile to develop measures to safeguard ICH and, equally, indigenous knowledge if there is no implementation institution. This is why it is provided that an authoritative body must be established to ensure the execution of the measures so developed.[187] Furthermore, fostering studies relevant to ICH's scientific, artistic, and technical aspects would ensure adequate safeguarding of the heritage and, equally, indigenous knowledge.[188] This should be an academic endeavour and an opportunity to educate the indigenous

[180] Article 1 of Text of the Convention for the Safeguarding of the Intangible Cultural Heritage.
[181] Article 2(3) of Text of the Convention for the Safeguarding of the Intangible Cultural Heritage.
[182] Article 11(b) of Text of the Convention for the Safeguarding of the Intangible Cultural Heritage.
[183] See article 15 of Text of the Convention for the Safeguarding of the Intangible Cultural Heritage.
[184] Article 12(1) of Text of the Convention for the Safeguarding of the Intangible Cultural Heritage.
[185] Article 12(2) of Text of the Convention for the Safeguarding of the Intangible Cultural Heritage.
[186] See article 13(a) of Text of the Convention for the Safeguarding of the Intangible Cultural Heritage. For example, in the context of South Africa where there are various department such as depart of arts and culture, environment and forestry, agriculture and health. These departments would have to integrate the protective measures in the annual planning.
[187] See article 13(b) of Text of the Convention for the Safeguarding of the Intangible Cultural Heritage.
[188] Article 13(c) of Text of the Convention for the Safeguarding of the Intangible Cultural Heritage.

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communities and commercial stakeholders engaged in commercialising indigenous knowledge.

As part of the educational awareness of ICH, the publisher of indigenous knowledge and the associated resources must be acquainted with all the information central to the indigenous cultural heritage.[189] Programmes must be designed to educate these people, and capacity-building initiatives must focus on research, management, and transmission of ICH.[190] Commercialising indigenous knowledge requires interaction with such knowledge, and physically in terms of tangible indigenous knowledge. Therefore, reference may be made to the provisions of article 14(b), where it is required that the relevant authorities must inform the public of the threats against their heritage.[191]

The relevant authorities must establish or develop institutions that would train the interested/concerned parties in the management and transmission of ICH by using specific and appropriate forums.[192] In managing access to ICH, it is provided that the cultural and customary practices (of the indigenous people) must be respected.[193] Furthermore, institutions must be established to be responsible for the documentation of the ICH.[194]

In addition to educational initiatives,[195] as part of the international cooperation of states in the safeguarding of ICH, states are to use experts in different fields of ICH;[196] train staff in respective departments/institutions;[197] set the operational standards;[198] create and operate various items of infrastructure needed to realise the objectives of the Convention;[199] educate people on the skills;[200] and offer financial assistance that shall include gratitude and low-interest loans.[201] Part VI establishes the fund for

[189] Article 14(a)I) of Text of the Convention for the Safeguarding of the Intangible Cultural Heritage.
[190] See articles s 14(a)(ii)-(iv) of Text of the Convention for the Safeguarding of the Intangible Cultural Heritage.
[191] Article 14(b) of Text of the Convention for the Safeguarding of the Intangible Cultural Heritage.
[192] Article 13(d)(i) of Text of the Convention for the Safeguarding of the Intangible Cultural Heritage.
[193] Article 13(c)(ii) of Text of the Convention for the Safeguarding of the Intangible Cultural Heritage.
[194] Article 13(c)(iii) of Text of the Convention for the Safeguarding of the Intangible Cultural Heritage.
[195] Article 21(a) of Text of the Convention for the Safeguarding of the Intangible Cultural Heritage.
[196] Article 21(b) of Text of the Convention for the Safeguarding of the Intangible Cultural Heritage.
[197] Article 21(c) of Text of the Convention for the Safeguarding of the Intangible Cultural Heritage.
[198] Article 21(d) of Text of the Convention for the Safeguarding of the Intangible Cultural Heritage.
[199] Article 21(e) of Text of the Convention for the Safeguarding of the Intangible Cultural Heritage.
[200] Article 21(f) of Text of the Convention for the Safeguarding of the Intangible Cultural Heritage.
[201] Article 21(g) of Text of the Convention for the Safeguarding of the Intangible Cultural Heritage.

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safeguarding ICH, where various stakeholders would contribute to the fund.[202] To ensure that indigenous knowledge is safeguarded, the AU may also consider establishing a fund.

4.3. The African regional legal framework

4.3.1. African Model Legislation for the Protection of the Rights of Local Communities, Farmers, and Breeders, and for the Regulation of Access to Biological Resources 2000 (African Model Law)[203]

The development of the African Model Law began in 1997, after concerns were raised about access to biological resources and the development of patents, a *sui generis* framework, or a combination of both for safeguarding biological resources. [204] While that was an objective, the use of the IP regime over biological resources was highly contested, with the issue that recognition of the rights of indigenous people is not in line with the IP regime.[205] The IP regime was seen as an enabler of biopiracy.[206] Adopted in 1998 by the Organisation of African Unity (now AU), the African Model Law was designed to represent the African common position in the WTO framework.[207]

Although a soft law, the African Model Law guides how ABS, prior informed consent, and prior art disclosure principles may be implemented to safeguard indigenous knowledge. The legislation recognises the rights of indigenous people over their indigenous resources.[208] It provides that to protect the cultural heritage of the

[202] Part VI of Text of the Convention for the Safeguarding of the Intangible Cultural Heritage. There may be compulsory contribution and voluntary contribution. The funds will be for all the needs for the safeguard of indigenous knowledge, from administration to security.
[203] African Model Legislation for the Protection of the Rights of Local Communities, Farmers, and Breeders, and for the Regulation of Access to Biological Resources 2000 <African Model Legislation for the Protection of the Rights of Local Communities, Farmers and Breeders, and for the Regulation of Access to Biological Resources, Organization of African Unity (OAU), WIPO Lex> accessed 23 May 2024.
[204] See Peter Munyi et al, 'A Gap Analysis Report on the African Model Law on the Protection of the Rights of Local Communities, Farmers and Breeders, and for the Regulation of Access to Biological Resources' (2012) Department of Human Resources, Science and Technology of the African Union Commission <GAP_Analysis_and_Revison_African_Model_Law_FINAL_2902_01.pdf (abs-biotrade.info)> accessed 23 May 2024. See also Johnson Ekpere, 'The Protection of the Rights of Local Communities, Farmers and Breeders, and for the Regulation of Access to Biological Resources: An Explanatory Booklet' <t_oau_model_law.pdf (blauen-institut.ch)> accessed 24 May 2024.
[205] Peter Munyi et al, 'A Gap Analysis Report on the African Model Law on the Protection of the Rights of Local Communities, Farmers and Breeders, and for the Regulation of Access to Biological Resources' 9.
[206] *Ibid*.
[207] n 205 above.
[208] Preamble to the African Model Law.

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indigenous people, the underlying knowledge, practice, innovation, and technologies must be considered.[209] It further recognises that protecting indigenous knowledge contributes to sustainable development, a goal the AU sought to achieve through the AfCFTA Agreement.[210]

The main objective of the African Model Law is to ensure the sustainable existence of biological resources and associated knowledge.[211] This will be achieved by safeguarding the rights of indigenous people, providing a systematic approach to equitable ABS of the revenue of indigenous resources, including and promoting the participation of the indigenous communities in decision-making processes and capacity-building, and creating an institutional framework for the enforcement of indigenous people's rights.[212]

The Model Law defines community rights as the rights held by indigenous people over their resources, practices, knowledge, creations, and technologies.[213] Furthermore, it defines indigenous knowledge as the knowledge essential for the sustainable use of indigenous biological resources to promote the socio-economic development of indigenous knowledge that indigenous communities have developed through the years.[214]

Part III provides that access to biological resources and associated indigenous knowledge shall be subject to such third parties obtaining consent before access.[215] An essential aspect of this provision is that the consent must be reduced to writing.[216] Furthermore, an institution must be established to receive and examine applications for accessing biological resources and the associated indigenous knowledge.[217]

The African Model Law provides that an applicant for an access permit must disclose the following: identity and proof of standing to enter into such a contract; identification of a subject matter sought to be accessed and where physical, the location in which it

[209] *Ibid*.
[210] *Ibid*. See Preamble to, articles 3, 4, and 5 of the AfCFTA Agreement.
[211] Part I of the African Model Law.
[212] *Ibid*.
[213] Part II of the African Model Law.
[214] *Ibid*.
[215] Part III (3)(1) of the African Model Law.
[216] *Ibid*.
[217] Part III (3)(2) of the African Model Law.

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will be collected from; the purpose of accessing and a statement on its sustainable use; and if it is for commercial use, the details thereof; information of any collaborators; indicators to be used for tracking the use thereof; the location where the resource or knowledge is to be used; the benefits expected to be derived from the use of such a resource, which shall accrue to the country and relevant indigenous community providing such resources and any other geographical area where the use thereof occurs if applicable; proof and details on benefit sharing; description of technology, knowledge, and innovation associated with a resource, in the case of a tangible resource; and the impact on future generations.[218]

In Part III (5), access must be had after consulting with the indigenous people, the failure of which will invalidate such access.[219] After applying to access biological resources and the associated indigenous knowledge, technology, and creation/innovation, the responsible authority must publish such an application in the national registry.[220] This will enable all the interested parties, including the indigenous people interested in the subject matter, to comment or object.[221] It vests the powers to grant access to biological resources and the associated indigenous knowledge to such competent authority, where the relevant authority and an indigenous community, together with the applicant, will sign the agreement.[222]

The access and benefit-sharing agreement will indicate the extent to which the third party may access indigenous knowledge and the associated resources, keep records of such access, confining the subject within the scope of the agreement, including not transferring to any other party not party to the agreement; and include a clause against registering any IPR over the subject matter without obtaining consent from the holders of rights over such a subject.[223] The agreement must also indicate that access is subject to an applicant socio-economically contributing to the development of the holders of the rights over a resource.[224] The efforts to achieve these objectives must be ensured before entering this agreement.[225]

[218] Part III (4) of the African Model Law.
[219] Part III (5) of the African Model Law.
[220] Part III (6)(1) of the African Model Law.
[221] Part III (6)(3) of the African Model Law.
[222] Part III (7) of the African Model Law.
[223] Part III (8)(1) of the African Model Law.
[224] *Ibid*.
[225] n 223 above.

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A person may have up to one permit to access a similar resource. This helps avoid monopoly over specific resources, promoting the resources' sustainable existence.[226] Furthermore, this legislation protects the interests of the indigenous communities by providing for the revocation of a permit where it is proven that provisions of the bill have not been met, no longer serve the public interest, and to ensure sustainability.[227]

It is also essential to recognise the indigenous communities' rights, including the right to use and benefit from their biological resources.[228] In this case, the benefits indigenous communities are entitled to will be at least 50 per cent of the total revenue.[229] Allowing the indigenous communities to refuse access to their resources,[230] indigenous knowledge, technologies, creations, and innovation are beneficial clauses in the access and benefit-sharing framework. The indigenous communities must assess whether the access will benefit them.

If accessing and using indigenous knowledge is detrimental to their cultural heritage, indigenous people can refuse. The implication is that no force is applied to use indigenous knowledge and the associated resources in the quest for commercialisation, as in the context of the AfCFTA Agreement. The right is extended to withdrawal where consent has already been given,[231] they are so giving the indigenous communities a chance to rethink their decision. Of essential impact is the fact that indigenous communities are to grant, refuse, and withdraw consent according to their customs and customary laws.[232]

Under Part IV (23), the African Model Law protects IPR in indigenous knowledge and the associated biological resources.[233] It provides an essential aspect of a *sui generis* IP protection, that information need not be written/registered to be recognised as an IPR,[234] and neither publication nor oral presentation of such resources and the

[226] Part III (13) of the African Model Law.
[227] Part III (14) of the African Model Law.
[228] Part IV (16) of the African Model Law.
[229] Part IV (22) of the African Model Law.
[230] See Part IV (19) of the African Model Law.
[231] Part IV (20) of the African Model Law.
[232] Part IV (21) of the African Model Law.
[233] See Part IV (23) of the African Model Law.
[234] Part IV (23)(3) of the African Model Law.

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associated indigenous knowledge will result in such forming part of the public domain.[235]

The above discussion elucidates the vital role of the African Model Law's provisions in developing rules for implementing the IP Protocol in safeguarding indigenous knowledge in the context of the AfCFTA Agreement. This ranges from defining indigenous communities' rights over their biological resources, associated indigenous knowledge, technologies, innovations and creations to governing how ABS should be ensured.

4.3.2. African Union Practical Guidelines for the Coordinated Implementation of the Nagoya Protocol in Africa 2015[236]

After the Nagoya Protocol was adopted in Nagoya, Japan, in 2010, a resolution was made after accessing the African Model Law on achieving the objectives of the Nagoya Protocol. The 6th Pan-African ABS workshop in 2012 at Limbe, Cameroon, led to a decision to develop guidelines for the Nagoya Protocol. Negotiations continued throughout 2013 and 2014 until the African Union Practical Guidelines for the Implementation of the Nagoya Protocol were adopted by the African Union Assembly during its 25th Ordinary Session held in South Africa in 2015.[237] These guidelines are inexhaustive,[238] they are allowing the state parties to the AfCFTA Agreement to consider other measures to implement access and sharing of benefits accrued from the access and use of indigenous knowledge and associated resources.

These guidelines aim to guide AU member states in developing rules on an access and benefit sharing (ABS) system, preventing misuse of indigenous knowledge and associated genetic resources, providing punitive measures for violating these rules, and promoting access and use of indigenous knowledge and related resources in a

[235] Part IV (23)(4) of the African Model Law.
[236] African Union Practical Guidelines for the Coordinated Implementation of the Nagoya Protocol in Africa <Microsoft Word - AUPracticalGuidelinesOnABS_20150215_print mit SZ.docx (cbd.int)> accessed 24 May 2024.
[237] African Union Practical Guidelines for the Coordinated Implementation of the Nagoya Protocol in Africa 1-2.
[238] African Union Practical Guidelines for the Coordinated Implementation of the Nagoya Protocol in Africa 4.

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manner that supports socio-economic and cultural development of the African indigenous people/communities.[239] The guidelines do so in the following manner:

The holders of rights over indigenous knowledge and the associated resources have the right to decide who can access these and related resources. Given the past injustices that the indigenous people have been subjected to regarding indigenous knowledge and the associated resources, the guidelines provide that the negotiation and entering into ABS agreements should be done expeditiously. Most importantly, however, the ABS agreement should be preceded by an agreement indicating informed consent.[240]

The ABS contract may include terms the indigenous people collectively deem fit, including but not limited to parties to the agreement, legal and financial ability to fulfil the contract, and declaration of powers to enter into the contract.[241] The agreement must indicate what the contracting parties will benefit from following such a contract. An essential aspect of the guidelines is their pronunciation of the indigenous communities as the relevant stakeholders for negotiating indigenous knowledge and related resources matters.[242] This answers the concern over the representation part for indigenous knowledge to be considered under the IP system, particularly patents. Recognising indigenous communities means that their community protocols, customary rules, and practices will be applicable when determining rules for implementing ABS.

The Guidelines commend the transparency and reliability of community protocols in achieving the needs of indigenous communities, as they represent the direct wishes of the indigenous people.[243] They further state that customary protocols provide customary law certainty, making it easy to link the indigenous people, the law, and the external stakeholders.[244] As a result, their nature is an opportunity to develop a system

[239] See objectives to the Guidelines in page 5.
[240] See generally, the African Union Practical Guidelines for the Coordinated Implementation of the Nagoya Protocol in Africa.
[241] African Union Practical Guidelines for the Coordinated Implementation of the Nagoya Protocol in Africa 66.
[242] African Union Practical Guidelines for the Coordinated Implementation of the Nagoya Protocol in Africa 73.
[243] African Union Practical Guidelines for the Coordinated Implementation of the Nagoya Protocol in Africa 74.
[244] African Union Practical Guidelines for the Coordinated Implementation of the Nagoya Protocol in Africa 75.

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that recognises indigenous people's rights over their resources and the associated knowledge. Therefore, prior informed consent must be obtained.

The negotiation aspect of community protocols allows indigenous people to develop procedural and substantive rules that benefit them.[245] They also guide how indigenous people can engage with external stakeholders.[246] Regarding the misuse of indigenous knowledge and associated resources, the Guidelines state that relevant stakeholders and authorities may impose penal and civil sanctions such as fines, warnings, cancellation of applications on ABS, revocation of granted ABS agreements, and permanent bans.[247]

Furthermore, regulation rules may provide criminal sanctions to foster compliance with laws.[248] A framework should have rules in which information on ownership of indigenous knowledge and associated resources may be publishable.[249] The reporting requirements are essential to monitor the use of a subject matter and may help safeguard indigenous knowledge and associated resources.[250] Furthermore, an agreement must stipulate access and benefit-sharing terms to ensure certainty.[251] Integrating these clauses and terms into the IP Protocol holds promise for adequately safeguarding indigenous knowledge and associated resources, thus achieving the socio-economic development goal of the AfCFTA Agreement.

4.3.3. The Swakopmund Protocol on the Protection of Traditional Knowledge and Expressions of Folklore, 2010[252]

The Swakopmund Protocol on the Protection of Traditional Knowledge and Expressions of Folklore (Swakopmund Protocol) was adopted by the Diplomatic

[245] African Union Practical Guidelines for the Coordinated Implementation of the Nagoya Protocol in Africa 77.
[246] *Ibid*.
[247] African Union Practical Guidelines for the Coordinated Implementation of the Nagoya Protocol in Africa 34.
[248] African Union Practical Guidelines for the Coordinated Implementation of the Nagoya Protocol in Africa 36.
[249] African Union Practical Guidelines for the Coordinated Implementation of the Nagoya Protocol in Africa 71.
[250] *Ibid*.
[251] African Union Practical Guidelines for the Coordinated Implementation of the Nagoya Protocol in Africa 71-72.
[252] The Swakopmund Protocol on the Protection of Traditional Knowledge and Expressions of Folklore <Swakopmund Protocol on the Protection of Traditional Knowledge and Expressions of Folklore (ARIPO) (wipo.int)> accessed 24 May 2024.

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Conference Swakopmund, Namibia, on 9 August 2010 to provide for the protection of indigenous knowledge, expressions of folklore, and genetic resources. It sought to align this protection with the developments in the WIPO.[253] The Swakopmund Protocol provides a basis for African states wishing to enact laws safeguarding indigenous knowledge and expressions of folklore.[254] These states must be member states of the ARIPO, AU or the United Nations Economic Commission for Africa (UNECA) to be eligible for membership.[255]

The statute comes into play to achieve ARIPO's objective of harmonising and developing an IP framework in Africa.[256] The statute acknowledges indigenous knowledge's economic, intellectual, and developmental value.[257] It recognises the perpetual nature of indigenous knowledge. It provides that in safeguarding this knowledge, the concerned stakeholders must be mindful of the rights of the indigenous communities. Protecting this knowledge shall include rewarding indigenous communities for invention, authorship, management, development, and preservation of the knowledge.[258]

The statute addresses the misuse and misappropriation of indigenous knowledge,[259] as required by the IP Protocol.[260] It seeks to ensure that access to indigenous knowledge includes sharing benefits between the providers and users. By granting incentives to the providers, the Protocol promotes creativity and innovation in the indigenous communities, therefore contributing to the sustainable development goal of the AU.[261] Lastly, it recognises that the legal framework must be tailored to meet the needs of the indigenous people, thus resembling the *sui generis* protection of indigenous knowledge.[262]

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[253] ARIPO Secretariat, 'Explanatory guide to the Swakopmund Protocol on the Protection of Traditional Knowledge and Expressions of Folklore' (2012) <https://www.newaripo.online/storage/resources-protocols/1674640204_php3Quduj.pdf> accessed 24 May 2024.
[254] ARIPO Secretariat, 'Explanatory guide to the Swakopmund Protocol on the Protection of Traditional Knowledge and Expressions of Folklore' 10.
[255] ARIPO Secretariat, 'Explanatory guide to the Swakopmund Protocol on the Protection of Traditional Knowledge and Expressions of Folklore' 15-16.
[256] Article III (c) of the ARIPO.
[257] Preamble to the Swakopmund Protocol.
[258] *Ibid*.
[259] n 257 above.
[260] See article 18(1) and (3) of the IP Protocol. See also article 19(1), (3); and 20(1), and (3) of the IP Protocol.
[261] *Ibid*.
[262] n 260 above.

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As already indicated, the Protocol seeks to safeguard indigenous knowledge and combat any infringement of rights afforded to the holders of this knowledge.[263] The Protocol defines what indigenous knowledge means.[264] It provides that indigenous knowledge refers to knowledge emanating from a local or indigenous community. It was intellectually developed in the indigenous context and includes skills to do certain things, innovate, and practise them.[265] It is knowledge passed from one generation to another and is not limited to a specific form. Therefore, it may include but is not limited to medicine, agriculture, environmental management, and genetics.[266]

The knowledge must have been developed, conserved, and passed within a traditional setting and associated with a specific indigenous community.[267] The Protocol further states that this protection shall not be subject to formal requirements.[268] In other words, the protection must adopt flexibilities, allowing the distinct indigenous community to determine the rules and procedures applicable to their indigenous knowledge. The authorities may use registers to record the knowledge disclosed, and the laws applicable to such knowledge must not affect the sacred or secret knowledge.[269]

The Protocol further provides that the holders of rights over indigenous knowledge are the indigenous communities and individuals who have developed, preserved, and passed the knowledge on to others.[270] This provision is essential in safeguarding indigenous knowledge because it answers who owns indigenous knowledge. Criticisms of using IP to protect indigenous knowledge also focused on the ownership requirement, in that no indigenous knowledge owner renders the IP framework ineffective for the knowledge.[271] Therefore, this provision further invalidates such criticism/claim.

[263] Section 1(1)(a) of the Swakopmund Protocol.
[264] See section 2 of the Swakopmund Protocol.
[265] *Ibid*.
[266] n 264 above.
[267] Section 4 of the Swakopmund Protocol.
[268] Section 5(1) of the Swakopmund Protocol.
[269] Section 5(2) of the Swakopmund Protocol.
[270] Section 6 of the Swakopmund Protocol.
[271] See generally, Lakshmanan Pushpa Kumar, and Lakshmanan S, Protecting Traditional Knowledge: Can Intellectual Property Rights help? 30.

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Indigenous people should be able to prevent any other person from accessing their knowledge unless an FPIC agreement has been entered into.[272] In cases where an owner refuses a licence, and the higher authorities believe that the permit would achieve the public's interest, they may implement a compulsory licence on the resource.[273] This would be beneficial in areas like medicine, where the public would benefit from developing a particular medicine.[274] Furthermore, indigenous people can assign their rights to others through licensing agreements unless the owner is an indigenous community.[275] Should such agreements be entered into, they must be in writing and approved by an authorised Minister.[276]

The Protocol provides that all the benefits generated from an indigenous resource/knowledge-based resource must be shared according to access and equitable benefit-sharing agreement that must be entered into before exploring any indigenous resource.[277] The benefits must be shared equitably and fairly according to the agreement.[278] In negotiating a benefit-sharing agreement, relevant authorities are to intervene and mediate to ensure that a fair and equitable agreement is concluded.[279] It also provides that the shared benefits may be monetary or non-monetary, depending on the mutual agreement.[280]

Section 10 provides for the prior art disclosure by requiring any person using indigenous knowledge to acknowledge the source and origin of such knowledge/resource.[281] This serves to promote the viability of indigenous knowledge in various fields, depending on where the third party would be using that knowledge. In this context, protecting indigenous knowledge shall not prevent indigenous people from sharing or using the knowledge for their daily purposes. This aligns with the principle of the IP Protocol, which provides that protecting IPR should not hinder trade, among other things.[282]

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[272] Section 7(1) and (2) of the Swakopmund Protocol.
[273] See Section 12 of the Swakopmund Protocol.
[274] For example, ensuring access to Covid-19 vaccines to everyone.
[275] Section 8(1) of the Swakopmund Protocol.
[276] Section 8(2) of the Swakopmund Protocol.
[277] Section 9(1) of the Swakopmund Protocol.
[278] *Ibid*.
[279] Section 9(2) of the Swakopmund Protocol.
[280] Section 9(3) of the Swakopmund Protocol.
[281] Section 11 of the Swakopmund Protocol.
[282] See Preamble to, and article 4 of the IP Protocol.

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For indigenous knowledge belonging to a community, protection shall exist for as long as needed, which is indefinite.[283] For forever evolving knowledge, the protection shall be for as long as an inevitable fact about expertise has not been transformed. However, for indigenous knowledge belonging to only an individual, the security will exist for 25 years after exploration.[284] That is, 25 years after granting access to a third party.[285] Section 14 establishes the institutional framework for the enforcement of the protection of indigenous knowledge. It does this by requiring the established office to promote indigenous knowledge and its protection through education, training, monitoring, registration of rights, dispute-resolution mechanisms, and, most importantly, enforcement,[286] which may involve prosecution and imposing fines against the infringers of IPR in indigenous knowledge.

The Administrative Council of the ARIPO entered into and later amended the Regulations for Implementing the Swakopmund Protocol on Traditional Knowledge and Expressions of Folklore within the Framework of the African Regional Intellectual Property Organization (Swakopmund regulations).[287] These regulations sought to implement the protective measures introduced in the Swakopmund Protocol. This section explores how the ARIPO fosters the implementation of those principles through these regulations.

When registering for indigenous knowledge, the applicant must disclose information on names, nationality, and the purpose of registration.[288] The applicant must disclose any prospective benefit to accrue following such knowledge and, if any, how the benefits will be shared with the rights holders.[289] Upon registration, the applicant will be furnished with the certificate of registration.[290] Information on pending and grant applications must be published for public access to promote transparency.[291] This will ensure that legitimate applications are made and granted, as those with interests could easily object if the applicant did not follow due processes or is defrauding. Where an

[283] Section 13 of the Swakopmund Protocol.
[284] *Ibid*.
[285] n 283 above.
[286] Article 14 of the Swakopmund Protocol.
[287] On the 06th of December 2016. See section 26 of the Swakopmund Protocol
[288] Rule 2(2) of the Swakopmund regulations.
[289] *Ibid*.
[290] Rule 4 of the Swakopmund regulations.
[291] Rule 8 of the Swakopmund regulations.

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application includes confidential information, the competent authority will treat the information confidentially.[292]

4.3.4. Policy Framework on Access and Benefit Sharing Arising from the Use of Genetic Resources in the ARIPO Member States: A Guide for ARIPO Member States[293]

Following the recognition of ABS of genetic resources and associated indigenous knowledge, states have attempted to develop instruments to regulate this access and sharing of benefits. This is evident in establishing the Bonn Guidelines, the Nagoya Protocol, and the African Model Law, as discussed above. Because many African states continued to become members of the CBD and the Nagoya Protocol, the ARIPO decided to develop guidelines on accessing and using indigenous knowledge and associated genetic resources for its member states.[294]

No.1.1 of the ARIPO Policy Guidelines defines associated traditional knowledge as dynamic and living knowledge developed in an indigenous setting, which is preserved and passed on from generation to generation. This knowledge includes, but is not limited to, the skills, practices, innovations, and learning associated with genetic resources.[295] This knowledge is closely used in activities that concern genetic resources.[296] The principles underscoring the Policy are promoting biodiversity, promoting the rights of indigenous communities, and promoting the use of prior informed consent agreements for accessing genetic resources and associated indigenous knowledge.[297]

Furthermore, terms are established regulating the access and use of indigenous knowledge and related genetic resources.[298] The Guidelines suggest establishing a focal office that will deal with the applications for accessing genetic resources and the associated indigenous knowledge and then disseminating information related to these

[292] Rule 20bis of the Swakopmund regulations.
[293] Policy Framework on Access and Benefit Sharing Arising from the Use of Genetic Resources in the ARIPO Member States: A Guide for ARIPO Member States <Guide to Policy Framework on ABS_with Cover_September 2015 (mofcom.gov.cn)> accessed 24 May 2024. (Hereafter, the ARIPO Policy Guidelines).
[294] See foreword of the ARIPO Policy Guidelines.
[295] No. 1.1 of the ARIPO Policy Guidelines.
[296] *Ibid*.
[297] No. 2 of the ARIPO Policy Guidelines.
[298] *Ibid*.

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resources and expertise.[299] Procedural rules for accessing these must be clear and concise.[300]

In the case of genetic resources, the rules on access must promote sustainability for the resources to continue existing for the use of future generations.[301] The Guidelines emphasise that informed consent must be obtained before access to these genetic resources and associated indigenous knowledge.[302] The indigenous communities' cultural practices, rules, and beliefs must be prioritised when negotiating access.[303] Furthermore, an application must disclose the following: interested parties; area of use and period of use; the purpose of access; potential returns; and details of indigenous stakeholders involved and the possible impacts on the environment, including the benefits for the country of origin and the community of origin.[304]

Furthermore, an agreement for accessing genetic resources and associated indigenous knowledge should stipulate the benefits to be shared.[305] These may be monetary or non-monetary. This must be done in a manner that promotes sustainability. This means that access to tangible genetic resources should be regulated to avoid the over-use of resources. Member states are to collaborate on implementing rules on ABS.[306] Furthermore, they may create a fund that will financially cover all the costs associated with administering negotiations and applications for ABS.[307]

An applicant for ABS of genetic resources and associated indigenous knowledge must provide any information regarding the origin of the subject matter, comply with prior informed consent and benefit-sharing requirements, or declare under oath where information relating to the source is unknown.[308] The Guidelines provide for sanctions and remedies in the case of non-compliance with rules on ABS, such as grant

[299] No. 5 of the of the ARIPO Policy Guidelines.
[300] No. 6 of the ARIPO Policy Guidelines.
[301] No. 7 of the ARIPO Policy Guidelines.
[302] See No.8.1 of the ARIPO Policy Guidelines.
[303] No. 8.2 of the ARIPO Policy Guidelines.
[304] No.8.3 of the ARIPO Policy Guidelines.
[305] No.9 of the ARIPO Policy Guidelines.
[306] No. 10 of the ARIPO Policy Guidelines.
[307] See No. 11 of the ARIPO Policy Guidelines.
[308] No. 12 of the ARIPO Policy Guidelines.

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withdrawal, halting processing of an application, public notice of non-compliance, fines, and revocations.[309]

The creation of databases would ensure that the information on applications, registered rights over genetic resources, and associated indigenous knowledge is available to the public.[310] This way would assist in searching and examining existing rights. Meeting all these requirements would be a step towards a successful implementation, but implementing monitoring measures would complete it. Lastly, there should be educational programmes that are designed to teach the public about issues related to the rights of indigenous people in genetic resources and the associated indigenous knowledge, and the various ways they can exercise their rights, including alienating their resources and related knowledge, in a manner that promotes socio-economic and cultural sustainable development.[311]

4.3.5. Highlights from the international and regional instruments

This chapter highlights measures that may be used to implement ABS, promote prior informed consent and prior art disclosure, and prevent the misuse of indigenous knowledge and associated resources in violation of IPR.

Firstly, the World Intellectual Property Organization Treaty on Intellectual Property, Genetic Resources and Associated Traditional Knowledge attempts to prevent the misappropriation of IPR in genetic resources and associated indigenous knowledge by using the patent protection system. Under this provision, all applications for accessing genetic resources and the associated indigenous knowledge should acknowledge the source of the subject matter, which would be a country where a specific indigenous people/community is found. The indigenous community should be included in the decision-making processes. This is the same position that the CBD and the Bonn Guidelines adopt.

Consent must be obtained before entering into an access and benefit-sharing agreement. It is only rational for the indigenous people to be well acquainted with all the relevant information regarding their indigenous knowledge's use, period, benefits,

[309] No. 13 of the ARIPO Policy Guidelines.
[310] No. 14 of the ARIPO Policy Guidelines.
[311] No. 16 of the ARIPO Policy Guidelines.

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implications and associated genetic resources. They can then make informed consent. Again, drawing inferences from the Nagoya Protocol, the central aspect of safeguarding indigenous knowledge within the AfCFTA Agreement should promote participation by the indigenous communities, where these communities determine the rules of procedure on how their knowledge and associated resources are to be attained.

The institutional framework is vital in implementing substantive and procedural access and benefit-sharing rules. This is the position also adopted by the International Treaty on Plant Genetic Resources for Food and Agriculture. This Treaty is relevant as it promotes the sustainable use of available resources, which aligns with the AU motto as depicted in the AfCFTA Agreement: Africa must achieve sustainable development. This is the position reflected the African Model Law. On the other hand, the United Nations Convention for the Protection of the Intangible Cultural Heritage considers safeguarding indigenous knowledge by promoting research on indigenous and identical matters, education, documentation, and disseminating information related to indigenous knowledge and associated resources.

In addition to the African Model Law provisions on the sustainability objectives of the indigenous people, the Swakopmund Protocol emphasises recognising the rights of indigenous people over indigenous knowledge and associated resources as the basis for protecting the same. One would argue that this human rights approach is essential for safeguarding indigenous knowledge in the AfCFTA Agreement's IP Protocol context.

Lastly, what can be drawn from the ARIPO Policy Guidelines is that indigenous knowledge and the associated resources must be given meaning. By establishing a conceptual sense, the AU will be able to achieve the objectives of the IP Protocol. Subsequently, member states of the AfCFTA Agreement are supposed to establish rules that allow the indigenous people/communities to set regulations enabling them to exercise their right to self-determination in the negotiations and the implementation of the AfCFTA Agreement.

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4.4. Conclusion

Article 18 of the IP Protocol provides that implementing measures promoting rules to safeguard indigenous knowledge must be done in consultation with frameworks focused on development.[312] For this reason, this chapter introduces the concept of RTD and situates the exploration of the framework above within the development discourse. Subsequently, the chapter explores the international and regional frameworks on ABS, free and informed consent, and prior art disclosure. The guidelines explored can potentially channel the development of specific measures to implement ABS, prior art disclosures, and FPIC, as well as prevent unauthorised access to IPR in indigenous knowledge.

A conclusion that can be drawn from this chapter's analysis is that a) safeguarding indigenous knowledge requires the inclusion of indigenous people in the decision-making processes; b) indigenous people must be allowed to determine how they should be engaged by external parties who want to access their resources and associated knowledge; c) the relevant stakeholders have to ensure a smooth implementation of the rules developed, in this case, by the AU members of the AfCFTA Agreement. AU members to the AfCFTA Agreement can achieve this by supporting the indigenous people in legal and administrative duties of development, registration, and execution of the IPR in indigenous knowledge; and d) the AU has to deviate from the general IP regime that does not correspond with some features of indigenous knowledge (such as ownership, duration, and subject matter) and protect the IP through a *sui generis* IP regime.

The legal frameworks explored are essential for moving towards comprehensive rules for implementing ABS, prior art disclosure, FPIC, and preventing misappropriation of IPR in indigenous knowledge and the associated resources. The next chapter explores South African legal policy and the institutional frameworks for safeguarding indigenous knowledge. It discusses how South Africa has attempted to implement the AfCFTA Agreement. The chapter examines the South African experiences, guidelines, and principles of trade experts.

[312] See article 18 of the IP Protocol.

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CHAPTER FIVE

UNLOCKING THE POTENTIAL OF NATIONAL FRAMEWORKS FOR PROTECTING INDIGENOUS KNOWLEDGE: INSIGHTS FROM SOUTH AFRICA

Introduction

Articles 18(4), 19(4), and 20(4) of the Protocol (IP Protocol) to the Agreement Establishing the African Continental Free Trade Area (AfCFTA Agreement) on Intellectual Property Rights(IPRs) indicate that when developing rules on disclosures, ABS and informed consent, member states can draw from African and international instruments that prioritise their development-oriented interests. This would enable the states to tailor-make an intellectual property (IP) framework that promotes sustainable development, particularly relevant to the African community. Furthermore, article 23 of the IP Protocol provides that state members must cooperate to enhance the use of indigenous knowledge to "add value to the commercialisation of natural, agricultural, craft, or industrial products, and other traditional cultural expressions".[1] This means that states must cooperate to develop measures that benefit respective indigenous communities. Furthermore, they are to cooperate in the "sharing of information and experiences on national and regional intellectual property policies, laws, and institutions.".[2] Exchange of information would equip these states to effectively address challenges pertaining to the protection and commercialisation of indigenous knowledge.

Informed by this, this chapter draws from the South African legal and policy framework and experiences in safeguarding indigenous knowledge. The use of South Africa as a point of reference results from its vast existing legal framework and practical experience in protecting indigenous knowledge, as outlined in this chapter. Moreover, the South African landscape consists of distinct cultures and practices for preserving indigenous knowledge and its associated resources. The discussion in this chapter offers valuable insights for developing specific guidelines for the implementation of provisions of the IP Protocol, especially as plans are underway for the formulation of

[1] Article 23(6) of the IP Protocol.
[2] Article 23(1) of the IP Protocol; see also generally, article 23 of the IP Protocol; See also articles 19(3), 20(3), and 30(3) of the IP Protocol.

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annexes under the Protocol for protecting indigenous knowledge in the context of the AfCFTA Agreement.

This chapter first explores the South African legal and policy framework for safeguarding indigenous knowledge. Second, it explores and examines the relevant case studies. Third, it highlights South Africa's progress towards implementing the AfCFTA Agreement. Finally, the chapter concludes by hinting at the possible guidelines, which will be comprehensively explored in the subsequent chapter.

5.1. The Indigenous Knowledge System Policy Framework in South Africa

5.1.1. Indigenous Knowledge Systems (IKS) Policy[3]

5.1.1.1. Background

The Department of Science and Innovation (DSI)'s effort to develop a guide for recognising, promoting, and safeguarding indigenous knowledge and associated resources saw the adoption of the IKS Policy in 2004.[4] The policy aimed to create a system that uses the following: advisory services, development programmes, legal and capacity-building, funding, and a record system to safeguard indigenous knowledge.[5] The drivers of this policy would be the recognition of African cultural identity, practical developmental mechanisms, and South Africa's indigenous knowledge in the global economy.[6]

5.1.1.2. Functions of IKS Policy

The functions of the IKS Policy are to ensure transparency in administrating matters associated with the management, reporting, and sustainability of indigenous knowledge. The developmental programmes would foster research related to indigenous knowledge, promote a system of recording indigenous knowledge, and foster teamwork between various stakeholders in the DSI.[7] Legislative reform would

[3] Department of Science and Innovation (Formerly Department of Science and Technology), 'Indigenous Knowledge Systems' (2004) <inside pages (dst.gov.za)> accessed 28 June 2024 (hereafter, the IKS Policy).
[4] See IKS Policy 3.
[5] IKS Policy 11.
[6] *Ibid*.
[7] N 5 above.

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include using an IP regime to safeguard indigenous knowledge. This would help preserve the intellectual craft of indigenous knowledge. As this study has outlined in its various chapters, the conventional IP regime does not accommodate indigenous knowledge. This reform would bring a massive change to the indigenous knowledge sphere.

Establishing a fund would support indigenous communities in the administrative function of safeguarding indigenous knowledge, including research and reporting.[8] Finally, the record system would ensure transparency in managing and safeguarding indigenous knowledge. This would ensure that the interested parties could access existing indigenous knowledge records, ensuring that the existing rights are not violated, and, if violated, the holders would easily prove their cases. The Recordal system would promote the cultural identity associated with indigenous knowledge, practical and developmental measures for safeguarding indigenous knowledge, the role of indigenous knowledge in the economic sphere, and integration of the indigenous knowledge system with other protection systems.[9]

Subsequent sections explore how the objectives of this policy can be achieved through various drivers and legal and institutional frameworks.

5.1.1.3. IKS Policy drivers

The consideration of cultural identity in this policy context occurs as a human rights protection issue, especially considering that indigenous communities have previously been marginalised.[10] To address past injustices, the DSI draws from Section 185 of the Constitution of the Republic of South Africa (the Constitution), which promotes the practice of culture.[11] Sections 30 and 31 of the Constitution affirm the cultural rights afforded to people, including indigenous communities. Therefore, affirming cultural identity is executing constitutional rights afforded to cultural and indigenous communities.

[8] *Ibid*.
[9] n 5 above.
[10] See 1.1. of the IKS Policy.
[11] See section 185 of the Constitution.

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Furthermore, safeguarding indigenous knowledge is a means to respond to global trends, where community practices are aligned with what is happening globally.[12] Therefore, protecting indigenous knowledge in this context aligns with the growing interest in commercialising indigenous knowledge.[13] This would, in turn, foster economic development, as many people would be involved in the commercialisation process.[14] The ever-increasing interest in indigenous medicines indicated that indigenous knowledge must be integrated with other fields, such as the IP regime.[15] This would require the use of TRIPS[16] flexibility.[17] Consequently, the DSI suggested the following: ABS sharing framework, record system, legislative framework, and reformation of the current IP framework.[18] Traditional leaders should also participate in educational programmes in their communities.[19]

The DSI provides further evidence that safeguarding indigenous knowledge would be achieved through the following key terms: ABS framework, records system, legal reform to provide for material transfer agreements, prior art disclosures, and funding.[20] For example, a patent can be registered only if the applicant has disclosed, where applicable, the use of indigenous knowledge and associated resources and has obtained prior consent from the holders of a right over such resources.[21]

The IKS Policy also suggests integrating indigenous knowledge systems with educational and innovation systems, governance and administration, capacity-building, and information systems. The discussion below outlines how these measures would safeguard indigenous knowledge.

5.1.1.4. Indigenous knowledge systems, education and innovation

[12] 1.2. of the IKS Policy.
[13] See 1.3 of the IKS Policy.
[14] *Ibid*.
[15] See 1.4 of the IKS Policy.
[16] Agreement on Trade-Related Aspects of Intellectual Property (TRIPS) <WTO | intellectual property (TRIPS) - agreement text - contents> accessed 29 July 2024.
[17] *Ibid*.
[18] n 16 above.
[19] See 2.4 of the IKS Policy.
[20] IKS Policy 16.
[21] *Ibid*.

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The DSI suggests using education to promote the safeguarding of indigenous knowledge.[22] There is a close link between education's constitutional values and indigenous knowledge's protection.[23] This is because the constitutional principles of social justice, democracy, equity, non-racialism, non-sexism, and human dignity[24] inform the educational situation in South Africa and relate to those of indigenous knowledge protection.[25]

To lay the foundation for safeguarding indigenous knowledge, indigenous knowledge systems must be included in the educational curriculum. This education system must focus on preserving this knowledge by teaching learners/students daily measures to implement to sustain indigenous knowledge.[26] A study by Nnadozie showed that integrating indigenous knowledge in teaching and learning is an essential aspect that requires the extensive training of educators.[27] Given the historical injustices that indigenous communities have suffered, Mvenene argues that indigenous knowledge can be used to cure the historical gaps in our communities, and the first step is to integrate it into educational systems.[28]

Furthermore, public and private institutions would cooperate to engage in research on indigenous knowledge.[29] Engaging in research focused on managing indigenous knowledge will foster the development of ideas relevant to safeguarding indigenous knowledge. Indigenous knowledge as a living resource must be constantly studied to

[22] See chapter 2 of the IKS Policy.
[23] See 2.2. of the IKS Policy.
[24] See section 1 of the Constitution.
[25] People, domains of knowledge and the science and innovation behind every aspect of knowledge. See 2.2. of the IKS Policy.
[26] *Ibid*.
[27] Ijeoma Jacinta Nnadozie, 'The Integration of Indigenous Knowledge Systems (IKS) in the Teaching of Conservation of Biodiversity & Natural Resources: A Critical Case Study of Grade 10 Life Sciences Educators in the Pinetown District' (MSc Education thesis, University of Kwazulu-Natal 2009) <Microsoft Word - Ijeoma_2010_submission_final_draft_Chapter_1-6_and_some_appendices 28 March 2010.doc (ukzn.ac.za)> accessed 29 June 2024.
[28] Jongikhaya Mvenene, 'The Infusion of Indigenous Knowledge Systems in the Teaching and Learning of South African History in the Further Education and Training Phase' (2017) 16(1) Indilinga – African Journal of Indigenous Knowledge Systems 100 <The infusion of indigenous knowledge systems in the teaching and learning of South African history in the further education and training phase (journals.co.za)> accessed 29 June 2024; See also Keikantsemang Ziphora Moichela, 'Integration of Indigenous Knowledge Systems in the Curriculum for Basic Education: Possible Experiences of Canada' (PhD Education thesis, University of South Africa 2017) <Microsoft Word - INTEGRATION OF IKS (EXAMINERS CORRECTIONS DONE) Library Repository (unisa.ac.za)> accessed 29 June 2024; See also Lungile Cindi, 'Incorporating African Indigenous Knowledge Systems into the Basic Education curriculum: Experiences from two schools in the Gauteng and KwaZulu-Natal Provinces, South Africa' (MPhil dissertation, University of Free State 2021) <content (ufs.ac.za)> accessed 29 June 2024.
[29] *Ibid*.

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keep up with current trends. Owusu-Ansah and Mji argue that the Afrocentric approach should be used when conducting research.[30] This means indigenous research designs and methods should be used when conducting the research. This could include including indigenous communities and their techniques when researching issues affecting them.

As customs custodians, traditional leaders are responsible for safeguarding indigenous knowledge.[31] Including traditional leaders in indigenous knowledge would ensure that this knowledge is accessed relatively, equitably, and sustainably.[32] For example, traditional leaders are mandated to advise government officials on issues regarding customary law, customs, and indigenous communities, as the development of policy and legal frameworks affects indigenous communities.[33]

Traditional leaders are responsible for matters concerning the following: arts, culture, land and environmental management and conservation, health and justice, safety and security, tourism, natural resources, and the sharing of knowledge,[34] which indirectly implicates indigenous knowledge. Therefore, traditional leaders play an essential role in safeguarding indigenous knowledge. Furthermore, Women are believed to be integral stakeholders in preserving indigenous knowledge.[35] This is probably because they do much more indigenous knowledge-related work than men.[36] Being actively

[30] Frances Owusu-Ansah and Gubela Mji, 'African indigenous knowledge and research' (2013) 2(1) African Journal of Disability 1 <African indigenous knowledge and research | Owusu-Ansah | African Journal of Disability (ajod.org)> accessed 29 June 2024.
[31] See 2.6 of the IKS Policy.
[32] *Ibid*. See also Olawale Olaopa and Saheed Ogundare, 'Traditional Leadership, Indigenous Knowledge, and Local Governance: Implications for Good Governance and Sustainable Development Agenda' in Sanjeet Kumar and Manjula Bangalore Lakshminarayana (Eds), *Indigenous People - Traditional Practices and Modern Development* (IntechOpen 2023) 65 <http://dx.doi.org/10.5772/intechopen.111291)> accessed 29 June 2024; see also Silindiwe Zvingowanisei et al, 'Karanga Women and Indigenous Knowledge Systems (IKS): Towards enhancing Agricultural Production and Food Security in Zimbabwe' (2022) 2(1) African Thought: A Journal of Afro-centric Knowledge 202 <Karanga Women and Indigenous Knowledge Systems (IKS): Towards enhancing Agricultural Production and Food Security in Zimbabwe (journals.co.za)> accessed 29 June 2024.
[33] See section 17(3) of the Traditional Leadership and Governance Framework Act 41 of 2003.
[34] section 20(1) of the Traditional Leadership and Governance Framework Act 41 of 2003.
[35] 2.5 of the IKS Policy.
[36] See generally, Chika Ezeanya Esioubu, 'Women and indigenous knowledge in Africa' in Olajumoke Yacob-Haliso and Toyin Fatola, The Palgrave handbook of African women's studies (Palgrave Macmillan 2021) 105 <Women and Indigenous Knowledge in Africa | SpringerLink> accessed 29 June 2024.

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involved in indigenous practices, women are a perfect source of specific measures to safeguard indigenous knowledge.

This subsection demonstrates how the educational system can be integrated with the indigenous knowledge system to teach, raise awareness, and promote research. In doing so, traditional leaders and women are considered integral stakeholders in safeguarding indigenous knowledge.

5.1.1.5. Governance and administration

Governance and administration aspects involve the establishment of certain offices and legislative measures.[37] It has been suggested that institutional and legislative measures must be created to safeguard indigenous knowledge.[38] A national office for indigenous knowledge issues was created as part of the institutional framework. This office offers secretarial and advisory work for the management of indigenous knowledge.[39] The national office would be responsible for the following: providing resources as and when required; developing implementation plans; facilitating cooperation between indigenous knowledge holders and third parties; assessing access and benefit-sharing agreements, agents acting as a liaisons between the government and indigenous communities, and generating funds and facilitating dispute-resolution mechanisms.[40]

Furthermore, the national office would facilitate the process of identifying legitimate indigenous knowledge rights holders, establish a national register for indigenous knowledge registration, establish the extent to which customary norms could play a role in safeguarding indigenous knowledge in line with the Constitution, promote fair and equitable access to the available information, promote the consultation of indigenous people in matters concerning them and their knowledge, and consider their best practices on how they can be approached for access and benefit sharing (ABS) agreement.[41]

[37] See 3.2 of the IKS Policy.
[38] *Ibid*.
[39] 4.1 of the IKS Policy.
[40] 4.2 of the IKS Policy.
[41] *Ibid*.

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The advisory committee is responsible for the following: inquiring, studying, and consulting with relevant stakeholders; publicising relevant information; and providing policy recommendations to the appropriate office to safeguard indigenous knowledge.[42] The DSI recognised the establishment of trust, representing the interests of various stakeholders,[43] including indigenous communities. Similarly, the advisory committee should ensure they research specific aspects of indigenous knowledge, establishing best practices relevant to safeguarding indigenous knowledge.

This subsection demonstrates the importance of a governmental, administrative, and institutional framework for safeguarding indigenous knowledge. An office dedicated to indigenous knowledge-related matters should ensure smooth management and governance. Examples include applications for registering indigenous knowledge, preservation, and the sustainable use of indigenous knowledge.

5.1.1.6. Capacity-building

Recognising indigenous knowledge as a national asset requires the establishment of capacity-building measures. The DSI suggests that this would include establishing a people-driven protection system.[44] Through this initiative, indigenous knowledge holders must be empowered through their inclusion in decision-making processes, such as educational and skills development. This would help them understand the technicalities of safeguarding indigenous knowledge, including substantive knowledge, decision-making, and implementation.[45]

Furthermore, capacity-building would include supporting small enterprises in their indigenous communities. This would consist of providing financial and marketing assistance to the indigenous people.[46] An adequate financial and market position would help indigenous people compete in the markets, generating an economy for their communities.

5.1.1.7. Information systems

[42] 4.3 of the IKS Policy.
[43] See 4.6 of the IKS Policy.
[44] see 7.1 of the IKS Policy.
[45] *Ibid*.
[46] See IKS Policy 30-31.

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DSI suggests the use of information systems.[47] This would include databases, libraries, museums, oral forms, laboratories, and indigenous knowledge systems centres.[48] Databases are used as a gap between certain aspects of indigenous knowledge and others, creating coherence in the existing records of indigenous knowledge.[49] Acting as research resources, libraries would support indigenous communities by enabling them to store and share their cultural heritage.[50] Museums can also store tangible and intangible indigenous knowledge.[51] Oral preservation involves passing information from one generation to another.[52]

Furthermore, laboratories for indigenous knowledge systems can use evolving technological techniques to establish facts about certain aspects of knowledge.[53] As research hubs, laboratories could foster the discovery of new aspects of indigenous knowledge.[54] Indigenous knowledge systems centres could be responsible for educating the public about indigenous knowledge and holding seminars and awareness programs.[55]

5.1.2. Policy findings and recommendations: The Department of Trade and Industry[56]

Following the adoption of the IKS Policy discussed above, the Department of Trade and Industry (DTI) conducted a study and recommended using the IP regime to safeguard indigenous knowledge.[57] This considered, this section explores this framework and describes how various IPR in South Africa can be used to safeguard indigenous knowledge.[58] These IPR are patents, trademarks, designs, geographical indications, and copyrights.

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[47] See chapter 8 of the IKS Policy.
[48] *Ibid*.
[49] 8.1 of the IKS Policy.
[50] 8.3 of the IKS Policy.
[51] 8.3 of the IKS Policy.
[52] 8.4 of the IKS Policy.
[53] 8.5 of the IKS Policy.
[54] *Ibid*.
[55] n 53 above.
[56] Department of Trade Industry, 'Policy Framework for the Protection of Indigenous Traditional Knowledge through the Intellectual Property System and the Intellectual Property Laws Amendment Bill, 2008' (2008) <Policy framework for the protection of indigenous knowledge through the intellectual property system: Draft (www.gov.za)> accessed 28 June 2024.
[57] *Ibid* (hereafter "Policy Framework for the Protection of Indigenous Traditional Knowledge".
[58] Policy Framework for the Protection of Indigenous Traditional Knowledge 9-19.

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This framework provides that in cases where an invention was developed with the use of indigenous knowledge, there must be a disclosure of the indigenous knowledge-related resources, disclosure of the indigenous knowledge itself, a FPIC agreement entered into a benefit-sharing agreement and, where applicable, joint ownership of a patent.[59] The Policy Framework for the Protection of Indigenous Traditional Knowledge recognises the broad scope of patents as an appropriate IP regime to safeguard indigenous knowledge, save for its time-frame limit, which does not accommodate the perpetual incentives of indigenous people.[60] By the time the policy was drafted, the government had passed the Patents Amendment Act;[61] therefore, no further repeal/amendment was proposed.

DTI has acknowledged that trademarks can be used for cultural names and symbols since they have a perpetual application, so favouring indigenous knowledge.[62] It was outlined that a certification mark may endorse the process used to develop a particular product. On the other hand, collective indigenous institutions could use collective marks to mark their indigenous knowledge-based property.[63] This is more applicable because indigenous knowledge is a collective property.[64]

For those indigenous resources found only in Africa or closely related to the norms and standards of Africans in Africa, geographical indications (GI) may be an appropriate regime to safeguard indigenous knowledge. This is because GI are used to describe goods with a specific geographical origin and are closely described according to the norms and standards of those in that area.[65]

In developing a framework for GI, the Policy Framework for the Protection of Indigenous Traditional Knowledge has suggested reference to the following international legislation: the Madrid Agreement for the Repression of False and Deceptive Indications of Source on Goods, 1891; The Paris Convention for the

[59] See 4.1 Policy Framework for the Protection of Indigenous Traditional KnowledgePolicy Framework for the Protection of Indigenous Traditional Knowledge Policy Framework for the Protection of Indigenous Traditional Knowledge
[60] *Ibid*.
[61] 20 of 2005.
[62] See 4.2 of the Policy Framework for the Protection of Indigenous Traditional Knowledge Policy Framework for the Protection of Indigenous Traditional Knowledge
[63] *Ibid*.
[64] That its ownership is attributed to the whole community as compared to individual ownership.
[65] See 4.3. of the Policy Framework for the Protection of Indigenous Traditional Knowledge Policy Framework for the Protection of Indigenous Traditional Knowledge.

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Protection of Industrial Property, 1979; the TRIPS Agreement; and the Lisbon Agreement for the Protection of Appellations of Origin, 1958.[66] Below are some essential aspects of the above legal instruments that can also influence the AfCFTA Agreement's IP framework on indigenous knowledge.

Article 1 of the Madrid Agreement states that all goods with a deceptive indication shall be seized by a member state with original ownership rights over such described resources, either before or after importation, depending on the laws of the parties involved.[67] The provisions of this instrument depict the possibility of using civil and criminal procedures to hold perpetrators accountable.[68] Through its members, the AU may consider this when designing further rules to safeguard indigenous knowledge in the IP framework.

Article 22 of the TRIPS Agreement provides that no GI should be granted if it appears that there is already another GI registered for a similar subject matter brought before the relevant authority.[69] An application is granted for each GI in cases with a homonymous GI. This is more practical in Africa, where indigenous knowledge is vast similar environments. One member of the AfCFTA Agreement may have a plant originating from that country, while the neighbouring member state may legitimately claim the same. In this case, the system should accommodate two distinct applications. Another means to ensure that legitimate applications are granted is to review the grants periodically, for example, every two years in the context of the TRIPS Agreement.[70]

The Lisbon Agreement was enacted to govern and protect articles of a specific origin.[71] This protection applies to imitating an article even if the original country of origin is indicated or translated. This would apply to those situations where the Westerners and Europeans use the indigenous resource(s) from the Global South, including Africa,

[66] *Ibid*.
[67] See article 1 of the Madrid Agreement for the Repression of False and Deceptive Indications of Source on Goods. The Statute details how the seizure of a resource is to take place. This study shall rely on the provisions thereof, to design/ suggest how an IP regime within the AfCFTA Agreement should be structured. Articles 9, 10(1) and (2) of the Paris Convention for the Protection of Industrial Property, 1979 contains similar provisions.
[68] See also article 4 of the Madrid Agreement for the Repression of False and Deceptive Indications of Source on Goods.
[69] Article 22 of the TRIPS Agreement.
[70] Article 24(2) of the TRIPS Agreement.
[71] See article 1 of the Lisbon Agreement for the Protection of Appellations of Origin, 1958.

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and acknowledge that such resources are from Africa without having obtained FPIC from the indigenous people. This is rational because, otherwise, people would appropriate someone's (indigenous people's) property for appearance without the owner benefiting. From the IP theoretical perspective, the objectives of incentivising inventions would have been defeated.

The Agreement also grants GI to legal entities and the public, among other traditional right holders.[72] This is another justification for why the AU should enforce IPR in favour of indigenous communities (as the public or through an entity with representatives). It also provides an option to institute legal proceedings against any infringers of these rights.[73]

The policy framework for protecting indigenous traditional knowledge also suggests that industrial designs can safeguard indigenous knowledge's aesthetic and functional aspects.[74] It is suggested that for the commercialisation of indigenous knowledge to occur, indigenous literature and artwork must be safeguarded from illegal reproduction, altercation, transfer, and use, which shall ensure non-derogatory use.[75] Other indigenous goods are safeguarded through the GI.[76] Furthermore, an advisory board must be established to administer indigenous symbols and names, preventing illegal/illegitimate registration.[77]

The Policy Framework for the Protection of Indigenous Traditional Knowledge also suggests protecting indigenous communities' expressed ideas through copyright.[78] Since copyrights apply for a limited time and are not well-aligned with indigenous knowledge, as an indigenous community collectively owns them, other forms may still safeguard these ideas, such as through unfair competition, defensive protection, and

[72] See article 5 of the Lisbon Agreement for the Protection of Appellations of Origin, 1958.
[73] See article 8 Lisbon Agreement for the Protection of Appellations of Origin, 1958.
[74] See 4.4. of the Policy Framework for the Protection of Indigenous Traditional Knowledge Policy Framework for the Protection of Indigenous Traditional Knowledge.
[75] *Ibid*.
[76] n 74 above.
[77] *Ibid*.
[78] 4.5. of the Policy Framework for the Protection of Indigenous Traditional Knowledge Policy Framework for the Protection of Indigenous Traditional Knowledge.

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trade secrets.[79] Under this concept, indigenous communities/people must use compulsory licences to allow others to use their indigenous knowledge.[80]

Furthermore, the Policy suggests the creation of societies or trusts that can administer these collective rights and engage in negotiations for their access.[81] As a result of the Department's preference for compulsory licensing over a deed of sale, it was suggested that the Copyright Act be amended.[82]

As part of contractual agreements, the Policy Framework for the Protection of Indigenous Traditional Knowledge recommends its use when concluding ABS agreement.[83] The use of trade secrets has been discouraged because of their proneness to exposure, so secrecy has been eliminated.[84] In using unfair competition principles, the Policy Framework for the Protection of Indigenous Traditional Knowledge refers to article 10 of the Paris Convention, where it is provided that to prevent unfair competition, the following must be prohibited: all confusing acts and unethical acts such as spreading false allegations to gain a monopoly over the trade of a specific article.[85]

Finally, in designing *sui generis* laws for indigenous knowledge, South Africa should address the following main questions: policy objectives for protection, subject matter, subject criteria, beneficiaries, rights created, acquisition of rights, administration and enforcement of rights, and the period of such rights.

The South African Policy Framework for the Protection of Indigenous Traditional Knowledge paved the way for the current legal framework to accommodate the safeguarding of indigenous knowledge in the IP and *sui generis* regime. The above policy framework has made a substantial contribution, which can be relied on as a guide for implementing the IP Protocol concerning safeguarding indigenous knowledge in the AfCFTA Agreement's context. This includes submissions on how

[79] *Ibid*.
[80] n 78 above.
[81] *Ibid*.
[82] 98 of 1978.
[83] 4.6 of the Policy Framework for the Protection of Indigenous Traditional Knowledge Policy Framework for the Protection of Indigenous Traditional Knowledge.
[84] See 4.7 of the Policy Framework for the Protection of Indigenous Traditional Knowledge Policy Framework for the Protection of Indigenous Traditional Knowledge.
[85] *Ibid*. See also article 10(3) of the Paris Convention for the Protection of Industrial Property, 1979.

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patents, GI, copyrights, industrial designs, contracts, *sui generis* regime, and common law principles of unfair competition may be necessary to safeguard this knowledge adequately.

5.2. The intellectual property framework for indigenous knowledge in South Africa

5.2.1. The Intellectual Property Laws Amendment Act[86]

5.2.1.1. Background

The Intellectual Property Laws Amendment Act (IPLAA), which has yet to come into effect on a date fixed by the President,[87] seeks to integrate indigenous knowledge into the IP regime[88] by amending the provisions of the Performer's Protection Act,[89] Copyright Act,[90] Trade Marks Act,[91] and Designs Act.[92] The IPLAA also seeks to introduce provisions for establishing an institutional framework for databases, councils, and trust funds for indigenous knowledge.[93] By doing so, the IPLAA guides the recognition, comprehension, inclusion, and promotion of the wealth vested in indigenous knowledge.[94]

The Preamble to the IPLAA further seeks to establish a legal framework for commercialising indigenous knowledge, where indigenous people will benefit from the benefits accrued from the exploitation and use of this knowledge.[95] It also establishes a collecting society responsible for managing copyright works and negotiating, collecting, and distributing the revenue generated from such works.[96]

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[86] 28 of 2013 (IPLAA).
[87] Section 15 of the IPLAA.
[88] See the title of the IPLAA.
[89] 11 of 1967.
[90] n 82 above.
[91] 194 of 1993.
[92] 195 of 1993.
[93] See Preamble to the IPLAA.
[94] Ushenta Naidoo, 'A Comparative Assessment of South Africa's Proposed Legislation to Protect Traditional Knowledge' (LLM dissertation, University of Pretoria 2019) 6-63 <Microsoft Word - U.Naidoo MastersDissertation A Comparative Assessment of South Africa's Proposed Legislation to Protect Traditional Knowledge (1).docx (up.ac.za)> accessed 14 January 2023.
[95] Preamble to the IPLAA.
[96] Section 1 of the IPLAA.

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Kuti submits that the IPLAA has positively affected the recognition of indigenous knowledge in the IP regime.[97] Notably, he submits that the redefinition of the author in copyright law, including the first author, individual and an indigenous community, is a remarkable recognition of communal rights.[98] Despite its shortcomings, the IPLAA has not created a new protection system. Instead, it extends the scope of the conventional IP regime to include indigenous knowledge.

Kuti further stated that safeguarding indigenous knowledge in the context of the IPLAA means that the protection rules should be confined to the TRIPS and WTO frameworks.[99] This is because recognising indigenous communities in the Act has implications for other indigenous communities not in South Africa but in other African states such as Zimbabwe, which would require sharing benefits within the scope of the TRIPS Agreement and the WTO.[100]

Given its neutral position on indigenous knowledge protection,[101] Kuti concluded that the IPLAA may not be a complete solution to safeguarding indigenous knowledge.[102] However, the continued reformation of terms similar to those of the IPLAA would help develop comprehensive IP rules to safeguard indigenous knowledge in the context of the AfCFTA Agreement. This would be achieved by recognising all forms of indigenous knowledge in the IP regime, compared to the IPLAA's scope, which excludes indigenous medicinal and agricultural knowledge.[103]

McCall evaluated the intersection between the IP regime and indigenous knowledge systems.[104] She argues that the IPLAA does not offer practical solutions to indigenous

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[97] See Temitope Babatunde Kuti, 'Towards Effective Multilateral Protection of Traditional Knowledge Within the Global Intellectual Property Framework' (LLM in International Trade, Business and Investment Law mini-dissertation, University of the Western Cape 2017) <2313-2573-1-RV.pdf (uwc.ac.za)> accessed 29 June 2024.
[98] Temitope Babatunde Kuti, 'Towards Effective Multilateral Protection of Traditional Knowledge Within the Global Intellectual Property Framework' 65-66.
[99] Temitope Babatunde Kuti, 'Towards Effective Multilateral Protection of Traditional Knowledge Within the Global Intellectual Property Framework' 69.
[100] *Ibid*.
[101] Temitope Babatunde Kuti, 'Towards Effective Multilateral Protection of Traditional Knowledge Within the Global Intellectual Property Framework' 65-70.
[102] Temitope Babatunde Kuti, 'Towards Effective Multilateral Protection of Traditional Knowledge Within the Global Intellectual Property Framework' 70.
[103] *Ibid*.
[104] Vianca McCall, 'Tales as Old as Time: An Evaluation of Intellectual Property and The Protection of Traditional Knowledge' (LLM in Information, Communications and Technology Law dissertation, University of the Witwatersrand 2022) <Microsoft Word - Final Research Report 804436 (22.09.23).docx (wits.ac.za)> accessed 29 June 2024.

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communities regarding how indigenous knowledge should be safeguarded.[105] I argue for the inclusion of indigenous knowledge in a reformed IP regime that addresses the challenges faced by indigenous people. For example, I argue for the development of an IP regime that recognises the knowledge itself, and not just the manifestations of the knowledge; lists requirements on how indigenous knowledge should be created to qualify for protection under the IP regime; reconcile the distinct interests of various indigenous communities in the same indigenous resource (in the case of multiple owners), the commercial use of indigenous knowledge, the perpetual existence of indigenous knowledge, and balancing individual and communal interests over indigenous knowledge.

While Tong criticises the possibility of adequately safeguarding indigenous knowledge in the IPLAA context in one paper,[106] no arguments have been raised about the substantive principles of the Act, except the assumptions on the discrepancies that may result because there is also the Protection, Promotion, Development, and Management of Indigenous Knowledge Act (IK Act), which differs slightly from the IPLAA. However, Tong argues elsewhere[107] the IPLAA does not make material changes to patent law but extends to the existing laws concerned with safeguarding indigenous knowledge.[108] She argues that the IPLAA complicates the process of managing and safeguarding indigenous knowledge.[109] This is evident in the different uses and definitions of indigenous/traditional knowledge and indigenous/traditional communities.[110] She argues that the IPLAA introduced new institutional bodies without properly outlining their duties and responsibilities.[111]

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[105] Vianca McCall, 'Tales as Old as Time: An Evaluation of Intellectual Property and The Protection of Traditional Knowledge' 33-34.
[106] Lee-Ann Tong, 'South Africa Adopts a sui generis indigenous knowledge protection legislation' (2019) 14(12) Journal of Intellectual Property Law& Practice 935 <South Africa adopts sui generis indigenous knowledge protection legislation | Journal of Intellectual Property Law & Practice | Oxford Academic (oup.com)> accessed 29 June 2024.
[107] Lee-Ann Tong, 'Aligning the South African intellectual property system with traditional knowledge protection' (2017) 12(3) Journal of Intellectual Property Law & Practice 179 <Aligning the South African intellectual property system with traditional knowledge protection | Journal of Intellectual Property Law & Practice | Oxford Academic (oup.com)< accessed 29 June 2024.
[108] Lee-Ann Tong, 'Aligning the South African intellectual property system with traditional knowledge protection' 182-183.
[109] Lee-Ann Tong, 'Aligning the South African intellectual property system with traditional knowledge protection' 183-184.
[110] Lee-Ann Tong, 'Aligning the South African intellectual property system with traditional knowledge protection' 184.
[111] Lee-Ann Tong, 'Aligning the South African intellectual property system with traditional knowledge protection' 185.

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Concerning dispute-resolution mechanisms, Tong argues that referring complex IP matters to dispute resolution other than courts, where legal representation is not provided, would face transparency challenges.[112] As a result, there is a need to establish courts that deal specifically with IP-indigenous knowledge matters for which legal representation is also provided. Tong claims that the recognition of customary laws needs to be correctly placed, as it is not justified how customary law would fit into the IP regime.[113] I argue that including customary law in the IP system to safeguard indigenous knowledge should align with community protocols, which provide various ways to execute indigenous customs and practices.

Still, Tong contends that the IPLAA needs to correctly address the issue of ownership of indigenous knowledge, given the apparent objections regarding collective ownership compared to the individual ownership principle of the IP regime.[114] The rules developed in this study address the ownership issues. It should be noted that rights over indigenous knowledge can be vested in an individual, if identified, or an indigenous community through a trust, a leader, or an agent.

Furthermore, Oriakhogba submits that the IPLAA is silent on salient issues, such as ABS.[115] I reconcile this by suggesting that the rules for safeguarding indigenous knowledge in the context of the AfCFTA should be comprehensive, therefore providing for all forms of IPR and other *sui generis* protective measures such as the ABS, FPIC, prior art disclosures, customary law, administrative, criminal, and civil laws.

Ncube also addressed the challenges of implementing the IPLAA to safeguard indigenous knowledge.[116] Owing to the incompatibility of the conventional IP regime and indigenous knowledge, as raised throughout this study, Ncube suggests that indigenous knowledge can be adequately safeguarded outside the IP regime through

[112] Lee-Ann Tong, 'Aligning the South African intellectual property system with traditional knowledge protection' 186.
[113] Lee-Ann Tong, 'Aligning the South African intellectual property system with traditional knowledge protection' 185-186.
[114] Lee-Ann Tong, 'Aligning the South African intellectual property system with traditional knowledge protection' 187-188.
[115] Desmond Osaretin Oriakhogba, 'Empowering Rural Women Crafters in Kwazulu-Natal: The Dynamics of Intellectual Property, Traditional Cultural Expressions, Innovation and Social Entrepreneurship' (2020) 137 The South African Law Journal 145 <Empowering rural women crafters in KwaZulu-Natal : the dynamics of intellectual property, traditional cultural expressions, innovation and social entrepreneurship | South African Law Journal (journals.co.za)> accessed 30 June 2024.
[116] Elmien du Plesis and Caroline Ncube (Eds), *Indigenous knowledge& Intellectual Property* (Juta 2016).

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a *sui generis* system.[117] She also suggests a single IP-like piece of legislation aimed at protecting the IP aspects of indigenous knowledge,[118] rather than what the IPLAA does, which is to mix indigenous knowledge with other forms of IPR.

Andanda and Khademi also comment on the IPLAA and its effectiveness in safeguarding indigenous knowledge in the South African context.[119] They raise concerns about the implementation challenges, which would have financial implications for the country.[120] Despite this, they argue that the prior art disclosure requirement presents an opportunity to strengthen the IP regime to accommodate indigenous knowledge.[121] In addition, Du Plessis suggests that a standard system that seeks to benefit all indigenous communities should be used instead.[122] This is what utility theory advocates, as discussed in Chapter Two of this study.

In no particular order, the following section outlines how the IPLAA affects other IPRs and their role in recognising and protecting indigenous knowledge.

5.2.1.2. Performer's Protection Act[123]

Section 2 of the IPLAA inserts sections 8A, 8B, 8C, and 8D into the Performer's Protection Act.[124] Section 8A introduces the application of the Act to indigenous performance.[125] This approach finds support in the World Intellectual Property Organization (WIPO) Performances and Phonograms Treaty (1996)[126] and the Beijing Treaty of Audiovisual Performances (2012).[127] Section 2(a) of the Performance and Phonogram Treaty provides the following:

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[117] See Caroline Ncube, 'Legislation for the protection of traditional knowledge in South Africa' in Elmien du Plesis and Caroline Ncube (Eds), *Indigenous knowledge& Intellectual Property* (Juta 2016) 47.
[118] *Ibid*.
[119] Pamela Andanda and Hojjat Khademi, 'Protecting traditional medical knowledge through the intellectual property regime based on the experiences of Iran and South Africa' in Elmien du Plesis and Caroline Ncube (Eds), *Indigenous knowledge& Intellectual Property* (Juta 2016) 48.
[120] Andanda (2016) 69.
[121] Andanda (2016) 70.
[122] Elmien du Plessis, 'Protection of traditional knowledge in South Africa: The troubled Bill, the inoperative Act, and the commons solution' in Elmien du Plesis and Caroline Ncube (Eds), *Indigenous knowledge& Intellectual Property* (Juta 2016) 74.
[123] 11 of 1967.
[124] Section 2 of the IPLAA.
[125] *Ibid*.
[126] WIPO Performances and Phonograms Treaty, 1996 <WIPO Performances and Phonograms Treaty> accessed 30 June 2024.
[127] Beijing Treaty on Audiovisual Performances (2012 <Beijing Treaty on Audiovisual Performances (wipo.int)> accessed 30 June 2024.

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> "Performers" are actors, singers, musicians, dancers, and others who act, sing, deliver, declaim, play in, interpret, or otherwise perform literary or artistic works or expressions of folklore".[128]

From this provision, recognising folklore and artistic work may be linked to indigenous knowledge. This is because indigenous knowledge also takes the form of creative work and the expression of folklore.[129] Therefore, performers who engage in acting, singing, interpreting, or performing these tasks and expressions are protected under the performance regime.

Section 8B introduces the institutional framework for dispute settlement.[130] It provides that the Companies and Intellectual Property Commission (CIPC) must establish and accredit institutions or bodies that would be responsible for impartially adjudicating disputes concerning the application of the IPLAA and, subsequently, the amended legislation.[131] The institution must be the first approach point before the aggrieved party can use other avenues.[132] Where necessary, an aggrieved party or any other party may be allowed to use a legal representative.[133]

These provisions can be integrated into the AfCFTA framework. The effect of this is that the aggrieved party, the indigenous people, would use such avenues to obtain justice for the illegal appropriation of their indigenous knowledge. As many indigenous people may need to be better acquainted with the legal techniques of accessing these resources, providing legal representation would benefit this vulnerable group.

Furthermore, it is provided that adjudicating these matters should integrate the customary laws/rules of dispute resolution,[134] and a decision made would be

[128] Section 2(a) of WIPO Performances and Phonograms Treaty; see also section 2(a) of the Beijing Treaty on Audiovisual Performances.
[129] See Gerald McMaster, 'Contemporary art practice and indigenous knowledge' (2020) 68(2) Zeitscrift fur Anglistik und Amerika 111 <Contemporary Art Practice and Indigenous Knowledge (degruyter.com)> accessed 2024; see also Pinkie Phaahla, 'Interfacing JK with other know ledges in the knowledge economy: A case of blending modern knowledge and ancestral wisdom in the South African 'knowledge society' (2011) 21(2) Southern African Journal for Folklore Studies 36 <Phaahla_SAFOS_21_2_2011.pdf (unisa.ac.za)> accessed 30 June 2024.
[130] Section 2 of the IPLAA.
[131] *Ibid*.
[132] n 130 above.
[133] *Ibid*.
[134] n 130 above.

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binding.[135] A party unsatisfied with the decision can appeal to a higher-level institution.[136] Sometimes, a decision taken unfairly affects the indigenous group. Under this provision, they have yet another opportunity to deal with the matter by an upper division of the institution created under this section. Furthermore, the cost of instituting these proceedings should be kept as low as possible to allow indigent indigenous people/communities to contest any arbitrary act against their indigenous knowledge.[137]

Beharie and Shabangu submit that the IPLAA in this context only brought about a specific change concerning the recognition and performance of indigenous work.[138] They argue that the IPLAA did not bring much change and did not significantly affect its scope.[139] They argue that the legislature could not appreciate the distinction between the protection of work being performed and the same work protected by other IPRs, such as copyright and design.[140]

5.2.1.3. Copyright Act[141]

Section 3 of the IPLAA also introduced an amendment to the Copyright Act.[142] One of the most critical provisions defines indigenous property/work as an artistic, literary, and musical work originating in an indigenous community.[143] Such work must have been created by someone who has been or is still part of a specific indigenous community, and such creation has become a part of the indigenous community's heritage.[144] In the same provision, indigenous knowledge is defined as tangible or intangible, or a combination of the two, in which the indigenous people have deposited their traditional and cultural practices in them, which practices are passed from

[135] n 130 above.
[136] *Ibid*.
[137] n 130 above.
[138] Tertia Beharie and Tshepo Shabangu, 'Traditional knowledge, traditional cultural expressions and folklore' in Owen Dean and Alison Dyer (Eds), Introduction to intellectual property (Oxford University Press 2014) 332.
[139] Beharie (2014) 354.
[140] Beharie (2014) 354-355.
[141] n 82 above.
[142] See section 3 of the IPLAA.
[143] *Ibid*.
[144] n 142 above.

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generation to generation, and such shall include but not be limited to music and expressions.[145]

Section 4 of the IPLAA inserts Chapter 2A into the Copyright Act, which covers new sections 28A–28M.[146] Section 28B(2), introduced in Section 4 of the IPLAA, provides that copyright law applies to indigenous work/knowledge.[147] For this work/knowledge to be protected under this Act, it must be written down in record and digital form or any form that makes it readable.[148] Furthermore, the work must have been created by indigenous people.[149]

Section 28B(3), introduced in Section 4 of the IPLAA, states that this knowledge must be "derivative indigenous knowledge".[150] Derivative indigenous work relates to the first origin of work, which then acquires its indigenous character through its existence in an indigenous community.[151] Section 3(e) of the IPLAA provides that derivative indigenous work relates to any work applied to any indigenous work and then recognised as indigenous by an indigenous community of origin.[152]

It is further provided that for indigenous knowledge to be registered as a copyright, provided that it meets the requirements above, the applicant must indicate that they entered into a FPIC agreement.[153] Furthermore, they must disclose all the indigenous expressions to the relevant authorities,[154] that an access and benefit-sharing agreement has been entered between such an applicant and the indigenous people/community/or representative thereof,[155] and that all other laws of such a community have been followed.[156]

Section 28C introduces the database provision for protecting copyright and other IPR that the IPLAA seeks to amend.[157] These databases store all information, including

[145] *Ibid*.
[146] Section 4 of the IPLAA.
[147] *Ibid*.
[148] n 146 above.
[149] *Ibid*.
[150] n 146 above.
[151] See section 3 of the IPLAA.
[152] See section 3(e) of the IPLAA.
[153] *Ibid.*
[154] n 152 above.
[155] *Ibid.*
[156] n 152 above.
[157]section 4 of the IPLAA.

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indigenous expressions and other forms of indigenous property.[158] They shall also record aspects of indigenous property ownership and the representations thereof, if any.[159] This benefits indigenous knowledge, as the ownership of indigenous knowledge is often criticised. Therefore, outlining who owns this knowledge in a binding instrument settles the prospects of disputes, so ensuring knowledge security.

An author, representative, or any other person vested with such powers may contribute to managing copyrights.[160] If integrated into the AfCFTA Agreement framework, this provision would assist in cases where the indigenous author cannot represent themselves as the applicant or where such an author has died. Other members of the indigenous community designated by the relevant authorities may play a part in managing such knowledge, promoting its sustainable use and indirectly contributing to the sustainable development goals of the AU.

When an application for copyright over indigenous property is made, the applicant is required to disclose the following information: specification of an indigenous community or its institutional structure;[161] an appointed agent in whose name such copyright must be registered[162] or registration details if such representative is a juristic person;[163] the subject matter being protected;[164] the form of the subject matter, which shall describe whether it is sacred or should be treated confidentially;[165] and an undertaking that the agent/representative undertakes to uphold the copyright, if granted, in favour of the concerned indigenous community/people.[166]

Section 28D provides the copyright owner as an author and an indigenous community is considered a juristic person.[167] Therefore, indigenous knowledge can be acquired by an individual or an indigenous community. If the author cannot be determined, is no longer alive or in existence in the case of an indigenous community, or the subject matter cannot be simultaneously used by more than one author, the rights thereof shall

[158] *Section 4 of the IPLAA.*
[159] *Ibid.*
[160] n 158 above.
[161] *Ibid*.
[162] n 158 above.
[163] *Ibid*.
[164] n 158 above.
[165] *Ibid*.
[166] n 158 above.
[167] *Ibid*.

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vest in the trust, which will be responsible for the communication, management, and transfer of indigenous knowledge in favour of indigenous communities at large.[168]

Anyone who uses copyrighted material before the expiry of such copyright will pay the author his royalties and benefits generated from such use.[169] It should be noted that an agreement between an indigenous author and the third party concerned must precede such use.[170] The provisions of this section imply that when a third party benefits from undue enrichment, the author can claim any revenue generated from such use. Therefore, indigenous communities/people would have the right to sue if their property has been used without their consent and no royalties and benefits have been paid to them.

The National Trust and Fund was introduced to protect and manage indigenous knowledge.[171] The National Trust will promote indigenous knowledge, including commercialising knowledge – a tool for economic development under the AfCFTA Agreement.[172] The Trust will also train and educate indigenous people on their rights.[173] The Fund to be created ensures the Trust's smooth financial operation. The transmission of copyrighted indigenous property will only be through licensing, as opposed to the assignment, disposition, or operation of the law.[174]

Section 28D provides that ownership of indigenous knowledge vested in the community means that the benefits generated must accrue to the relevant indigenous community.[175] The Copyright Act also covers the use of copyright work, with and without consent.[176] One significant provision of this Act is copyright protection vested in anonymous or pseudonymous work. This is the reality of most indigenous knowledge, where the initial creator cannot be traced. The owners of copyright works are also entitled to remuneration for any such use of their work.[177]

[168] Section 4 of the IPLAA.
[169] *Ibid*.
[170] n 168 above.
[171] *Ibid*.
[172] n 168 above.
[173] *Ibid*.
[174] n 168 above.
[175] *Ibid*.
[176] n 168 above.
[177] *Ibid*.

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Section 28B(4) states that no indigenous copyright will be registered for indigenous knowledge and associated resources if no prior informed consent was obtained from the relevant authority or indigenous community before such an application.[178] Whoever seeks to register an IPR must prove that they disclose to the relevant body any indigenous knowledge or associated resources that form part of the IPR sought to be registered.[179] Furthermore, the applicant must prove the existence of a benefit-sharing agreement between them and the relevant indigenous community or an agent thereof.[180] If the relevant community establishes any community protocol, the applicant must prove that they have consulted with such a protocol.[181]

It has been outlined that the IPLAA only complicates the legal sphere of IPR, copyright law to be precise.[182] Dean argues that the IPLAA (then Bill) would neutralise the doctrines of the existing IP laws; therefore, the IP laws need to be amended individually, and *sui generis* legislation needs to be introduced to safeguard indigenous knowledge, compared to the holistic approach of the IPLAA.[183] Van der Merwe asks whether foreign indigenous communities are protected within its scope, as pointed out by the IPLAA.[184] It follows that excluding such communities would place South Africa in contravention of the TRIPS Agreement.[185] Regarding its provisions for equal treatment of foreign nationals with South African nationals.[186]

Despite the criticisms of the IPLAA, Geyer argues that even if the IPLAA is not implemented, its provisions can help the legislature design a comprehensive legal framework that integrates IP and indigenous knowledge.[187] This is the same position

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[178] Section 4 of the IPLAA.
[179] *Ibid*.
[180] n 178 above.
[181] *Ibid*.
[182] Owen Dean, 'Traditional knowledge — legislation in the new tradition' (2011) <TRADITIONAL KNOWLEDGE – Legislation in the NEW tradition | CIP - The Anton Mostert Chair of Intellectual Property (sun.ac.za)> accessed 30 June 2024.
[183] See Owen Dean, 'Golden oldies?- Gallo Music v Sting Music' (2012) <GOLDEN OLDIES? – Gallo Music v Sting Music | CIP - The Anton Mostert Chair of Intellectual Property (sun.ac.za)> accessed 30 June 2024; see also Owen Dean, 'Commentary on the Copyright Amendment Bill 2017' (2017) <Microsoft Word - CIP Comments RE *IBID*mendment Bill 2017.docx (sun.ac.za)> accessed 30 June 2024.
[184] André van der Merwe, 'The old and the new: A concise overview of the Intellectual Property Laws Amendment Act' (2014) 28 De Rebus 167 <167.pdf (saflii.org)> accessed 30 June 2024.
[185] See articles 3 and 4 of the TRIPS Agreement.
[186] André van der Merwe, 'The old and the new: A concise overview of the Intellectual Property Laws Amendment Act' 3.
[187] Sunnelle Geyer, 'Copyright in Traditional Works: Unravelling the Intellectual Property Laws Amendment Act Of 2013' (2017) 1 South African Mercantile Law Journal 43 <Copyright in traditional

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this study took that various legal principles could be used to create a single set of rules to safeguard indigenous knowledge in the context of the AfCFTA Agreement.

Oriakhogba states that for work to be recognised as a copyright, it must satisfy the originality and authorship requirements.[188] Given the nature of copyright laws, collaborative work such as indigenous knowledge may need to fit better into the copyright regime.[189] As a result, the rules on copyright must recognise the communal nature of rights over indigenous knowledge. Therefore, the IPLAA may still be used to advance the protection of copyrights in indigenous and associated knowledge. Alternatively, Oriakhogba suggests a system that promotes collaborative work and innovation instead of relying entirely on the IP regime.[190] Furthermore, those who seek to safeguard this aspect of indigenous knowledge could establish NGOs and cooperatives.[191]

Ncube argues that the copyright provisions introduced by the IPLAA burden indigenous people/communities with the negotiation process, which they need to be better prepared for.[192] As a result, she suggests a simple way of dealing with negotiations and entering into agreements and licences, which could be handled by agents, legal practitioners, and well-equipped indigenous leaders.[193]

5.2.1.4. Trade Marks Act[194]

Section 9 of the IPLAA inserts provisions on safeguarding indigenous knowledge through trademarks[195] into the Trade Marks Act.[196] Section 43A states that the Act applies to indigenous expressions, terms, and GI.[197] Section 43B(2) provides

works : unravelling the Intellectual Property Laws Amendment Act of 2013 (journals.co.za)> accessed 30 June 2024.

[188] Desmond Osaretin Oriakhogba, 'Empowering Rural Women Crafters in Kwazulu-Natal: The Dynamics of Intellectual Property, Traditional Cultural Expressions, Innovation and Social Entrepreneurship' 146.

[189] *Ibid*.

[190] n 188 above.

[191] Desmond Osaretin Oriakhogba, 'Empowering Rural Women Crafters in Kwazulu-Natal: The Dynamics of Intellectual Property, Traditional Cultural Expressions, Innovation and Social Entrepreneurship' 147.

[192] Ncube (2016) 43-44.

[193] *Ibid*.

[194] Trade Marks Act 194 of 1993.

[195] Section 9 of the IPLAA.

[196] *Ibid.*

[197] n 195 above.

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indigenous terms or phrases that constitute certification, collective marks, or GI.[198] With the registration of such terms or expressions as either a trademark or a GI, such terms or expressions shall distinguish the indigenous goods and services of one community from the indigenous goods and services of another indigenous community.[199]

Section 28H(3) states that the parties to an agreement for the usage of copyright work shall agree on the benefits that will be shared,[200] In the presence of such an agreement, the value of benefits will be determined by the current value as and when determined by the relevant authority.[201]

The Act provides further that FPIC, access, benefit sharing, and prior art disclosure requirements must have been complied with.[202] Even with indigenous trademarks, no IPR will be registered concerning indigenous knowledge and associated resources if no prior informed consent is obtained from the relevant authority or indigenous community before such an application.[203] Whoever seeks to register an IPR must prove that they disclose to the relevant body any indigenous knowledge or associated resources that form part of the IPR sought to be registered.[204]

Furthermore, the applicant must prove the existence of a benefit-sharing agreement between them and the relevant indigenous community or an agent thereof.[205] If the relevant community establishes any community protocol, the applicant must prove that they have consulted with such a protocol.[206]

Geyer offers a critical definition of “indigenous,” which provides an understanding of indigenous knowledge.[207] Safeguarding indigenous knowledge in the IP regime

[198] Section 9 of the IPLAA.
[199] *Ibid*.
[200] n 198 above.
[201] *Ibid*.
[202] n 198 above.
[203] *Ibid*.
[204] n 198 above.
[205] *Ibid*.
[206] n 198 above.
[207] Sunnelle Geyer, ‘Towards a clearer definition and understanding of “indigenous community” for the purposes of the Intellectual Property Laws Amendment Bill, 2010: An exploration of the concepts “indigenous” and traditional”’ (2010) 13(4) Potchefstroom Electronic Law Journal 127 <v13n4a06.pdf (scielo.org.za)> accessed 02 July 2024.

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requires knowledge of what it is.[208] He defined traditional work as work that originated and has since acquired the status of a traditional work by such origin.[209] However, Geyer stresses that conventional and indigenous were used in different contexts, meaning they are probably not synonyms.[210] He argues, however, that the definition used for indigenous communities[211] and traditional works[212] means the same thing. I argue that the terms indigenous and traditional mean the same thing. This study has, therefore, adopted the term "indigenous knowledge" to mean knowledge described as either conventional or local in other literature.

Oriakhogba states that indigenous knowledge and expressions of folklore include tangible and non-tangible works of patterns, signs, designs, songs, artefacts, rituals, stories, and dances.[213] He answers whether the use of trademarks is adequate for safeguarding indigenous knowledge.[214] He argues that indigenous terms and expressions meet the requirements of marks, as defined in the IPLAA.[215] However, he stressed that the IPLAA needs to be more active in determining whether a certification or a collective mark should be used to safeguard this knowledge.[216]

The IPLAA also needs to provide for whether certain groups forming parties to indigenous communities would need to obtain consent for them to continue developing and selling specific work that has become part of the indigenous identity, as argued

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[208] Sunnelle Geyer, 'Towards a clearer definition and understanding of "indigenous community" for the purposes of the Intellectual Property Laws Amendment Bill, 2010: An exploration of the concepts "indigenous" and traditional"' 127.
[209] *Ibid*.
[210] Sunnelle Geyer, 'Towards a clearer definition and understanding of "indigenous community" for the purposes of the Intellectual Property Laws Amendment Bill, 2010: An exploration of the concepts "indigenous" and traditional"' 128-130.
[211] Defined as a "Community of people currently living within the borders of the Republic, or who historically lived in the geographic area currently located within the borders of the Republic." See Sunnelle Geyer, 'Towards a clearer definition and understanding of "indigenous community" for the purposes of the Intellectual Property Laws Amendment Bill, 2010: An exploration of the concepts "indigenous" and traditional"' 132.
[212] *Ibid.*
[213] Desmond Osaretin Oriakhogba, 'Empowering Rural Women Crafters in Kwazulu-Natal: The Dynamics of Intellectual Property, Traditional Cultural Expressions, Innovation and Social Entrepreneurship' 161.
[214] Desmond Osaretin Oriakhogba, 'Empowering Rural Women Crafters in Kwazulu-Natal: The Dynamics of Intellectual Property, Traditional Cultural Expressions, Innovation and Social Entrepreneurship' 163.
[215] Desmond Osaretin Oriakhogba, 'Empowering Rural Women Crafters in Kwazulu-Natal: The Dynamics of Intellectual Property, Traditional Cultural Expressions, Innovation and Social Entrepreneurship' 163-164.
[216] Desmond Osaretin Oriakhogba, 'Empowering Rural Women Crafters in Kwazulu-Natal: The Dynamics of Intellectual Property, Traditional Cultural Expressions, Innovation and Social Entrepreneurship' 164.

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by Oriakhogba.[217] As an alternative, indigenous people in this situation would rely on the Copyright Act to safeguard their artistic work.[218] In cases where this IP regime effectively safeguards indigenous knowledge, indigenous communities could be assisted through educational programmes on how this regime works, with financial assistance, and by promoting the recognition of collaborative work in the IP regime.[219]

5.2.1.5. Designs Act[220]

Section 12 of the IPLAA[221] also amended the Designs Act.[222] Unlike amendments for copyrights and trademarks, amendments to the Designs Act[223] will apply even before the indigenous knowledge is acquired and is a retrospective effect. Protection is for new designs that derive features from the indigenous community and knowledge.[224] The other provisions on FPIC, ABS, prior art disclosure, the National Trust, the Fund, and dispute settlement are similar to the previously discussed terms in the Copyright Act.[225]

This section explores various IPRs as amended by the IPLAA. This framework may guide the development of guidelines for safeguarding indigenous knowledge in the AfCFTA framework. In summary, this framework mainly focuses on creating databases to store indigenous knowledge-related information, trust, and funds for operation as dispute-resolution mechanisms, and it suggests prioritising FPIC, ABS agreement, and prior art disclosures. The subsequent sections extend the scope of *sui generis* IP protection of indigenous knowledge in South Africa.

Section 53B(3) states that no indigenous design shall be registered for indigenous knowledge and associated resources unless prior informed consent is obtained from

[217] Desmond Osaretin Oriakhogba, 'Empowering Rural Women Crafters in Kwazulu-Natal: The Dynamics of Intellectual Property, Traditional Cultural Expressions, Innovation and Social Entrepreneurship' 165.
[218] *Ibid*.
[219] Desmond Osaretin Oriakhogba, 'Empowering Rural Women Crafters in Kwazulu-Natal: The Dynamics of Intellectual Property, Traditional Cultural Expressions, Innovation and Social Entrepreneurship' 166.
[220] Designs Act 195 of 1993.
[221] See section 12 of the IPLAA.
[222] n 221 above.
[223] *Ibid*.
[224] n 221 above.
[225] *Ibid*.

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the relevant authority or indigenous community before such an application.[226] Whoever seeks to register an IPR must prove that they disclose to the appropriate body any indigenous knowledge or associated resources that form part of the IPR sought to be registered.[227] Furthermore, the applicant must prove the existence of a benefit-sharing agreement between them and the relevant indigenous community or an agent thereof.[228]

Furthermore, if the relevant community establishes any community protocol, the applicant must prove that they have consulted with such a protocol.[229] Section 53B(5) allows a collective indigenous community to apply for registration of an indigenous design.[230]

Regarding indigenous designs, inferences may be drawn from the work of Cilliers[231] that the IPLAA adequately situates designs as an appropriate regime to safeguard the design aspects of indigenous knowledge. He defined indigenous design as either a functional[232] or aesthetic[233] design with an indigenous origin, in that the creator thereof was, at the time of creation, a member of an indigenous community, and such creation was accepted as part of that indigenous community.[234]

Of importance, Cilliers submits that an ABS agreement must have been entered before an indigenous design can be registered prior to art disclosure.[235] This is an opportunity to foster economic development in indigenous communities, as the creator of a design would be entitled to royalties following its use of an indigenous design.[236]

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[226] Section 12 of the IPLAA
[227] *Ibid*.
[228] n 226 above.
[229] *Ibid*.
[230] n 226 above.
[231] Lodewyk Cilliers, 'Designs' in Owen Dean and Alison Dyer (Eds), Introduction to intellectual property (Oxford University Press 2014) 296.
[232] What a design was created to do.
[233] The appearance of a design.
[234] Cilliers (2014) 326.
[235] Cilliers (2014) 328.
[236] Cilliers (2014) 330.

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5.2.2. Patents Amendment Act[237]

The Patents Amendment Act was amended to provide specific definitions, recognition of indigenous people involved in the inventive steps, and other related issues.[238] Section 3A requires an applicant for a patent to disclose whether the subject matter is based on indigenous biological or genetic resources and knowledge.[239] This builds on prior art, ABS, and informed consent agreements covered in the abovementioned legislation.

With this framework that introduces ABS to the IP framework, it is essential to explore how some policy frameworks have been structured to inform the development of rules for safeguarding indigenous knowledge in the context of the AfCFTA Agreement. The preceding and subsequent discussions focus on the South African policy and regulatory framework for ABS and explore practical case studies and experiences with how these have been implemented. Before discussing these issues, this section examines the academic literature on the impact of the Patents Amendment Act on safeguarding indigenous knowledge. It outlines various viewpoints on and against including indigenous knowledge in the patent regime.

Tong submitted that the rules for safeguarding indigenous knowledge in the IP regime must conform to the Constitution.[240] She further submits that IP, although not explicitly mentioned, falls within the ambits of Section 25 of the Constitution,[241] which provides for the non-deprivation of one's property without a reasonable justification.[242] Therefore, the protection of IPR, including indigenous knowledge, can be approached from the traditional property approach provided by the Constitution.

Tong submits that if the *Hoodia Gordonii* appropriation[243] had occurred when the Patents Amendment Act was in place, no patent would have been granted without necessary consultations with the San people.[244] This shows the importance of the

[237] 20 of 2005.
[238] See Preamble to the Patents Amendment Act 20 of 2005.
[239] Section 3A of the Patents Amendment Act 20 of 2005.
[240] Lee-Ann Tong, 'Aligning the South African intellectual property system with traditional knowledge protection' 181.
[241] *Ibid*.
[242] See section 25 of the Constitution.
[243] This chapter explores this case study later.
[244] Lee-Ann Tong, 'Aligning the South African intellectual property system with traditional knowledge protection' 182.

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Patents Amendment Act in safeguarding the interests of indigenous communities. Tong, however, raises concerns about the Patents Amendment Act – that its failure to require prior art disclosures and FPIC in applications for indigenous knowledge concerning genetic and biological resources creates discrepancies in implementation.[245]

To resolve this, this study argues for applying ABS, FPIC, and prior art disclosures in all aspects of indigenous knowledge. Therefore, this chapter states that rules on ABS, FPIC, and prior art disclosures should not be applied conditionally. Furthermore, the regulations on safeguarding indigenous knowledge should address the patent application in other jurisdictions, unlike the Patents Amendment Act, by confining its application within the South African jurisdiction.

Amechi also addressed using the patent system to safeguard indigenous knowledge in South Africa.[246] He argued that the current conventional patent system has helped misappropriate indigenous knowledge.[247] Amechi submits that South Africa's approach to addressing this challenge included the National Recordal System (NRS) and the Disclosure of Origins System (DOS), which then opened up the use of the patent system to safeguard indigenous knowledge effectively.[248] For example, the Companies Industrial Property Commission can use this system to search for existing records of indigenous knowledge.[249] These would help examiners determine potential infringement, as well as the owners and other interested parties, to object to applications where certain aspects of indigenous knowledge are implicated.[250]

In addition, the DR helps safeguard indigenous knowledge in the IP regime. DR requires patent applicants to disclose any use of indigenous knowledge or knowledge-based and associated resources.[251] Amechi argues that the Patents Amendment Act

[245] *Ibid*.
[246] Emeka Polycarp Amechi, 'Leveraging Traditional Knowledge on the Medicinal Uses of Plants Within the Patent System: The Digitisation and Disclosure of Knowledge in South Africa' (2015) 18(1) Potchefstroom Electronic Law Journal 3072 <1.pdf (saflii.org)> accessed 01 July 2024.
[247] Emeka Polycarp Amechi, 'Leveraging Traditional Knowledge on the Medicinal Uses of Plants Within the Patent System: The Digitisation and Disclosure of Knowledge in South Africa' 3073.
[248] Emeka Polycarp Amechi, 'Leveraging Traditional Knowledge on the Medicinal Uses of Plants Within the Patent System: The Digitisation and Disclosure of Knowledge in South Africa' 3074.
[249] Emeka Polycarp Amechi, 'Leveraging Traditional Knowledge on the Medicinal Uses of Plants Within the Patent System: The Digitisation and Disclosure of Knowledge in South Africa' 3079-3084.
[250] *Ibid*.
[251] Emeka Polycarp Amechi, 'Leveraging Traditional Knowledge on the Medicinal Uses of Plants Within the Patent System: The Digitisation and Disclosure of Knowledge in South Africa' 3085-3086.

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derived its compulsory provisions for disclosure requirements from this system.[252] Therefore, safeguarding indigenous knowledge in the context of the AfCFTA Agreement would require considering these systems. A conclusion drawn from this literature is that the Patents Amendment Act is well-designed to safeguard indigenous knowledge.[253]

Feris acknowledged the difficulty of using a patent system to safeguard indigenous knowledge.[254] However, he submits that the fact that it may not fit in the patent system based on the ownership requirement cannot entirely be grounds for not granting a patent.[255] This is because contemporary practice recognises patents as collaborative endeavours.[256] Regarding novelty, Feris submits that indigenous knowledge continues to be advanced; therefore, closing it out does not have a legal or rational basis.[257] Furthermore, he argues that indigenous knowledge offers practical solutions, such as medicine and agriculture, [258] and therefore meets the "industrial" criteria.

An IP regime adapted for indigenous knowledge is considered a *sui generis* IP regime.[259] As the above literature argues, this follows the incompatibility between the IP regime and indigenous knowledge.[260] Another alternative may be creating new models for IP protection of indigenous knowledge.[261]

Saurombe also comments on safeguarding indigenous knowledge in the IP regime by focusing on the Intellectual Property Laws Amendment Bill.[262] He submits that there

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[252] Emeka Polycarp Amechi, 'Leveraging Traditional Knowledge on the Medicinal Uses of Plants Within the Patent System: The Digitisation and Disclosure of Knowledge in South Africa' 3087-3089.
[253] See also Emeka Polycarp Amechi, 'Using Patents to Protect Traditional Knowledge on the Medicinal Uses of Plants in South Africa' (2015) 11(1) Law, Environment and Development Journal 51 <Emeka Polycarp Amechi, 'Using Patents to Protect Traditional Knowledge on the Medicinal Uses of Plants in South Africa', 11/1 Law, Environment and Development Journal (2015), p. 51,> accessed 01 July 2024.
[254] Loretta Feris, 'A legal framework for the protection of biodiversity related traditional knowledge' 10-11.
[255] Loretta Feris, 'A legal framework for the protection of biodiversity related traditional knowledge' 11.
[256] *Ibid*.
[257] n 355 above.
[258] *Ibid*.
[259] Adam Andrzejewski, 'Traditional Knowledge and Patent Protection: Conflicting Views on International Patent Standards' (2010) 13(4) Potchefstroom Electronic Law Journal 94 <View of Traditional Knowledge and Patent Protection: Conflicting Views On International Patent Standards (perjournal.co.za)> accessed 01 July 2024.
[260] Adam Andrzejewski, 'Traditional Knowledge and Patent Protection: Conflicting Views on International Patent Standards' 111.
[261] See Adam Andrzejewski, 'Traditional Knowledge and Patent Protection: Conflicting Views on International Patent Standards' 109-110.
[262] Amos Saurombe, 'The Protection of Indigenous Traditional Knowledge through the Intellectual Property System and the 2008 South African Intellectual Property Law Amendment Bill' (2009) 4(3)

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are patentable inventions associated with indigenous knowledge. In anticipation of the Bill becoming law, he submits that the law holds promise for safeguarding indigenous knowledge.[263]

The following comments were made on the Bill: The Bill was said to cover too many aspects of IP issues and, as a result, individual Bills on various IPRs were suggested; the individual consultation was not well defined and emphasised; it is non-comprehensive, the creation of the database; the first-come-basis system of registration should be struck off; community representatives could be expanded to promote comprehension; the Bill should have been Afrocentric; it should focus more on the sustainable use of indigenous knowledge; it should establish ownership of indigenous knowledge efficiently; the Bill could have covered indigenous knowledge that is regarded as secret and taboo; and it could have detailed the dispute-resolution mechanisms.[264]

In conclusion, despite criticisms, the Patents Amendment Act paves the way for adequate safeguarding of indigenous knowledge in the IP regime. Notably, it established compulsory prior art disclosures, FPIC, and ABS. The following section explores how these principles were accommodated in South Africa and how they can be implemented. This would help consolidate specific measures for implementing FPIC, ABS, prior art, and safeguarding IPR in the context of the AfCFTA Agreement.

5.2.3. Preliminary remarks

Drawing from the IKS Policy and the IKS Policy framework, the IP regime safeguarding indigenous knowledge in the context of the AfCFTA Agreement must promote and balance the socio-economic development of indigenous communities.

First, the discussion of the IKS Policy indicates that safeguarding indigenous knowledge should involve the establishment of advisory and development-focused programmes, creating a robust IP framework, and introducing a record system. While AfCFTA aims to foster economic development, it can achieve this without neglecting

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Journal of International Commercial Law and Technology 196 <4. Amos Saurombe (neliti.com)> accessed 01 July 2024.

[263] *Ibid*.

[264] Amos Saurombe, 'The Protection of Indigenous Traditional Knowledge through the Intellectual Property System and the 2008 South African Intellectual Property Law Amendment Bill' 201.

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the rights of indigenous communities. Furthermore, another point identified is the inclusion of women and indigenous leaders as stakeholders in indigenous knowledge.

Furthermore, the IKS Policy indicates that establishing an office dedicated to safeguarding indigenous knowledge is an opportunity for the AfCFTA Agreement. In addition, responsible authorities should introduce a system for capacity-building, which would include the creation of information systems databases, indigenous knowledge centres, and libraries. If integrated into the AfCFTA context, these mechanisms can promote and foster respect, development, and safeguarding of indigenous knowledge.

Second, The AfCFTA Agreement may draw inferences from the policy framework for protecting indigenous traditional knowledge. The framework promotes the use of IPR, such as in patents, trademarks, GI, copyrights, performers' rights, and designs. By implementing these, the AfCFTA Agreement would recognise various IPRs in indigenous knowledge.

Finally, this discussion considered various IP frameworks that outline how indigenous knowledge is integrated into the IP regime. Notably, the debate about IP frameworks shows that safeguarding indigenous knowledge requires establishing an institutional framework that promotes, manages, and protects indigenous knowledge. It was outlined that safeguarding indigenous knowledge should ensure transparency on who owns it, who should represent the indigenous communities, the definition of critical terms, and the recognition of IPR in indigenous knowledge.

The following section explores how the legal and policy frameworks for biodiversity-related indigenous knowledge and resources have been implemented in South Africa.

5.3. Biodiversity legal frameworks

5.3.1. Introduction

Exploring and accessing biological resources and associated indigenous knowledge is governed by the National Environmental Management: Biodiversity Act[265] and the

[265] National Environmental Management: Biodiversity Act 10 of 2004. Hereinafter referred to as the Biodiversity Act 10 of 2004.

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Bioprospecting, Access, and Benefit-Sharing Amendments Regulations (BABS Amendment Regulations).[266] Therefore, before examining these regulations, it is essential to outline what these two frameworks provide, laying the foundation for principles on the implementation of benefit-sharing agreements for commercialising indigenous knowledge in the context of the AfCFTA Agreement.

5.3.2. National Environmental Management: Biodiversity Act

Section 1 of the Act defines indigenous biological resources with an indigenous origin, such as living or non-living organisms or a derivative thereof.[267] It further states that indigenous species were initially found within South Africa's borders.[268] The Act aims to regulate management and conservation, sustainably use biological resources and associated indigenous knowledge, introduce and implement access and equitable resource-sharing, and govern these resources.[269]

Section 80 seeks to regulate the expropriation of biological resources and associated indigenous knowledge, commercialise the same, and regulate the benefit sharing of these resources.[270] Section 81 states that every person expropriating and trading biological resources and the associated indigenous knowledge must have a permit to do so.[271] Before such a permit is granted, the applicant must indicate the interests of indigenous group(s) or individuals, including the state, that may be involved in the subject matter.[272]

The applicant must disclose all material information related to the subject matter.[273] Furthermore, the applicant must prove that a benefit-sharing agreement between them and the indigenous group/people has been entered into.[274] The applicant must also prove that a deal for material transfer has been reached.[275] Reliance on such agreements depends on the approval of the relevant Minister. These provisions imply,

[266] Hereinafter referred to as the BABS Amendment Regulations <Bioprospecting, Access and Benefit-Sharing Amendments Regulations, 2015, South Africa, WIPO Lex> accessed 10 June 2024.
[267] Section 1 of the Biodiversity Act 10 of 2004.
[268] *Ibid*.
[269] See generally the Biodiversity Act 10 of 2004.
[270] See section 80 of the Biodiversity Act 10 of 2004.
[271] Sections 81(a) and (b) of the Biodiversity Act 10 of 2004.
[272] Section 80(1) of the Biodiversity Act 10 of 2004.
[273] Section 80(2)(a) of the Biodiversity Act 10 of 2004.
[274] Section 80(2)(b)(ii) of the Biodiversity Act 10 of 2004.
[275] Section 80(2)(b)(iii) of the Biodiversity Act 10 of 2004.

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in the context of the AfCFTA Agreement, that when the AU is implementing ABS, such agreements must be further accessed, ensuring that the needs of indigenous people have been catered for. The permit-issuing authority can query any application for a licence and facilitate negotiations to ensure that they are fair and equitable.[276]

Section 83 outlines the structure of benefit-sharing agreements.[277] A benefit-sharing agreement must indicate the indigenous resource to which a subject matters.[278] The agreement also indicates the location where the resources are found.[279] The quantity and various uses of these resources by indigenous communities must be determined.[280] If discovered, the parties must also indicate other potential uses of the indigenous resource.[281] Section 84 provides conditions similar to access and benefit-sharing agreements for material transfer agreements.[282]

Another vital aspect of this Act is the provision for offences and penalties.[283] It is provided that people found expropriating and trading in biological resources and the associated indigenous knowledge would be guilty of an offence and fined.[284] It is essential that the safeguarding of indigenous knowledge in the AfCFTA Agreement contains a clause on contravention and penalties. This deters others from committing similar offences.

5.3.3. BABS Regulations

As an amendment to the 2008 BABS Regulations,[285] the 2015 BABS Amendment Regulations strengthened the safeguarding of biological resources and associated knowledge.[286] They seek to achieve this by requiring notification to the relevant authority of any indigenous resources used by any third party,[287] prescribing a

[276] See section 82(4) of the Biodiversity Act 10 of 2004.
[277] See generally section 83 of the Biodiversity Act 10 of 2004.
[278] Section 83(1)(a) of the Biodiversity Act 10 of 2004.
[279] Section 83(1)(b) of the Biodiversity Act 10 of 2004.
[280] *Ibid*.
[281] n 279 above.
[282] See section 84 of the Biodiversity Act 10 of 2004.
[283] See chapter 9 of the Biodiversity Act 10 of 2004.
[284] *Ibid*.
[285] BABS Regulations, 2008 (hereafter, BABS Regulations) < DEA Guidelines_June 2012_for print.indd (dffe.gov.za)> accessed 11 June 2024.
[286] Section 2 of the BABS Amendment Regulations, 2015.
[287] Section 2(1)(a) of the BABS Amendment Regulations, 2015.

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systematic approach to permits,[288] setting the form and contents of ABS agreements[289] and, lastly, the administration of the trust fund for bioprospecting.[290] This section explores these aspects in anticipation of using them to safeguard indigenous knowledge and associated resources in the context of the AfCFTA Agreement.

Part 3 of the BABS Amendment Regulations covers the issuance of permits for bioprospecting for commercial purposes.[291] The Regulations stipulate that the permit indicated in the Biodiversity Act can only be applied for and granted to a South African juristic person, a South African natural person, or a non-South African person jointly with a South African person.[292] Such permits will be for commercialising biological resources and the associated indigenous knowledge.[293]

An application for either use or commercialisation, or a mixture of both, must be accompanied by proof of prior informed consent, a signed agreement for material transfer, ABS and, in the absence of the above, evidence of involvement by the relevant authority.[294] An application must disclose the exact resources of indigenous origin to be accessed and used, the quantity thereof, the source of such indigenous resources, and the purpose of such access.[295]

Chapter Four of the Regulations lists requirements for indigenous knowledge's access and use agreements and associated resources.[296] Section 39(3) states that ABS agreement must ensure the sustainable existence of indigenous resources and the enhancement, development and use of associated indigenous knowledge, and fostering socio-economic and cultural development.[297] Furthermore, an agreement must be fair and equitable.[298] Depending on the availability of funds, they must be

[288] Section 2(1)(b) of the BABS Amendment Regulations, 2015.
[289] Section 2(1)(c) of the BABS Amendment Regulations, 2015.
[290] Section 2(1)(d) of the BABS Amendment Regulations, 2015.
[291] See Part 3 of the BABS Amendment Regulations, 2015.
[292] See section 12 of the BABS Amendment Regulations, 2015 <DEA Guidelines_June 2012_for print.indd (dffe.gov.za)> accessed 11 June 2024.
[293] Section 15 of the BABS Amendment Regulations, 2015.
[294] See sections 16, 17 and 18 of the BABS Amendment Regulations, 2015.
[295] See generally section 19 of the BABS Amendment Regulations, 2015.
[296] Chapter four of the BABS Amendment Regulations, 2015.
[297] Section 39(3)(a) - (e) of the BABS Amendment Regulations, 2015.
[298] Section 39(6)(a) of the BABS Amendment Regulations, 2015.

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used to ensure capacity-building for the relevant stakeholders and must support research-based initiatives to safeguard indigenous knowledge.[299]

The 2008 BABS Regulations[300] contain important provisions that may help design specific rules for safeguarding indigenous knowledge in the context of the AfCFTA Agreement. These Regulations stipulate that the bioprospector should fully inform the community about the intended use of indigenous biological resources or traditional knowledge before they consent. Consent should come by enjoying the benefits of using their knowledge by third parties.[301] The relevant authority must consult experts, technical advisors, the public, and concerned indigenous communities to determine the fairness of rules for accessing and using indigenous knowledge by third parties/ external stakeholders.[302] The BABS Regulations suggest policy considerations for providers, users, and regulators of indigenous knowledge and associated resources.

Section two of the BABS Regulations focuses on providers of biological resources and associated indigenous knowledge.[303] Providers make their indigenous knowledge and associated biological resources available to third parties. In this category, some give access to biological resources and related indigenous knowledge, and some give out the materials on a first-come basis. In this case, the power to provide access emanates from ownership and control over an area where such resources are found.

The benefits generated from indigenous resources depend on the maturity stage.[304] In this case, some benefits may accrue during the discovery, and those would accrue on the commercialisation of a resource. For example, an indigenous person/community may decide that they need to be compensated for providing information regardless of the potential commercialisation of the knowledge they are providing; on the other hand, an indigenous community/people may demand that they be compensated from the revenue that would be made from the information they are sharing.[305]

[299] Section 40(5) of the BABS Amendment Regulations, 2015.
[300] n 285 above.
[301] See section 2(5) of the BABS Amendment Regulations, 2015.
[302] Section 39(6)(b) and (c) of the BABS Amendment Regulations, 2015.
[303] section 2 of the BABS Regulations, 2008.
[304] See 2 section 2(3) of the BABS Regulations, 2008.
[305] *Ibid*.

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For indigenous resources belonging to an indigenous community, the following should be considered: the representative in negotiation processes must be authorised to be such by the indigenous community concerned. Consent must be verifiable, meaning it should be in a format that can serve as proof for any member of the concerned indigenous community to verify such. It must also be proven that the indigenous community has been informed of the intended purpose of exploring resources. Before providing consent, the bioprospector should fully notify the community of the intended use of indigenous biological resources or traditional knowledge. There must be an indication of the benefits the indigenous people stand to gain by allowing third parties access to their indigenous knowledge.[306]

It is provided that the appropriator must be able to determine the following: identity, representative proof, subject matter, and other identical information; the purpose of appropriation; the place where research is to take place; other interested parties; the budget for such venture; potential benefits; local members' employment; a benefit-sharing plan; the impact of exploration; the confidentiality of the processes involved; and update and report methods.[307]

As a provider, one would expect to outline how the benefits generated would be shared. For indigenous communities, there must be a description of the community and the credentials of the person who represents the community. Furthermore, a resolution must be adopted, indicating that the community concerned appoints the representative. A representative must represent such a resolution. The resolution must also show that the indigenous community members know, understand and consent to the project.[308] The provider must determine the frequency of agreement review. Furthermore, the provider can enter into these agreements with as many people as they wish to, provided they indicate that the deal is exclusive.

Since there are two options for benefits, monetary and non-monetary, the provider must ensure that they stipulate the benefits they wish to obtain from the agreement. For monetary options, providers must be aware that such monies would have to be

[306] See section 2(5) of the BABS Regulations, 2008.
[307] *Ibid*.
[308] n 306 above.

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paid to the Trust established in terms of the Act, and this would be annually unless an alternative has been stipulated in the agreement.[309]

ABS agreements must stipulate how to handle the resolution of disputes.[310] As an alternative to traditional courts, parties could agree that mediation be used to resolve disputes.[311] In cases where mediation fails, the parties can use arbitration, where an independent and impartial arbitrator must be appointed.[312] It is also essential to clearly state how agreement disputes will be resolved. The agreement must also stipulate how a mediator and an arbitrator will be appointed and what would need to be done in cases where the parties cannot agree on such an appointment.[313] Higher authorities may have to intervene to ensure that access- and benefit-sharing agreements are fair and equitable.[314] This may include chairing negotiations and reviewing agreements. They can be arbitrators or mediators, as mentioned in the above discussion.[315]

The users of indigenous resources vary, and the rules in the Biodiversity Act and BABS Regulations may apply differently.[316] These users may include those exploring indigenous resources for commercial and non-commercial purposes.[317] For this study, exploring indigenous resources for commercial purposes is the focal point, as is the objective of the AfCFTA Agreement, which is to use indigenous knowledge as a tool for trade, contributing to sustainable economic development in Africa. Any indigenous resource user must ensure that their work is ethical.[318]

An application to authorities must show that the potential user of a resource has conducted adequate research to identify the possible owners of an indigenous resource.[319] This should be done through fieldwork, desktop research, and perusing

[309] See section 2(9)(1) of the BABS Regulations, 2008.
[310] See section 2(9)(2) of the BABS Regulations, 2008.
[311] *Ibid*.
[312] n 310 above.
[313] *Ibid*.
[314] Section 2(10) of the BABS Regulations, 2008.
[315] *Ibid*.
[316] See section 3(1) of the BABS Regulations, 2008.
[317] *Ibid*. for example, researchers; traders; companies; and importers.
[318] See section 3(5) of the BABS Regulations, 2008. History has taught us that the users are willing to take all the risks to avoid complying with the needs of the indigenous people. Therefore, measures must be introduced to ensure that these users actually adhere to the rules and regulations. This can include monitoring processes by the authorities.
[319] Section 3(6) of the BABS Regulations, 2008.

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archives.[320] Users may also publish in an accessible form of media to allow interested parties to comment on their interests in the proposed indigenous resource.[321] The registering authority should also be able to help the user verify the knowledge in question.[322]

Once the owners of an indigenous resource have been identified, the user must obtain FPIC.[323] Users must disclose what they intend to do with the knowledge, collection procedure, and potential outcomes. The FPIC should be negotiated and concluded understandably and clearly.[324] This should include the use of local languages and translators, where necessary.[325] In the application and registration of FPIC, a user may have to prove that FPIC was obtained by producing documentary evidence, and a letter or resolution must serve as evidence that such FPIC was obtained.[326]

The user must first ensure that material transfer and benefit-sharing agreements have been entered into. A material transfer agreement provides the third-party access to a resource. In contrast, a benefit-sharing agreement ensures that the indigenous people/communities share benefits from such an agreement.[327] Fair and equitable terms imply that the procedure used to obtain consent must have been fair and that the outcome of such an agreement is shared equally between the parties.[328]

The BABS Regulations also guide authorities in assessing and reviewing permits and access and benefit sharing (ABS) agreement .[329] They guide these authorities in negotiating processes and determine procedures for evaluating ABSA.[330] In this process, these authorities must also consider laws outside the scope of the subject matter.[331] For example, if one applies for ABS of biological resources, the authority may borrow principles from environmental law, intellectual property law, and human rights. This ensures open options, thereby extending the scope of protection.

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[320] *Ibid*.
[321] n 319 above.
[322] *Ibid*.
[323] Section 3(7) of the Guidelines.
[324] *Ibid*.
[325] n 323 above.
[326] *Ibid*.
[327] n 323 above.
[328] *Ibid*.
[329] See section 4 of the BABS Regulations, 2008.
[330] *Ibid*.
[331] Section 4(3) of the BABS Regulations, 2008.

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As part of public law and governance, authorities may invite the public to comment on an ABS agreement, provided that confidential information, if any, has been filtered out.[332] In assessing whether an agreement is fair, authorities may consult experts in relevant areas further. Regulators act as compliance stakeholders by assessing, revising, participating, and evaluating agreements and other issues incidental to the agreements.

Bagley comments on the impact of the Biodiversity Act and BABS Regulations on safeguarding indigenous knowledge in South Africa.[333] One of the critical impacts of the Biodiversity Act is the recognition of secret and readily available indigenous knowledge in public.[334] This creates an impression that it does not matter which sphere or status of indigenous knowledge should be safeguarded. Although she acknowledges that South Africans raised some comments that licensing access to indigenous knowledge was impractical and unnecessarily restrictive,[335] I concede to Bagley's argument,[336] that the use of licences to safeguard indigenous knowledge will encourage prospectors to follow due process, with the failure of which leading to the imposition of penalties.

However, Bagley raised the issue that obtaining consent from legitimate indigenous knowledge rights holders may be challenging.[337] As a result, she endorses the issue of government institutions asking indigenous leaders to negotiate and enter ABS agreement.[338] Furthermore, she supported the idea that community protocols may help determine engagement methods with indigenous leaders regarding the ABS of their knowledge and associated resources.[339]

As developing these protocols may be challenging, Bagley suggested that governmental institutions raise awareness and educate the indigenous community on

[332] See section 4(3)(1) and (2) of the BABS Regulations, 2008.
[333] Margo Bagley, 'Towards an effective indigenous knowledge protection regime. Case study of South Africa' 4-14; See also, Beharie (2014) 336-338.
[334] Margo Bagley, 'Towards an effective indigenous knowledge protection regime. Case study of South Africa' 7.
[335] *Ibid*.
[336] n 334 above.
[337] Margo Bagley, 'Towards an effective indigenous knowledge protection regime. Case study of South Africa' 8.
[338] *Ibid*.
[339] Margo Bagley, 'Towards an effective indigenous knowledge protection regime. Case study of South Africa' 9.

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navigating this process. Furthermore, she raised the issue of determining the legitimate owner of indigenous knowledge.[340] A solution would be recognising an individual, where possible, or the community where the person lived when a particular aspect of indigenous knowledge was discovered. In cases where the latter is impossible, incentives are paid to a fund established under a relevant framework, which would benefit indigenous communities.

Bagley argues that a mixture of approaches in safeguarding indigenous knowledge adopted by South Africa is the most efficient approach.[341] This includes combining the previously discussed IP laws and protective and defensive measures. As a result, South Africa has adopted a *sui generis* legal framework to safeguard indigenous knowledge.

The subsequent discussion outlines this legal framework and hints at possible measures to protect indigenous knowledge in the context of the AfCFTA Agreement.

5.4. A *sui generis* legal framework: The Protection, Promotion, Development, and Management of Indigenous Knowledge Act

As part of South Africa's quest to design a *sui generis* system to protect indigenous knowledge, the government enacted the IK Act.[342] This section examines the Act to establish the best practices and mechanisms through which indigenous knowledge can be protected in the context of the AfCFTA Agreement.

The Act was enacted to safeguard, promote, develop, and manage indigenous knowledge. Furthermore, the Act seeks to establish an institutional framework that would guide an indigenous knowledge system office on how the institution would manage indigenous expertise in the best interests of indigenous communities. As explored in this section, the Act also aims to establish an advisory committee responsible for various administrative and advisory duties. The Act seeks to guide the

[340] Margo Bagley, 'Towards an effective indigenous knowledge protection regime. Case study of South Africa' 10.
[341] Margo Bagley, 'Towards an effective indigenous knowledge protection regime. Case study of South Africa' 17-24.
[342] 6 of 2019, assented by the president on the 19 August 2019.

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facilitation and execution of various indigenous knowledge principles and other matters related to indigenous knowledge.[343]

The Act recognises the colonial and racial segregation the people of South Africa have experienced and therefore relies on the establishment of democracy as the basis for safeguarding indigenous knowledge.[344] Recognising the unfortunate past of South African indigenous people/communities is essential to understand the rationale behind preserving knowledge. The Act is premised on everyone having RTD, including equality, human dignity, education, culture, religion, research, language, environment, creativity, and property.[345] The Constitution of the Republic of South Africa also protects these rights and values.[346]

The Act notes the country's position in advancing its citizens' socio-economic and cultural rights while realising that this duty aligns with RTD and the economic development objectives of the AfCFTA. It seeks to promote the use of indigenous knowledge to propel socio-economic development.[347] It also recognises the diversity in indigenous communities.[348]

Section 1 defines indigenous knowledge as knowledge developed in the indigenous context and forming part of a specific indigenous community's social and cultural livelihood.[349] This knowledge includes functional mark-ups, natural resources, and cultural expressions.[350] It also defines an indigenous community as a community developed in a particular geographic area, where the socio-economic and cultural conditions of living distinguish that community from another, and the people who live there also recognise their distinct character when compared with others.[351]

The Act applies to all indigenous knowledge registered in the Act.[352] The Act's objectives are to safeguard indigenous knowledge from unauthorised access and

[343] See title of the IK Act 6 of 2019.
[344] See Preamble to the IK Act 6 of 2019.
[345] *Ibid*.
[346] See Chapter Two of the Constitution of the Republic of South Africa, 1996.
[347] n 344 above.
[348] *Ibid*.
[349] Section 1 of the IK Act 6 of 2019.
[350] *Ibid*.
[351] n 349 above.
[352] Section 2 of the IK Act 6 of 2019.

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misuse and to promote understanding of the public's knowledge.[353] The more people know and understand indigenous knowledge and the rights attached to it, the more they will be able to apply the knowledge widely. The Act seeks to capacitate indigenous communities so that they can safeguard their knowledge.[354] The Act introduces the equitable sharing of benefits of exploring and using indigenous knowledge.[355]

Most importantly, the Act recognises the commercial viability of indigenous knowledge; it therefore seeks to promote trading in indigenous knowledge.[356] The commercialisation of indigenous knowledge should be for goods, services, and processes.[357] The Act also aims to address the registration of indigenous knowledge and the establishment of indigenous knowledge practitioners responsible for ensuring compliance with registration and protection measures.[358] Finally, the Act's objectives are to recognise indigenous knowledge as a prior art in meeting the requirements for safeguarding it in the IP framework.[359]

The National Indigenous Knowledge Systems Office (NIKSO) was established in Section 4 of the Act.[360] NIKSO is responsible for implementing the Act,[361] implementing rules on safeguarding and promoting indigenous knowledge,[362] addressing past injustices against indigenous people/communities,[363] facilitating the implementation of development measures,[364] managing the registration of indigenous knowledge practitioners,[365] using education and awareness to empower the public on the recognition of their rights in indigenous knowledge and using such knowledge for socio-economic development purposes,[366] and they are facilitating the issuing of licences for using indigenous knowledge.[367] NIKSO will also be responsible for

[353] Section 3(a) of the IK Act 6 of 2019.
[354] Section 3(c) of the IK Act 6 of 2019.
[355] Section 3(d) of the IK Act 6 of 2019.
[356] Section 3(e) of the IK Act 6 of 2019.
[357] *Ibid*.
[358] Section 3(g) of the IK Act 6 of 2019.
[359] Section 3(h) of the IK Act 6 of 2019.
[360] Section 4 of the IK Act 6 of 2019.
[361] Section 5(a) of the IK Act 6 of 2019.
[362] Section 5(b) of the IK Act 6 of 2019.
[363] Section 5(c) of the IK Act 6 of 2019.
[364] Section 5(d) of the IK Act 6 of 2019.
[365] Section 5(e) of the IK Act 6 of 2019.
[366] Section 5(f) of the IK Act 6 of 2019.
[367] Section 5(h) of the IK Act 6 of 2019.

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assisting indigenous people with negotiating and concluding access and equitable benefit-sharing agreements,[368] advising the authorities on other outstanding issues,[369] and helping indigenous people enter into a licence agreement.[370]

The registration of indigenous knowledge established in Chapter 6 of the Act requires the establishment of a registration office.[371] The register shall record the registered indigenous knowledge, whether the information can be disclosed to the public, and whether access and equitable benefit sharing and licensing agreements have been entered into.[372] South Africa has already taken a step towards implementing Section 6 of the Act by establishing the National Indigenous Knowledge Registration System and the National Indigenous Knowledge Management System.[373]

The Advisory Panel created will be responsible for providing expert reports to NIKSO about safeguarding indigenous knowledge;[374] gathering indigenous communities for activities about the development, use, and protection of indigenous knowledge;[375] and advising NIKSO on any other matter that arises regarding indigenous knowledge.[376]

For indigenous knowledge protection, the Act provides that indigenous knowledge is the subject matter to be protected.[377] Therefore, to be registered under this Act, knowledge must meet the requirements outlined in the definition of indigenous knowledge.[378] Arguably, this right is protected by the constitutional right to property, which provides that no person should be deprived of their property unless by the law of general application.[379] For example, Section 9 of the Act provides that indigenous knowledge is deemed property, as provided for in Section 25 of the Constitution.[380]

[368] Section 5(i) of the IK Act 6 of 2019.
[369] Section 5(j) of the IK Act 6 of 2019.
[370] Section 5(k) and (l) of the IK Act 6 of 2019.
[371] See Section 17 of the IK Act 6 of 2019.
[372] Section 19(2) of the IK Act 6 of 2019.
[373] See Science and Innovation, 'The National Indigenous Knowledge Systems Management System' <NIKSO Portal (dst.gov.za)> accessed 02 July 2024.
[374] Section 8(a) of the IK Act 6 of 2019.
[375] Section 8(b) of the IK Act 6 of 2019.
[376] Section 8(c) of the IK Act 6 of 2019.
[377] Section 9(1) of the IK Act 6 of 2019.
[378] See the definition in section 1 of the IK Act 6 of 2019.
[379] Section 25 of the Constitution.
[380] Section 9(2) of the IK Act.

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Compared to other legal frameworks, the IK Act provides actual knowledge protection.[381] Section 12 states that indigenous knowledge may be vested in the trustee of a specific community.[382] In this case, the trustee holds the rights over indigenous knowledge in the trust established for the indigenous people/community[383] and will be responsible for accountability to the indigenous people/community.[384] In cases where the author or inventor of indigenous knowledge cannot be identified or has renounced rights over such knowledge, NIKSO acts as a custodian and controls the rights through the trustee appointed.[385]

The rights that give rise to being an owner of indigenous knowledge include the right to get shares from the benefits accrued due to the use of such knowledge,[386] being acknowledged whenever the knowledge is being used outside the indigenous community's everyday operations,[387] and limiting any access to the knowledge.[388]

Chapter 7 of the Act focuses on the commercialisation of indigenous knowledge.[389] The commercialisation of indigenous knowledge needs to be monitored by NIKSO, and NIKSO must promote cooperation in partnerships and the development of a trade commodity.[390] NIKSO must also ensure that there is enough funding for commercialisation[391] and design measures to market the subject matter,[392] primarily through technology in developing products and services emanating from indigenous knowledge.[393] It further proves that the third party must have concluded a licensing agreement before accessing indigenous knowledge.[394]

The Act established a dispute-resolution mechanism as the rules alone – without an enforcement plan – are ineffective.[395] It provides that the Dispute Resolution

[381] Section 10 of the IK Act 6 of 2019.
[382] Section 12(1) of the IK Act 6 of 2019.
[383] Section 12(2)(a) of the IK Act 6 of 2019.
[384] Section 12(2)(b) of the IK Act 6 of 2019.
[385] Section 12(3) of the IK Act 6 of 2019.
[386] Section 13(1)(a) of the IK Act 6 of 2019.
[387] Section 13(1)(b) of the IK Act 6 of 2019.
[388] Section 13(1)(c) of the IK Act 6 of 2019.
[389] Chapter 7 of the IK Act 6 of 2019.
[390] Section 25(2)(a) of the IK Act 6 of 2019.
[391] Section 25(2)(b) of the IK Act 6 of 2019.
[392] Section 25(2)(c) of the IK Act 6 of 2019.
[393] Section 25(2)(d) of the IK Act 6 of 2019.
[394] See generally Section 26 of the IK Act 6 of 2019.
[395] See Section 27 of the IK Act 6 of 2019.

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Committee (DRC) is responsible for issuing warnings to infringers of indigenous knowledge, issuing notices prohibiting illegal access to indigenous knowledge,[396] and after consideration, then recommending to NIKSO the cancellation, suspension, and revocation of a licence already granted.[397] It provides further evidence that any third party who intentionally uses indigenous knowledge for commercial purposes without consent commits an offence and shall be convicted and sentenced to pay a fine as prescribed.[398]

The IK Act concludes by providing that even indigenous knowledge from another country or jurisdiction should be afforded the same level of protection.[399] In cases where indigenous knowledge originates from more than one jurisdiction, NIKSO assists the concerned states in agreeing on the equitable sharing of the benefits.[400] When there is more than one claimant, the revenue generated will be apportioned accordingly.[401] Where an agreement already exists but does not cover all of these instances, it must be amended to cover them.[402]

Contrary to the position taken by Geyer,[403] Zondi argues that the definition of the indigenous community needs to be clarified.[404] She submits that this definition needs to be more specific. However, she considers that the openness of the definition may also be seen as positive and that it would cover those otherwise not covered.[405] For example, the indigenous community comprises people who have chosen to modernise their living standards. She further argues that while there are positives in integrating indigenous knowledge into the IP regime, there will be clashes.[406]

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[396] Section 27(4)(b) of the IK Act 6 of 2019.
[397] Section 27(4)(c) of the IK Act 6 of 2019.
[398] Section 28 of the IK Act 6 of 2019.
[399] Section 29(1) of the IK Act 6 of 2019.
[400] Section 29(12) of the IK Act 6 of 2019.
[401] Section 30(1) of the IK Act 6 of 2019.
[402] Section 30(2) of the IK Act 6 of 2019.
[403] n 187 above.
[404] Nokwanda Bathabile Zondi, 'A dissection of the Protection, Promotion, Development and Management of indigenous Knowledge Systems Act 6 of 2019: substantive issues and foreseeable consequences for creative industries in South Africa' (LLM in Intellectual Property Law mini dissertation, University of Cape Town 2021) <content (uct.ac.za)> accessed 02 July 2024.
[405] Nokwanda Bathabile Zondi, 'A dissection of the Protection, Promotion, Development and Management of indigenous Knowledge Systems Act 6 of 2019: substantive issues and foreseeable consequences for creative industries in South Africa' 18-19.
[406] Nokwanda Bathabile Zondi, 'A dissection of the Protection, Promotion, Development and Management of indigenous Knowledge Systems Act 6 of 2019: substantive issues and foreseeable consequences for creative industries in South Africa' 19-20.

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Zondi argues that creating many institutions dealing with the same indigenous knowledge similarly may also cause problems.[407] Consequently, there is a need to establish an entity that oversees the management and safeguarding of indigenous knowledge.[408]

Another concern was the implementation of the IK Act.[409] Zondi argues that fines do not necessarily deter unlawful access to indigenous knowledge.[410] She argues that they do not offer redress.[411] Furthermore, the IK Act is territorial; even if these fines were effective, infringers outside South Africa may not be deterred.[412] In response, Zondi submits that civil suits should be introduced to discourage the infringers of indigenous rights.[413] Zondi suggests introducing customary ways of dealing with infringement to resolve the challenges related to expensive litigation fees.[414] For example, there are customary law courts.

Zondi submits that adequate safeguarding of indigenous knowledge should include indigenous communities in the decision-making processes.[415] Despite criticisms of the IK Act, Zondi argues that the Act is an opportunity to develop the indigenous community economically.[416]

From the above discussion, three main things are noted: the IK Act establishes the vesting of rights over indigenous knowledge to the indigenous community; these communities should be acknowledged as the origin of this knowledge; and they should

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[407] Nokwanda Bathabile Zondi, 'A dissection of the Protection, Promotion, Development and Management of indigenous Knowledge Systems Act 6 of 2019: substantive issues and foreseeable consequences for creative industries in South Africa' 20-21.
[408] Nokwanda Bathabile Zondi, 'A dissection of the Protection, Promotion, Development and Management of indigenous Knowledge Systems Act 6 of 2019: substantive issues and foreseeable consequences for creative industries in South Africa' 22.
[409] Nokwanda Bathabile Zondi, 'A dissection of the Protection, Promotion, Development and Management of indigenous Knowledge Systems Act 6 of 2019: substantive issues and foreseeable consequences for creative industries in South Africa' 23.
[410] *Ibid*.
[411] n 409 above.
[412] *Ibid*.
[413] n 409 above.
[414] Nokwanda Bathabile Zondi, 'A dissection of the Protection, Promotion, Development and Management of indigenous Knowledge Systems Act 6 of 2019: substantive issues and foreseeable consequences for creative industries in South Africa' 23-24.
[415] Nokwanda Bathabile Zondi, 'A dissection of the Protection, Promotion, Development and Management of indigenous Knowledge Systems Act 6 of 2019: substantive issues and foreseeable consequences for creative industries in South Africa' 24.
[416] Nokwanda Bathabile Zondi, 'A dissection of the Protection, Promotion, Development and Management of indigenous Knowledge Systems Act 6 of 2019: substantive issues and foreseeable consequences for creative industries in South Africa' 41.

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have the power to limit who should have access to the knowledge.[417] He reveals that the IK Act needs an appeal procedure in its dispute resolution mechanisms.[418]

Therefore, safeguarding indigenous knowledge in the context of the AfCFTA Agreement should accommodate the appeal procedure, recognise indigenous communities as holders of indigenous knowledge, and involve them in the decision-making process regarding access to their knowledge. This would allow the aggrieved indigenous community to appeal when its rights have been unfairly infringed. Ncube argues that the IK Act (then Bill) is an adequate *sui generis* regime for safeguarding indigenous knowledge.[419] As a result, the IPLAA, as indicated in the previous discussion, is implemented independently.

In conclusion, Ncube argues that the IK Act is adequate because it provides for the following: a *sui generis* system; accessibility; it is in line with the international and the regional framework; it addresses cross-border issues associated with indigenous knowledge, communal ownership, ABS, and FPIC; dispute-resolution mechanisms; and penalties for infringing indigenous rights.[420]

5.5. Concluding highlights on the Biodiversity Act and Regulations

The Biodiversity Act, 2008, BABS Regulations, and 2015 Amendment Regulations provide comprehensive regulations for facilitating ABS agreement. They emphasise the importance of including indigenous people in negotiating and prioritising their rights. They are an opportunity to benefit indigenous communities from the benefits generated by commercialising indigenous knowledge. This is because if ABS agreement and FPIC are concluded based on the terms of indigenous communities, they are likely to include terms on how they will benefit from such agreements.

Furthermore, this section argues that the South African *sui generis* protection of indigenous knowledge, as evidenced in the IK Act, also holds promise to guide the

[417] Nokwanda Bathabile Zondi, 'A dissection of the Protection, Promotion, Development and Management of indigenous Knowledge Systems Act 6 of 2019: substantive issues and foreseeable consequences for creative industries in South Africa' 932.
[418] *Ibid*.
[419] Caroline Ncube 'Sui generis legislation for the protection of traditional knowledge in South Africa: An opportunity lost' in Elmien du Plessis and Caroline Ncube (Eds), *Indigenous knowledge& Intellectual Property* (Juta 2016) 29.
[420] See generally, n 422 above.

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development of measures to safeguard indigenous knowledge in the context of the AfCFTA Agreement. The IK Act includes various provisions, ranging from the definition of subject matter and indigenous knowledge to the establishment of NIKSO and an Advisory Committee responsible for the enforcement of the Act, to a licensing and access and benefit-sharing agreement, dispute-resolution mechanisms, and the imposition of fines where there is an infringement.

The following section explores South African case studies on access to indigenous knowledge and experiences at the intersection between indigenous knowledge and intellectual property.

5.6. South African indigenous knowledge systems: Selected case studies

5.6.1. Background

For years, indigenous people have used indigenous knowledge related to animals and plants, which has had a significant impact on the lives of local people.[421] As indigenous knowledge in South Africa is mainly embedded in biodiversity,[422] this section explores South African case studies in which various stakeholders have attempted to regulate access to indigenous knowledge and the associated resources. This section examines the impact of South African intellectual property systems on protecting selected indigenous resources. It focuses on the case studies of rooibos, *Hoodia gordonii*, and the Kukula healers.

5.6.2. Rooibos: Khoisan ABS

Aspalathus linearis, popularly known as rooibos, is an endemic plant[423] subjected to illegal expropriation for years, which has led to the development of frameworks to safeguard it for sustainable development.[424] Developing a benefit-sharing agreement for access, expropriation, and commercialisation of resources is of interest. Although

[421] See Rachel Wynberg, South Africa's bioprospecting, access, and benefit-sharing regulatory framework: Guidelines for providers, users and regulators (Department of Environmental Affairs 2012).
[422] *Ibid*.
[423] Endemic to the Southwestern part of South Africa. See Desmond Oriakhogba, 'Reflections on the San and Khoi Rooibos benefit-sharing Agreement' (2019) 6 Benin Journal of Public Law 356 <(3) (PDF) REFLECTIONS ON THE SAN AND KHOI ROOIBOS BENEFIT- SHARING AGREEMENT (researchgate.net)> accessed 11 June 2024.
[424] Desmond Oriakhogba, 'Reflections on the San and Khoi Rooibos benefit-sharing Agreement' 356.

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there is little literature or records on rooibos, Van Wyk submits that the Khoi and San people were the first to use this plant as a beverage.[425] The first use of this indigenous plant was confirmed using DEA.[426]

Although rooibos is a well-known plant initially used by the Khoi and San people in southern Africa, a trademark was registered as rooibos at the United States Patent and Trademark Office (USPTO).[427] Theron, who noticed the effect of the plant on her baby in the 1960s, sought and registered a trademark over rooibos-based products and then sold the trademark to Burke International 39 years later.[428] Burke International subsequently ordered South African and other American companies to pay royalties for their use of rooibos or to stop using the name. An objection was raised that the term rooibos was/is an Afrikaans generic work referring to red bush.[429]

The enactment of the Biodiversity Act and the BABS Regulations discussed in the previous section paved the way for negotiations between the Khoi and San people and the rooibos industry.[430] In the process, the Khoikhoi community developed the Community Protocol and Research Ethics (Rooibos Community Protocol),[431] which would guide negotiations between the Khoikhoi and other interested parties in anticipation of establishing an ABS agreement.

[425] Ben Erik van Wyk 'A review of Khoi-San and Cape Dutch medical ethnobotany' (2008) 119(3) Journal of Ethnopharmacology 331 <A review of Khoi-San and Cape Dutch medical ethnobotany - ScienceDirect> accessed 11 June 2024.
[426] Department of Environmental Affairs, 'Traditional Knowledge Associated with Rooibos and honeybush Species in South Africa' (2014) <Final Report on TK Study_ April 2015 (naturaljustice.org)> accessed 03 July 2024.
[427] Camille Meyer and Kiruben Naicker, 'Collective intellectual property of indigenous peoples and local communities: Exploring power asymmetries in the rooibos geographical indication and industry-wide benefit-sharing agreement' (2023) 52(9) Research Policy 1 <Collective intellectual property of Indigenous peoples and local communities: Exploring power asymmetries in the rooibos geographical indication and industry-wide benefit-sharing agreement (sciencedirectassets.com)> accessed 11 June 2024.
[428] World Intellectual Property Organization, 'Disputing a name, developing a geographical indication. Case studies' (2018) <Disputing a Name, Developing a Geographical Indication (wipo.int)> accessed 11 June 2024.
[429] Cerkia Bramley et al, 'An economic analysis of the evolution in intellectual property strategies in the South African agricultural sector: the Rooibos industry' in World Intellectual Property Organisation, *The Economics of Intellectual Property in South Africa* (World Intellectual Property Organisation 2009) 56.
[430] Desmond Oriakhogba, 'Reflections on the San and Khoi Rooibos benefit-sharing Agreement' 358-359.
[431] National Khoisan Council and Cederberg Belt Indigenous Farmers Representatives, 'The Khoikhoi Peoples' Rooibos Biocultural Community Protocol' (2019) <NJ-Rooibos-BCP-Web.pdf (naturaljustice.org)> accessed 11 June 2024.

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Community protocols are a collection of expressions, rules, practices, and articulations developed by communities to set out their desired engagement with external stakeholders.[432] Customary norms and national and international laws inform these expressions, rules, practices, and articulations.[433] Communities are in an excellent position to determine what best benefits them. Therefore, community protocols are a good source of information on how indigenous knowledge and the associated resources can be safeguarded.

The Rooibos Community Protocol outlines how the Khoikhoi people facilitated FPIC and ABS commercialisation and navigated through IP and ethical issues. The Khoikhoi people have elected to use a record system, the South African National Recordal System, where information about their indigenous knowledge and associated resources is stored.[434] The Khoikhoi people exercise their rights, as pronounced in *Shilubana and Others v Nwamitwa*.[435] This case concerns an appeal where the court had to determine whether traditional leaders could develop common law principles to promote equality.

In this case, the court held that customary law is a recognised source of law that can be used to develop the law.[436] It should be noted that the interpretation of this customary law must be in accordance with the Constitution.[437] In this case, the exercise of communal rights over rooibos as a collective right that their ancestors customarily exercised[438] must be in line with the Constitution. Arguably, this right is related to the exercise of culture[439] and property.[440] Therefore, an endeavour to safeguard indigenous knowledge must promote the constitutional rights of indigenous communities.

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[432] National Khoisan Council and Cederberg Belt Indigenous Farmers Representatives, 'The Khoikhoi Peoples' Rooibos Biocultural Community Protocol' 2.
[433] *Ibid*.
[434] National Khoisan Council and Cederberg Belt Indigenous Farmers Representatives, 'The Khoikhoi Peoples' Rooibos Biocultural Community Protocol' 18.
[435] *Shilubana and Others* paras 48, and 74-75.
[436] *Ibid.*
[437] Section 2 of the Constitution.
[438] National Khoisan Council and Cederberg Belt Indigenous Farmers Representatives, 'The Khoikhoi Peoples' Rooibos Biocultural Community Protocol' 70.
[439] See sections 30 and 31 of the Constitution.
[440] See section 25 of the Constitution.

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Drawing inferences from international law,[441] the Rooibos Community Protocol provides that parties to negotiations for accessing indigenous knowledge and the associated resources must ensure that an ABS agreement is fair and equitable.[442] Furthermore, the Protocol draws inferences from an IP framework.[443] In terms of the latter, the following principles should be applied when safeguarding the IP aspects of indigenous knowledge: recognition and promotion of human creativity and innovation based on indigenous knowledge and associated resources; consideration of a policy framework and characteristics of other frameworks for specific indigenous knowledge and the related resources; promotion of participation of indigenous communities in the decision-making processes of the negotiations; and categorisation of indigenous knowledge and associated resources in terms of use, purpose (commercial, non-commercial) or ordinary customary use.[444]

To effectively implement FPIC, the Rooibos Community Protocol states that consent must be provided without any force applied or manipulation.[445] This consent must be obtained before accessing and using indigenous knowledge and associated resources, whether the community requires it or not. This is the standard procedure.[446] Furthermore, an FPIC agreement must detail the project resources, associated knowledge, and risks.[447] For benefit sharing, the monies are collected, received in the established fund, and distributed equally between indigenous communities and bioprospectors.[448]

The South African Rooibos Council was established in 2005 to safeguard and enforce laws on collective indigenous IPR.[449] In collaboration with the international research programme for GI, the Council has developed a model to use GI to safeguard

[441] See no.5.2 of the Rooibos Community Protocol.
[442] National Khoisan Council and Cederberg Belt Indigenous Farmers Representatives, 'The Khoikhoi Peoples' Rooibos Biocultural Community Protocol' 73-76.
[443] See no.5.4 of the Rooibos Community Protocol.
[444] See no 5.4. of the Rooibos Community Protocol.
[445] See no. 5.5. of the Rooibos Community Protocol.
[446] *Ibid*.
[447] See no. 5.5.1, 5.5.2, and 5.5.3 of the Rooibos Community Protocol.
[448] See no. 6 5.5. of the Rooibos Community Protocol.
[449] Estelle Bienabe and Delphine Marie-Vivien, 'Institutionalizing geographical indications in southern countries: lessons learned from Basmati and Rooibos' (2017) 98 World Development 58.

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rooibos.[450] Because of the lack of a GI framework in South Africa at the time,[451] the Council relied on European regulations on GI.[452] Industry actors agreed on the need to defend their produce to address potential threats of quality degradation and, therefore, loss of reputation at the industry level.

Tronskie and Bienabe posit that since rooibos is exported to many countries, its origin must be protected to prevent the external markets from using it as their own.[453] Therefore, GI served as a quality control and management initiative.[454] Locally, the use of GI to safeguard rooibos is relevant, as the plant forms part of the cultural identity of coloured and white farmers who invented the process of growing the plant;[455] therefore, there is a connection between the farmers.[456]

GI in rooibos is used to identify the geographical area where the plant is found and the indigenous knowledge used to develop it to its full potential.[457] Therefore, GI is similar to other GIs that benefit industry players involved in the production and trade of GI-certified products, with the development of GI as a protection and marketing tool for accessing markets. This collective intellectual property system recognises rooibos-related traditional knowledge collectively owned by the entire industry.

Finally, an ABS agreement was entered into between the Khoikhoi community and bioprospectors.[458] This discussion expands on how the Rooibos Benefit Sharing Agreement (RABSA) was negotiated and entered into, the agreement's contents, and

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[450] Cerkia Bramley et al, 'An economic analysis of the evolution in intellectual property strategies in the South African agricultural sector: the Rooibos industry' 59.
[451] Cerkia Bramley et al, 'An economic analysis of the evolution in intellectual property strategies in the South African agricultural sector: the Rooibos industry' 60.
[452] *Ibid* note 454.
[453] Dirk Troskie and Estelle Bi´enabe, 'Institution building and local industry dynamics: lessons from the rooibos GI initiative' in Cerkia Bramley et al (Eds.), *Developing Geographical Indications in the South — The Southern African Experience* (Springer 2013) 123.
[454] *Ibid*.
[455] Sarah Ives, *Steeped in Heritage: The Racial Politics of South African Rooibos Tea* (Duke University Press 2017).
[456] *Ibid*.
[457] Delphine Marie-Vivien and Estelle Bienabe, 'The Multifaceted Role of the State in the Protection of Geographical Indications: A Worldwide Review' (2017) 98 World Development 1 <The Multifaceted Role of the State in the Protection of Geographical Indications: A Worldwide Review - ScienceDirect> accessed 11 June 2024.
[458] The RABSA was launched in November 2019. See Doris Schroeder et al, 'The Rooibos Benefit Sharing Agreement–Breaking New Ground with Respect, Honesty, Fairness, and Care' (2020) 29 Cambridge Quarterly of Healthcare Ethics 285 <The Rooibos Benefit Sharing Agreement–Breaking New Ground with Respect, Honesty, Fairness, and Care | Cambridge Quarterly of Healthcare Ethics | Cambridge Core> accessed 11 June 2024.

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how the Rooibos Community Protocol affected this agreement. It concludes by hinting at the policy considerations this agreement may have for safeguarding indigenous knowledge and associated resources in the context of the AfCFTA Agreement.

Schroeder *et al*. argue that the Convention on Biological Diversity (CBD) is the basis for the rights of indigenous and local communities over their resources and associated knowledge.[459] They submit that ABS agreement in South Africa is regulated by contract law in consideration of the Biodiversity Act.[460] For this, the responsible ministry has to supervise negotiations with the indigenous communities as knowledge holders.[461] Bioprospectors have to pay 1.5 per cent of the value of unprocessed resources.[462]

In addition to the monetary and non-monetary benefits, the RABSA suggests the following benefits: employment, scholarship, and development initiatives.[463] The levies paid to the community must be equally shared.[464] While the RABSA aims to economically develop local and indigenous communities, it also considers sustainability by ensuring that bioprospectors and indigenous communities effectively use tangible resources.[465]

While it was concluded with no precedent, policymakers for the AfCFTA may look at this agreement to develop measures to safeguard indigenous knowledge. The basis on which the agreement was established is that the Khoikhoi have the rights over their indigenous knowledge and rooibos associated with the knowledge. In so doing, the negotiators considered the best interests of the indigenous inhabitants of southwestern South Africa, where rooibos is found, by promoting the full participation

[459] Doris Schroeder et al, 'The Rooibos Benefit Sharing Agreement–Breaking New Ground with Respect, Honesty, Fairness, and Care' 288.
[460] Doris Schroeder et al, 'The Rooibos Benefit Sharing Agreement–Breaking New Ground with Respect, Honesty, Fairness, and Care' 291.
[461] Doris Schroeder et al, 'The Rooibos Benefit Sharing Agreement–Breaking New Ground with Respect, Honesty, Fairness, and Care' 292.
[462] *Ibid*.
[463] Doris Schroeder et al, 'The Rooibos Benefit Sharing Agreement–Breaking New Ground with Respect, Honesty, Fairness, and Care' 293.
[464] *Ibid*.
[465] The Rooibos Benefit Sharing Agreement (RBSA) 2019. Only available to parties to the agreement. See Doris Schroeder et al, 'The Rooibos Benefit Sharing Agreement–Breaking New Ground with Respect, Honesty, Fairness, and Care' 294.

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of indigenous communities and achieving the principles of honesty, fairness, justice, and respect.

5.6.3. *Hoodia Gordonii*

Another relevant case study for implementing ABS agreement concerns the bioprospecting of *Hoodia Gordonii*, indigenous to southern Africa.[466] This species is used to suppress hunger and thirst. In 1995, the Council for Scientific and Industrial Research (CSIR) patented the substance of the plant without the consent of the indigenous San people, who had used the plant for hundreds of years in South Africa and Namibia. Many developments followed, and patents were even granted in the United Kingdom for the same plant.[467] *Hoodia Gordonii* is prospected for commercialisation in two forms: an extract used in food production and as a raw material used in herbal substances. This means that there are distinct industries interested in this plant.

ABS procedures for the two forms vary but share some similarities. First, the CSIR had to consult relevant government departments, such as the Northern Cape Directorate of Nature Conservation and Environmental Affairs and Tourism (DEAT). Second, the CSIR had to consult with holders of indigenous knowledge. Councils such as the South African San Council (SASC) and Natural Justice, NGOs such as the Southern African Hoodia Growers Association (SAHGA), and working groups such as the Working Group of Indigenous Minorities in Southern Africa were established to represent the interests of the San people. These negotiations included cross-border parties, as the plant was originally from Namibia.[468]

These Councils and the NGOs contributed to safeguarding indigenous knowledge in various ways. For example, they had to advance the interests of indigenous communities, which led to the recognition of indigenous communities as the holders of indigenous knowledge rights, recognition of IP in indigenous knowledge, and cross-

[466] See Rachel Wynberg, 'Access and Benefit-Sharing Agreements in the Commercial Development of *Hodia*' in Secretariat of the Convention on Biological Diversity, *Access and Benefit-Sharing in practice: Trends In Partnerships Across Sectors* (CBD Technical Series No. 38 2008) 83 <https://www.cbd.int/doc/publications/cbd-ts-38-en.pdf> accessed 12 June 2024.
[467] *Ibid*.
[468] Wynberg (2008) 84-86.

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border safeguarding of indigenous knowledge.[469] This would be by submitting arguments substantiating why indigenous communities should be vested with rights over indigenous knowledge and why IPR should be attached to indigenous knowledge.

The negotiations established a memorandum of understanding (MOU), where the CSIR and SASC agreed on various issues.[470] Mainly, the MOU indicated that the parties agreed that the San people are the owners of indigenous knowledge, innovations, and practices relating to the *Hoodia Gordonii* plant and its use, that there will be a benefit-sharing between the concerned stakeholders, that the San people accept the already registered patents by the CSIR and that IP emanating from a specific patent shall vest in the CSIR; and that the CSIR may *bona fide* agree with other stakeholders on the use of *Hoodia Gordonii*.[471]

Finally, negotiations led to a CSIR–San benefit-sharing agreement.[472] The San would receive six per cent of royalties from the revenue generated by the CSIR[473] for as long as the CSIR received revenue for using *Hoodia Gordonii*.[474] Furthermore, these monies would be paid to an established trust fund catering to the San people's socio-economic needs.[475] Because of the circulation of monies, there ought to be an accounting system to ensure transparency.

The Trust established would include the CSIR and San representatives. Section 3(6) of the Benefit-Sharing Agreement between the CSIR and the South African San Council provides that the Trust Board would only allow the distribution of funds to relevant stakeholders provided that they met specific requirements, including adherence to requirements established to ensure sustainable plant usage.[476]

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[469] *Ibid*.
[470] Wynberg (2008) 86.
[471] Wynberg (2008) 86-87.
[472] Benefit-sharing Agreement between the CSIR and the South African San Council, March 2003.
[473] Figure 1 of the Benefit-sharing Agreement between the CSIR and the South African San Council, March 2003.
[474] See sections 1(5) and 2 of the Benefit-sharing Agreement between the CSIR and the South African San Council, March 2003.
[475] Deed of Trust of the San *Hodia* Benefit-Sharing Trust. See figure 1 of the Benefit-sharing Agreement between the CSIR and the South African San Council, March 2003.
[476] See sections 3(6) of the Benefit-sharing Agreement between the CSIR and the South African San Council, March 2003.

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Regarding implementing FPIC in the case of *Hoodia Gordonii*, Schroeder[477] submits that the following requirements must be met: the capacity to contract, full information disclosure, adequate understanding of the information, and free will.[478] Most importantly, however, there must be a comprehension of the information to which the parties agree. For this, indigenous people are at risk of deciding to do things they do not understand owing to technical and terminology issues. Therefore, measures must be implemented to ensure indigenous people know what they consent to.

In a study by Vermeylen on the commercialisation of *Hoodia Gordonii*,[479] it was concluded that while the indigenous San people have distinct perspectives, an ABS agreement for *Hoodia Gordonii* must cover/depict compensatory, redistributive, procedural, and proprietary justice.[480] Mullen and Okimoto[481] defined compensatory justice as compensation that is meant to cure past transgressions.[482] An ABS agreement for indigenous knowledge should consider the past injustices to which indigenous knowledge holders have been subjected.

Redistributive justice seeks to achieve the interests of society.[483] For this, an ABS agreement must ensure the great benefits and satisfaction of the indigenous communities. This can be achieved by accommodating the interests of indigenous people, as suggested during the negotiations. Procedural justice concerns how matters are handled.[484] This way, how external stakeholders negotiate an ABS agreement with indigenous people/communities must be fair to all parties. This means there must be transparency and rationality in the procedure to reach an agreement.

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[477] Dorris Schroeder, 'Informed consent: From medical research to traditional knowledge' in Rachel Wynberg et al, Indigenous peoples, consent, and benefit sharing: Lessonsfrom the San-*Hodia* case (Springer 2009) 27 <ProQuest Ebook Central - Reader> accessed 12 June 2024.
[478] Dorris Schroeder (20009) 29.
[479] Saskia Vermeylen, 'Trading traditional knowledge: San perspectives from South Africa, Namibia and Botswana' in Rachel Wynberg et al, Indigenous peoples, consent, and benefit sharing: Lessonsfrom the San-*Hodia* case (Springer 2009) 193 <ProQuest Ebook Central - Reader> accessed 12 June 2024.
[480] Saskia Vermeylen (2009) 206.
[481] Elizabeth Mullen and Tyler Okimoto, 'Compensatory justice' in S Russel et al, The Oxford handbook of justice in workplace (Oxford 2014) 477 < Compensatory Justice | The Oxford Handbook of Justice in the Workplace | Oxford Academic (oup.com)> accessed 12 June 2024.
[482] *Ibid*.
[483] Lucy Allais, 'Restorative Justice, Retributive Justice, and the South African Truth and Reconciliation Commission' (2012) 39(4) Philosophy & Public Affairs 331 <(4) Retributive Justice, Restorative Justice, and the South African Truth and Reconciliation Commission | Lucy Allais - Academia.edu> accessed 12 June 2024.
[484] Tom Tyler, 'Procedural Justice and the Courts' Centre for Court Innovation <CR 36-3 (innovatingjustice.org)> accessed 12 June 2024.

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Lastly, an ABS agreement must recognise indigenous people as holders of rights over indigenous knowledge, innovations, practices, and associated resources.

The CSIR–San benefit-sharing agreement case depicts a positive approach towards safeguarding indigenous knowledge and associated resources for the benefit of the indigenous San people.[485] While implementation challenges may be raised, South Africa has made progress in ensuring that agreements such as these are implemented adequately. This was done by passing ABS legislation/regulations,[486] as previously discussed.

5.6.4. Kukula health practitioners

The Bushbuckridge Community Protocol (BCP)[487] was developed by Bushbuckridge traditional health practitioners in Mpumalanga, to address the over-prospecting of biological medicinal resources. Developed through the participation of the Kukula Traditional Health Practitioners Association of Bushbuckridge, the BCP seeks to promote peace, collaboration, and knowledge sharing between community members to promote the area's sustainable development by safeguarding indigenous knowledge and associated biological resources.[488]

The Kukula Traditional Health Practitioners Association of Bushbuckridge believes that access to and the use of biological medicinal resources is guided by spiritual values and customs, which foster sustainability.[489] For example, access to tangible resources is permissible during specific periods of the year only to ensure sustainability.[490] Knowledge about sustainable conservation is then passed on from

[485] Rachel Wynberg, 'Policies for sharing benefits from *Hodia*' in Rachel Wynberg et al, Indigenous peoples, consent, and benefit sharing: Lessonsfrom the San-*Hodia* case (Springer 2009) 127 <ProQuest Ebook Central - Reader> accessed 12 June 2024. See also DO Oriakhogba, CI Okorie and LS Lavhengwa, 'South African dagga: piping on the related intellectual property rights and indigenous knowledge systems' (2024). Forth coming in International Journal of Intellectual Property Management <https://www.inderscience.com/info/ingeneral/forthcoming.php?jcode=ijipm> accessed 12 June 2024.
[486] Rachel Wynberg (2009) 139.
[487] Kukula Traditional Health Practitioners Association of Bushbuckridge, 'Biocultural Protocol of The Traditional Health Practitioners of Bushbuckridge' (2010) <Microsoft Word - Biocultural Protocol - final BCP in 3 languages - low res (community-protocols.org)> accessed 12 June 2024.
[488] Rodney Sibiye et al, 'The Bushbuckridge BCP: Traditional health practitioners organize for ABS in South Africa' (2012) 65 Participatory Learning and Action 103 < The Bushbuckridge BCP: traditional health practitioners organise for ABS in South Africa (PLA 65) | IIED Publications Library> accessed 13 June 2024.
[489] BCP, 2010.
[490] *Ibid*.

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generation to generation.[491] The BCP provides that the payment for accessing indigenous knowledge and associated resources depends on the amount of knowledge and resources accessed or sought to be accessed.[492]

An ABS agreement must indicate the identity of a third party and what they seek to do with indigenous knowledge and associated resources. For indigenous knowledge and the related resources used for medicinal purposes, the members of the BCP raise the threats of arrests they receive should things go wrong after using these resources, unlike in the case of Western medicine.[493] Therefore, the BCP indirectly calls for equal treatment of the industry, as occurs with other sectors.

Regarding knowledge sharing, members of the BCP agreed that they relied on customary laws, where they were bound to practise reciprocity. Through this, they must respect their ancestors and consider other community members before sharing information.[494] They vow to respect the domestic laws concerned with managing biological resources and associated knowledge, such as the Biodiversity Act and the BABS Regulations.[495] Furthermore, the FPIC must be implemented depending on various factors, such as the user, purpose, period, and the benefits they stand to gain.[496]

Legal trust is another method of safeguarding indigenous medicinal knowledge and associated resources.[497] To achieve the common goal of the Kukula indigenous community, Cocchiaro suggests that there be an agreement safeguarding indigenous knowledge and the associated resources used for medicinal purposes, and there must be clear definitions of boundaries and rules regulating how the biological resources and associated indigenous knowledge are to be accessed, the flexibility of rules,

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[491] n 489 above.
[492] *Ibid*.
[493] n 489 above.
[494] *Ibid*.
[495] n 489 above.
[496] *Ibid*.
[497] See Gino Cocchiaro et al, 'Consideration of a Legal "Trust" Model for the Kukula Healers' TK Commons in South Africa' in Jeremy de Beer et al, Innovation & Intellectual Property Collaborative Dynamics in Africa (UCT Press 2014) 151 <Innovation & Intellectual Property (openair.africa)> accessed 13 June 2024.

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respect of community rules, creating a dispute resolution and discipline board, introducing sanctions and penalties, and establishing a regulatory body.[498]

Parties to such agreements must respect customary law and community protocols for managing indigenous knowledge.[499] As suggested by Cocchiaro, legal trust is defined by the Trust Property Control Act[500] as an arrangement where a person is vested with ownership over a property that belongs to another so that the person (trustee) can administer it for the benefit of the person who granted such ownership rights.[501] This trust would enable Kukula practitioners to control their indigenous knowledge and associated resources, ABS, and impose other rules to safeguard indigenous knowledge and related resources against unlawful access.[502]

Furthermore, Cocchairo argues that trust would be beneficial in addressing the difficulties that come with the need to identify a legitimate indigenous community leader who will receive monies that are due to a particular indigenous community.[503] The trust would also accommodate access, benefit sharing, and the FPIC principles.[504] The trust would also be beneficial for minimising the issuance of permits by multiple indigenous community members to various parties.[505] The following vital issues appear in legal trust: trustee, subject matter, creator, and beneficiaries.[506]

Therefore, legal trust must be established to determine who will manage the affairs of a specific indigenous community. Trust must also identify the subject matter that forms the property of the trust. The indigenous community would be the creator of the community, with all members of a particular indigenous community qualifying to benefit from the revenue generated by the access, use, and commercialisation of indigenous knowledge and associated resources.[507]

[498] Gino Cocchiaro (2014) 154.
[499] Gino Cocchiaro (2014) 155.
[500] 57 of 1988.
[501] Section 1 of the Trust Property Control Act 57 of 1988.
[502] Gino Cocchiaro (2014) 162.
[503] *Ibid*.
[504] n 502 above.
[505] *Ibid*.
[506] Gino Cocchiaro (2014) 163.
[507] See Cocchiaro (2014) 164-168.

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5.6.5. Preliminary remarks

Various case studies in which South African legal frameworks have enabled the safeguarding of indigenous knowledge were explored. These relate to rooibos, *Hoodia gorgonii*, and the Kukula health practitioners. From this discussion, the key points are: full participation is required of indigenous people/communities in the decision-making processes concerning their indigenous knowledge; recognition of customary rules on safeguarding indigenous knowledge; the use of FPIC; the organisation and galvanisation of indigenous peoples for the protection and commercialisation of IK by NGOs and Councils; cross-border protection; and registration and recording of indigenous knowledge.

The above vital points may help develop rules for safeguarding indigenous knowledge in the context of the AfCFTA Agreement. The next chapter contextualises these and indicates how regulations related to these critical points should be structured in the context of the AfCFTA.

5.7. Conclusion

This chapter examined South African policies and legal frameworks for indigenous knowledge preservation. It first explored IKS Policy frameworks and, second, IP frameworks for integrating indigenous knowledge into the IP regime. Third, the chapter examined the ABS framework and the *sui generis* regime on safeguarding indigenous knowledge. The chapter concluded by exploring case studies on how South Africa accommodated and practically safeguarded indigenous knowledge. From this discussion, the chapter identifies critical measures that would help develop measures to protect indigenous knowledge in the context of the AfCFTA Agreement. These measures can be categorised into policy and legal, institutional, and administrative mechanisms.

In addition to measures distilled in chapter four, measures distilled in this chapter are to be harmonised in chapter six of this study. This is to form a harmonised approach to protecting indigenous knowledge within the context of the AfCFTA Agreement.

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CHAPTER SIX

CONSIDERATIONS FOR COMPREHENSIVE SAFEGUARDS FOR INDIGENOUS KNOWLEDGE IN THE AGREEMENT ESTABLISHING THE AFRICAN CONTINENTAL FREE TRADE AREA

6.1. Introduction

Chapters four and five explore the international, regional (African), and national (South African) frameworks on indigenous knowledge and the associated resources. This chapter sets out and discusses the guidelines distilled in chapters four and five. It comprehensively establishes a set of guidelines to inform policy considerations for an Annex on indigenous knowledge and the associated resources to Protocol (IP Protocol) to the Agreement Establishing the African Continental Free Trade Area on Intellectual Property Rights (AfCFTA Agreement).[1] The IP Protocol provides that member states are to negotiate annexes to the Protocol, including annexes on indigenous knowledge, traditional cultural expression, and genetic resources.[2]

This chapter, therefore, contextualises these vital guidelines, and explains how they can be used to foster an effective regime for indigenous knowledge protection in the context of the IP Protocol. Lastly, the chapter proposes a structure for the Annex to the IP Protocol. The approach adopted by this chapter fosters the protection of the rights and interests of indigenous communities in indigenous knowledge and associated resources while aiming to contribute to the sustainable economic development of these communities. This, therefore, achieves the economic development objectives of the AfCFTA Agreement and its IP Protocol.

6.2. Intellectual Property Framework

6.2.1. Introduction

Indigenous knowledge, which comprises various components, including practices, innovations and expressions developed by indigenous people in their respective communities, holds promise for African socio-economic development. This is evident

[1] Article 42.1(h) of the IP Protocol. See also articles 18(10), 19(9) and 20(9) of the IP Protocol provides that member states are to negotiate annexes to the Protocol, and these will include Annexes on indigenous knowledge, traditional cultural expression and genetic resources.
[2] Article 42.1(h) of the IP Protocol. See also articles 18(10), 19(9) and 20(9) of the IP Protocol

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in various industries such as agriculture, health, cultural expression, and artistic work. It has been outlined throughout previous chapters that conventional IP systems need to adequately safeguard this knowledge as they advance the interests of big corporations and Western bio prospectors.[3] The IP Protocol is a game-changer, as it introduced indigenous knowledge and associated resource protection.[4] The protection of indigenous knowledge under conventional IP can be achieved through the following IPR – patents, copyrights, trademarks, plant breeder's rights, designs, and GI.

6.2.2. Patents

There are two approaches to protecting indigenous knowledge through patents recognised by the WIPO: defensive or positive.[5] The decision to use either of the two depends on the needs of each country.[6] A positive approach enables the communities to exercise their rights over their property to benefit from the commercial proceeds of such property. This may be achieved by using the current IP regime.[7] On the other hand, a defensive approach prevents third parties from obtaining and exercising otherwise wrongly obtained IPR over indigenous knowledge.[8] Defensive protection does not function automatically, as it needs tailor-made rules.[9]

Although a combination of positive and defensive approaches would benefit the indigenous communities, this study argues that integrating indigenous knowledge into the patent systems should take the form of a defensive strategy, as discussed below. This study draws from the recently adopted WIPO treaty and the South African patent framework. It indicates how various defensive mechanisms, such as databases and prior art disclosures, may buttress the safeguarding of indigenous knowledge in the context of the IP Protocol.

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[3] See specifically, chapter two above.
[4] See articles 18, 19 and 20 of the IP Protocol.
[5] Rohaini and Nenny Dwi Ariani, 'Positive Protection: Protecting Genetic Resources Related to Traditional Knowledge in Indonesia' (2017) 11(2) FIAT JUSTISIA 123 <Positive_Protection_Protecting_Genetic_Resources_R.pdf> accessed 18 August 2024.
[6] Rohaini and Nenny Dwi Ariani, 'Positive Protection: Protecting Genetic Resources Related to Traditional Knowledge in Indonesia' 127.
[7] WIPO, 'Traditional Knowledge and Intellectual Property' (2023) Background Brief No. 1 <https://www.wipo.int/edocs/pubdocs/en/wipo-pub-rn2023-5-1-en-traditional-knowledge-and-intellectual-property.pdf> accessed 19 August 2024.
[8] *Ibid*.
[9] n 7 above.

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The defensive approach taken by the WIPO is evident in the WIPO Treaty on Intellectual Property, Genetic Resources, and Associated Traditional Knowledge, 2024, and in the South African Patent Amendment Act.[10] It is a defensive approach that seeks to prevent unauthorised, unethical, and unfair access to and use of indigenous knowledge and the associated resources by external parties.

6.2.2.1. Disclosure requirements and access and benefit sharing

As discussed in Chapter two above, the WIPO Treaty strengthens the patent system while ensuring adequate safeguarding of indigenous knowledge and associated resources by requiring the disclosure of origin in patent applications.[11] The Treaty seeks to strengthen the patent system to safeguard genetic resources and indigenous knowledge.[12] Requiring the applicant to indicate the country from which they sourced tangible indigenous knowledge or an indigenous source will ensure that the relevant body grants only legitimate patents.[13]

This study argues that one commendable provision of the Treaty is Article 5(1) and (2), which states that member states may impose measures they deem fit in cases of fraud and misrepresentation.[14] Similarly, in the South African legal context, the Patent Amendment Act requires that patent applicants indicate, where applicable, that their inventions are built/based on indigenous knowledge and associated resources.[15] Building on ABS and prior art disclosure requirements, disclosure requirements in this context foster the need to acknowledge indigenous communities and fairly compensate them for using their knowledge and associated resources.

Viewed from the biopiracy theoretical perspective, disclosure requirements prevent the misappropriation of indigenous knowledge and associated resources while ensuring that the appropriate indigenous knowledge rights holders are fairly and relatively compensated where it is accessed. Arguably, this requirement ensures

[10] 20 of 2005.
[11] See discussion in 4.3.1 under chapter two above.
[12] Article 1 of the World Intellectual Property Organisation Treaty on Intellectual Property, Genetic Resources and Associated Traditional Knowledge.
[13] See articles 3(1) and 3(2) of the World Intellectual Property Organisation Treaty on Intellectual Property, Genetic Resources and Associated Traditional Knowledge.
[14] Article 5(1) and (2) of the World Intellectual Property Organisation Treaty on Intellectual Property, Genetic Resources and Associated Traditional Knowledge.
[15] Section 3A of the Patents Amendment Act 20 of 2005.

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transparency and accountability, as patent examiners would diligently verify whether a patent applied for is legitimate.

6.2.2.2. Information systems databases

In addition, documentation of indigenous knowledge is another form of defensive protection. The WIPO Treaty requires that member states create databases for storing information related to genetic resources and associated indigenous knowledge.[16] In so doing, member states must consult with indigenous communities to ensure the documented knowledge is accurate.[17] Likewise, South Africa has established the National Indigenous Knowledge Management System (NIKMAS), the National Recordal System (NRS), a mechanism for recording indigenous knowledge and its associated resources.[18]

When patent examiners assess patent applications, they may rely on this database to ensure they do not grant a patent over indigenous knowledge not disclosed in the patent application. Khalala reflects on the benefits of a recordal system and argues that documenting indigenous knowledge maintains the existence and protection of indigenous knowledge as it is accessible to anyone who wishes to validate the existence and legitimacy of any aspect of indigenous knowledge.[19]

Therefore, it may be argued that it is essential to ensure that these repository databases are accessible to everyone at any time. Further, they must be updated to ensure that real-time information exists and is available to the public and those who wish to patent their inventions. While it is beneficial to document indigenous knowledge, respect must be afforded to indigenous communities whose information is secret, taboo, or spiritual. Then, it does not have to be publicised. Balogun and

[16] Article 6 of the World Intellectual Property Organisation Treaty on Intellectual Property, Genetic Resources and Associated Traditional Knowledge.
[17] *Ibid*.
[18] Department of Science and Innovation, 'National Indigenous Knowledge Management System' <NIKSO Portal (dst.gov.za)> accessed 19 August 2024.
[19] Gugu Khalala, 'Protecting and benefiting from indigenous knowledge: The National Indigenous Knowledge Management System' (2021) 17 ScienceScope 56 <khalala-2021-protecting-and-benefiting-from-indigenous-knowledge-the-national-indigenous-knowledge-management-system.pdf> accessed 19 August 2024.

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Kalusopa submit that for an effective recordal system, a policy framework must be designed to ensure correct procedures, including those of the management system.[20]

6.2.2.3. Trademarks and Geographical Indications

Article 10 of the IP Protocol mandates member states to use and encourage the use of marks to foster sustainable development.[21] This section determines how marks can be used to safeguard indigenous knowledge to foster African economic development.

Trademarks can be used to safeguard various aspects of indigenous knowledge. Indigenous people can use trademarks to protect their marks and symbols.[22] For a mark to be registered, it must be a sign of names, letters, figurative and colour combinations and elements, and numerals.[23] Indigenous knowledge can be categorised into one or more of the above non-exhaustive requirements of a mark.[24]

The fact that a trademark was registered concerning rooibos indicates that even indigenous marks that distinguish certain products from others can be registered as IP.[25] Therefore, marks that tend to distinguish indigenous products and processes from others can be recognised and registered in the context of the IP Protocol.

The appropriateness of using trademarks to safeguard indigenous knowledge lies in its ability to minimise confusion for those who may not know that a particular aspect of indigenous knowledge has been registered as an IPR. This promotes lawful competition while minimising the search costs.[26] Trademarking specific indigenous knowledge may also distinguish African indigenous knowledge from indigenous knowledge found on other continents.[27]

Furthermore, article 9 of the IP Protocol provides that member states are to safeguard geographical indications (GI).[28] Frankel believes that GI are closely related to

[20] See Tolulope Balogun and Trywell Kalusopa, 'A framework for digital preservation of indigenous knowledge system (IKS) in repository in South Africa' (2021) 31(2) Records Management Journal 177 <EM-RMJJ210012 176..196 (emerald.com)> accessed 19 August 2024.
[21] See generally, article 10 of the IP Protocol.
[22] Susy Frankel, 'Trademarks and traditional knowledge and cultural intellectual property rights' (2011) 1(6) paper no 36/2011 Victoria University of Wellington Legal Research Papers.
[23] Article 15(1) of the TRIPS Agreement.
[24] Susy Frankel, 'Trademarks and traditional knowledge and cultural intellectual property rights' 13.
[25] Zenobia Ismail and Tashil Fakir, 'Trademarks or trade barriers? Indigenous knowledge and the flaws in the global IPR system' (2004) 31(12) International Journal of Social Economics 173.
[26] Susy Frankel, 'Trademarks and traditional knowledge and cultural intellectual property rights' 28-33.
[27] Susy Frankel, 'Trademarks and traditional knowledge and cultural intellectual property rights' 30-32
[28] Article 9 of the IP Protocol.

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trademarks and,[29] hence, are collectively explored herein. In this context, African indigenous people can protect their indigenous knowledge relevant to a particular geographical jurisdiction. This relates to trademarks in that a specific mark may identify a particular aspect of indigenous knowledge, such as Africa's expertise and associated resources. GI recognise the collective rights embedded in specific expertise and, therefore, are relevant for safeguarding indigenous knowledge belonging to the members of the AfCFTA Agreement. For example, rooibos is attributed to Southern Africa

6.2.2.4. Copyrights and related rights

Reddy and Aswath define copyright as an exclusionary right granted to a creator for their artistic work, which prevents others from reproducing, adapting, translating, distributing, and performing without consent from the creator.[30] Article 11 of the IP Protocol provides that member states must safeguard copyrights and the associated rights.[31] This copyright and the related rights must encourage "the preservation of cultural materials for advancing public welfare and sustainable development".[32] Arguably, cultural materials referred to herein include indigenous knowledge.

The preceding copyright can, therefore, be used to safeguard the artistic work of indigenous knowledge holders against unlawful access, use and distribution. These works could include, but are not limited to, tales, poems, traditions, music, and artefacts. Related rights could safeguard the performance of the above-mentioned artistic works. Therefore, copyrights can be used to protect indigenous knowledge in the context of the IP Protocol.

6.2.2.5. Plant breeders' right

If the AU does not consider extending patent protection to plant biological varieties, plant breeders' rights are a solution. The requirements are the same as those of patents; therefore, this section does not repeat the argument about patents. Article 8 of the IP Protocol states that states should safeguard new plant varieties.[33] This may

[29] Susy Frankel, 'Trademarks and traditional knowledge and cultural intellectual property rights' 23.
[30] Anjaneya Reddy and Lalitha Aswath, 'Understanding Copyright Laws: Infringement, Protection and Exceptions' (2016) 2(1) International Journal of Research in Library Science 48 <discardtheaffidavitevidenceandpermittofilefreshevidence1.pdf> accessed 16 June 2024.
[31] Article 11(1) of the IP Protocol.
[32] Article 11(2) of the IP Protocol.
[33] Article 8 of the IP Protocol.

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be read with article 20, which requires the protection of genetic resources. In this manner, plant breeders' rights safeguard the new inventive steps for plant varieties.

6.2.2.6. Designs

Article 14 of the IP Protocol states that member states should safeguard industrial designs.[34] Indigenous people also have ways of designing things, such as how they build their huts and kraals. This is an evolving field, and indigenous designs still influence the contemporary era. Therefore, the new and distinct designs may be protected as an IPR, so safeguarding indigenous knowledge.

6.2.2.7. Reflections on IP frameworks

Despite the criticisms against using conventional IP regimes, this chapter highlighted that the IP regime can safeguard indigenous knowledge when adequately adapted. This section indicated how patents, copyrights, related rights, designs, trademarks, plant breeders' rights and GI can be adapted to accommodate indigenous knowledge under the IP Protocol.

Copyrights can be used to safeguard the artistic and literary work of the indigenous communities. Patents, on the other hand, can protect indigenous innovations and inventions. Plant breeders' rights can be used to safeguard new plant varieties. On the other hand, designs can be used to protect the designs of indigenous products. Furthermore, GI can be used to preserve certain indigenous goods originating from a specific area. Trademarks such as names, symbols, and slogans can be used to safeguard indigenous knowledge. The following section explores additional solutions to the unlawful access and use of indigenous knowledge.

6.3. A Framework for ABS, FPIC and prior art disclosure: A *sui generis* regime for indigenous knowledge

6.3.1. Introduction

As an alternative approach to safeguarding indigenous knowledge in the IP Protocol, a *sui generis* system holds promise and, therefore, is explored in this section. *Sui generis* is a Latin phrase that means "special and unique kind".[35] Protecting indigenous

[34] Article 14(1) of the IP Protocol.
[35] Moni Wekesa, *What is sui generis system of intellectual property protection?* (The African Technology Policy Studies Network 2017) <Technopolicy Brief 13.pmd (atpsnet.org)> accessed 19 August 2024.

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knowledge would mean a unique system outside the ordinary and known protection system. Sand argues that the continued exploitation of indigenous knowledge and associated resources proves there is a need for a specific regime to safeguard this knowledge.[36] She argues that since the conventional IP regime may not comprehensively cover the customary norms and cultural and spiritual rights associated with indigenous knowledge, there is a need to develop a system that covers a wide range of these issues.[37]

Mpanza submits that a *sui generis* framework is characterised by a customised set of rules depending on the subject matter.[38] Paul believes that a *sui generis* framework safeguards indigenous knowledge outside the conventional West-centred systems like the IP regime.[39] She states that this framework fosters fairness by ensuring that only the legitimate owners of rights over indigenous knowledge are granted legal rights over the knowledge.[40]

The following are the elements of a *sui generis* framework developed by the WIPO: providing the meaning and scope of indigenous knowledge; identifying holders of rights/beneficiaries; scope of protection; disclosure requirements; administrative mechanisms; creation of databases; cross-border protection and cooperation; dispute-resolution mechanisms; and sanctions and penalties.[41]

From the international, regional and national frameworks, as well as the best practices and policies explored throughout this study, this chapter identified the following frameworks: ABS, FPIC, prior art disclosure, human rights, customary law, and

[36] Sabine Sand, 'Sui generis laws for the protection of indigenous expressions of culture and traditional knowledge' (2003) The University of Queensland Law Journal 188 <Sui Generis Laws for the Protection of Indigenous Expressions of Culture and Traditional Knowledge (informit.org)> accessed 19 August 2024.
[37] Sabine Sand, 'Sui generis laws for the protection of indigenous expressions of culture and traditional knowledge' 188-190.
[38] Xoliswa Mpanza, 'Protecting Traditional Knowledge' (2014) De Rebus 23 <Protecting traditional knowledge (journals.co.za)> accessed 19 August 2024.
[39] Jacqueline Paul, 'Traditional Knowledge Protection and Digitization: A Critical Decolonial Discourse Analysis' (2023) 36 International Journal of the Semiotics of Law 2133 <s11196-023-09989-8.pdf> accessed 19 August 2024.
[40] Jacqueline Paul, 'Traditional Knowledge Protection and Digitization: A Critical Decolonial Discourse Analysis' 2135.
[41] WIPO, 'Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore' (2012) WIPO/GRTKF/IC/21/4 <Microsoft Word - WIPO-GRTKF-IC-21-4 - 17 01 12.doc> accessed 19 August 2024.

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administrative mechanisms. These comprise a *sui generis* approach to safeguarding indigenous knowledge in the context of the IP Protocol.

6.3.2. Access and benefit sharing agreements

The IP Protocol suggests an ABS for safeguarding indigenous knowledge and the holders thereof.[42] An ABS mechanism is, therefore, an opportunity to balance the rights of indigenous knowledge holders and the external parties wishing to access indigenous knowledge. This section determines how the ABS mechanism can be shaped in the AfCFTA framework to safeguard indigenous knowledge effectively. ABS can be incorporated and implemented through a multifaceted approach and legislative, institutional, and procedural mechanisms.

The IP Protocol already includes a provision mandating the use of ABS to safeguard indigenous knowledge and leaves it to the states to develop rules for implementation.[43] The benefits to be shared accrued due to the access to and the use of indigenous knowledge and associated resources. The ABS mechanisms should be aligned with international and African regional frameworks such as the CBD, The Bonn Guidelines on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising Out of Their Utilization (Bonn Guidelines); and the 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 (Nagoya Protocol) – to ensure consistency.

The IP Protocol should mandate states to adapt their national laws to align with its framework, creating a coherent system of protecting indigenous knowledge. The IP Protocol may establish a secretariat for ABS to assist with support and compliance matters as part of its institutional mechanisms. In addition, the IP Protocol must ensure that a procedure for accessing indigenous knowledge and associated resources is clearly stated– obtaining FPIC from the indigenous knowledge rights holders and in a prescribed form. There must be standard templates for access and benefit sharing (ABS) agreement to guide prospective parties on how to draft their agreements.

Protective measures will be effective if the IP Protocol establishes a checks and balance system. This could be through audit and reporting mechanisms. Through this,

[42] Article 18(c) of the IP Protocol.
[43] *Ibid*.

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the AfCFTA Secretariat and other relevant stakeholders will be able to determine where the implementation is lacking and impose the necessary measures to remedy the defect. As provided in article 33 of the IP Protocol, capacity-building can be achieved through educational programmes, public campaigns, and awareness campaigns.

6.3.3. FPIC and prior art disclosure

FPIC and prior art disclosure are other essential principles for safeguarding indigenous knowledge. Giving freedom to the indigenous people on who and when to consent to access their knowledge ensures that people respect their craft and access it only when granted consent. On the other side, prior art disclosure ensures transparency. This section illustrates how these principles (FPIC and prior art disclosures) can be combined to safeguard indigenous knowledge in the context of the IP Protocol.

The texts of the IP Protocol must incorporate terms of access and use and indicate that indigenous people have the right to consent to access and use their indigenous knowledge. They must indicate that with obtaining consent first, every person should use indigenous knowledge and the associated resources. In so doing, the IP Protocol may require that the state parties require the following: the inclusion of indigenous people in decision-making processes and consulting in good faith and acknowledging indigenous people as the owners or holders of rights over indigenous knowledge.[44]

The IP Protocol can also establish institutional bodies that will oversee ABS Agreements negotiations, consent giving, and conclusions. The negotiation procedures should consider the rules developed by respective communities as outlined in their respective community protocols. The IP Protocol should also establish a recordal system that responds to the digital era, making tracking how FPIC is being implemented easy.

Prior art disclosure may also be included in the patent law aspect of the IP Protocol. Through this, applicants for patents for indigenous knowledge must mention whether their inventions or creations involve a step or product derived from indigenous knowledge. Indigenous knowledge databases would then be used to search existing indigenous knowledge. This means the IP Protocol should ensure the adequate

[44] See generally, the United Nations Declaration on the Rights of Indigenous Peoples <UN Declaration on the Rights of Indigenous Peoples | OHCHR> accessed 16 July 2024.

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documentation of indigenous knowledge. Capacity-building would include training relevant stakeholders on conducting proper searches and examining patents.

The IP Protocol should indicate clear rules on what prior art disclosure entails. This would include the information that should be disclosed and to what extent. For example, an applicant would have to disclose what plant or medicinal processes they wish to patent to the extent that it becomes clear to everyone what that product or process is. However, they should still maintain secrecy about the sensitive aspects of the subject matter. Trade secrecy law would be applicable in this sense. The IP Protocol should establish procedures that would assist indigenous people in objecting to patents and, subsequently, revoking them should it be proven that indigenous patent(s) have been infringed upon. This would include filing notices following the circulation of proposed patents over indigenous knowledge and associated resources through various modes of communication such as radio, newspaper and television.

6.3.4. Indigenous peoples' rights

This study has referred to the United Nations Declaration on the Rights of Indigenous Peoples, particularly in chapter four. Through the discussion, the study outlined that it is essential to recognise the rights that indigenous people have over indigenous knowledge and the associated resources. Recognising these rights would ensure that the IP Protocol fosters justice and equity for indigenous people. The IP Protocol can explicitly refer to human rights instruments, such as the African Charter on Human and Peoples' Rights and the United Nations Declaration on the Rights of Indigenous Peoples. These instruments are the basis and justifications for why the rights of indigenous people should be protected and respected. Through this, the IP Protocol can attribute certain rights to indigenous people/communities over indigenous knowledge and associated resources, namely, the right to ownership, equitable benefit sharing, socio-economic rights, and self-determination.

The IP Protocol may establish institutional bodies to oversee and ensure that indigenous peoples' rights are respected. For example, these could be committees, councils and boards. Training officials and indigenous communities and educating them about their rights would create awareness; they would know whom to approach for assistance when their rights are violated. This can be achieved through educational, legal and technical support mechanisms.

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The IP Protocol should promote the participation of the indigenous community in decision-making processes on issues concerning their indigenous knowledge. For example, third parties who wish to access and use indigenous knowledge must consult with indigenous communities and offer them an equal and fair representation. The IP Protocol should ensure that indigenous communities have the option to raise their grievances about the access and use of their indigenous knowledge by third parties. Mediation and arbitration approach also save the costs of taking the disputes over indigenous knowledge and associated resources to court.

To monitor the upholding of indigenous peoples' rights considerations, the IP Protocol may establish a monitoring and reporting mechanism. Through this, there must be a reporting procedure where the IP Protocol's regulatory body is informed on the status of the indigenous people. Setting benchmarks will help determine whether there is any lack of upholding the rights of indigenous people.

Customary law is a legal system comprising indigenous practices that govern indigenous people's lives.[45] Customary law, therefore, represents the reality of the African indigenous people. Thus, customary norms can safeguard indigenous knowledge in the context of the IP Protocol, as they govern how indigenous people use and manage their indigenous knowledge, associated resources, and expressions of folklore. The discussion below outlines how this can be possible.

The IP Protocol should explicitly recognise customary law as a point of reference for safeguarding indigenous knowledge. Advisory bodies should be established to advise on how ABS, FPIC, and prior art disclosure requirements may be executed. Therefore, these bodies would help interpret customary law, practices, and dispute-resolution mechanisms. The capacity-building mechanisms should focus on educating officials, indigenous communities and IP professionals on the importance of customary law in safeguarding indigenous knowledge.

The IP Protocol should endeavour to support the development of community protocols, which shall outline indigenous people's rights and responsibilities over indigenous knowledge and determine ABS per indigenous communities' practices and norms.

[45] Chuma Himonga and Ronald Thandabantu Nhlapo (eds) *African Customary Law in South Africa. Post-Apartheid and Living Law Perspectives* (Oxford University Press Southern Africa 2015).

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Customary law, therefore, promotes the inclusion of indigenous communities and entails norms and standards for them.

Audits could be used to determine whether the access and use of indigenous knowledge is being done as per customary laws and practices of the respective indigenous communities. The IP Protocol could include a provision establishing a procedure where respective indigenous communities would provide feedback on the access, use and safeguarding of indigenous knowledge. Failure to adhere to customary norms and practices should result in culturally applicable sanctions that are enforceable within the ambits of the law. The IP Protocol should reflect this.

6.3.5. Administrative mechanisms

Rules are one thing, and implementation/enforcement is another. The administrative mechanisms help with the implementation of rules. In this context, they must contribute to effectively implementing rules for safeguarding indigenous knowledge in the IP Protocol. This section outlines how the IP Protocol may feature an administrative functionary framework for protecting indigenous knowledge.

The IP Protocol could establish a body responsible for administrative duties to safeguard indigenous knowledge. A specialised unit responsible for indigenous knowledge would coordinate the rules developed in this study and any other additional rules, if any. The specialised unit would also offer expert advice on the experiences and best practices in safeguarding this knowledge. The Agreement should mandate member states to design a body that will liaise with indigenous communities on issues concerning their expertise and monitor adherence to the IP Protocol's rules.

Some administrative mechanisms not provided in the IP Protocol include legal and general assistance. Under this, the IP Protocol's framework could mandate member states to assist indigenous communities with general support and legal aid in safeguarding their indigenous knowledge. This could include legal representation and advisory services regarding negotiations, dispute-resolution mechanisms and reporting.

Chapter Five showed that NGOs may also be essential in implementing rules to safeguard indigenous knowledge.[46] In the context of the IP Protocol, these

[46] See discussion in 5.7.2 under chapter two above.

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organisations may be allowed to bring the matter to the relevant body where there is an allegation of violating the rights of indigenous people over indigenous knowledge and associated resources. This would be achieved by awarding status to the NGOs to bring class action on behalf of the indigenous people. This would ensure that the indigent and illiterate indigenous people are afforded a chance to contest an exploitation of their rights

6.4. Guidelines

6.4.1. Introduction

The discussion above shows that safeguarding indigenous knowledge within the context of the IP Protocol would require the following: an adaptation of the conventional IP regime and, lastly, a *sui generis* regime, which covers the following: human rights, customary law, access and benefit sharing (ABS), free, prior and informed consent (FPIC), prior art disclosures, and relevant administrative measures. In this section, I show how these can influence the development of rules to be included in the Annex to the IP Protocol on indigenous knowledge.[47]

6.4.2. Guideline 1: Developing a clear and comprehensive definitional and conceptual meaning of indigenous knowledge

The IP Protocol should be guided by the following elements of indigenous knowledge: practical and experimental skills, practices, and skills developed by indigenous people and indigenous communities. This definition should acknowledge the evolving nature of indigenous knowledge, which crosscuts various fields such as, but not limited to, medicine and agriculture, culture and spiritual practices. Furthermore, the definition of indigenous knowledge should situate the communal ownership of the knowledge in context. This would outline the essential value accorded to the cultural identity of the indigenous people/ communities. The definition should acknowledge different forms of indigenous knowledge, tangible and intangible. Since this knowledge differs across Africa, the definition should accommodate the flexibility of the knowledge.

[47] Article 41(h) of the IP Protocol.

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6.4.3. Guideline 2: Address historical injustices and promote equity

Viewed from the biopiracy theory discussed in chapter two of the study, the IP Protocol must consider and remedy the past injustices indigenous people/ communities have been subjected to, particularly regarding the access and use of their indigenous resources. This recognition should be structured to indicate a strong foundation for creating regulations to address these injustices. The framing of rules in the IP Protocol should symbolise a venture into ensuring justice towards the indigenous communities in Africa. These rules should thus empower indigenous people to receive fair compensation for accessing and using their indigenous resources. The IP Protocol should recognise indigenous people's control over their indigenous resources.

6.4.4. Guideline 3: Fostering sustainable development

Safeguarding indigenous knowledge in the IP Protocol should be approached from the sustainable development perspective, ensuring a perpetual existence, access and use of indigenous knowledge. For example, the IP Protocol should include measures to conserve tangible indigenous resources such as biological resources. The IP Protocol should indicate how the IP regime may be used to safeguard the intangible indigenous property. Therefore, the sustainability of indigenous knowledge and the associated resources may be achieved through documentation, educational programmes, exchange of information and cooperation, and community awareness programmes.

6.4.5. Guideline 4: Theoretical foundations

Safeguarding indigenous knowledge within the IP Protocol should also be approached from a theoretical perspective. The integrated indigenous knowledge protection theory developed in this study advocates for combining the following theories: biopiracy, IP, and economic theories.

From a biopiracy perspective, the IP Protocol should include measures that prevent unlawful, unethical and unfair access and use of indigenous knowledge and the associated resources. Through this, the IP Protocol should emphasise that indigenous people should be compensated for accessing and using their indigenous resources. This can be achieved by developing rules on access and benefit sharing (ABS), free

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prior informed consent (FPIC), and prior art disclosures. For this, the IP Protocol must indicate that the indigenous people are in control of their indigenous resources, and any person who wishes to access and use these resources should obtain consent from the respective indigenous community. Indigenous communities' protocols should dictate the engagement between external stakeholders and the indigenous people.

Therefore, the IP Protocol should resemble this by eliminating the irrelevant Western legacies evident in its IP regime. Therefore, the IP Protocol must acknowledge the value of indigenous knowledge and the associated resources and how this would promote African ideology and respect towards indigenous communities.

IP theories justify treating indigenous knowledge as an intellectual property right (IPR). Since the conventional IP regime does not cater to indigenous knowledge, an IP regime would need to be adapted. The IP theories, in conjunction with the economic theory, align with the IP Protocol's objective of recognising the economic potential of indigenous knowledge and the associated resources. The IP Protocol, however, must not overemphasise the commercialisation of indigenous knowledge and related resources at the expense of indigenous people. Adapting the conventional IP regime would require that the IP Protocol lay out how ABS and FPIC are to be implemented. For example, applicants for IPRs over indigenous knowledge must first obtain consent from respective indigenous communities and must disclose this.

6.4.6. Guideline 5: Developing a sui generis regime

As an alternative to adapting the conventional IP regime, the IP Protocol must acknowledge the distinct characteristics of indigenous knowledge and the associated resources. These characteristics include communal ownership, collective rights, and adaption. This knowledge is attributed to several people within indigenous communities and is passed from generation to generation. The knowledge is eventually changed in the process, making it a "living knowledge".

To safeguard the rights of indigenous people, the IP Protocol must ensure that the rules in the Annex require proof of consent before any access and use of indigenous knowledge and the associated resource(s); provides a fair and transparent negotiation for ABS agreements; and promote the reference to indigenous communities' protocols on how external stakeholders should engage them.

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The IP Protocol could capacitate indigenous people by ensuring inclusivity in decision-making. This would enable them to negotiate how their knowledge should be accessed, used and commercialised. Therefore, the IP Protocol could introduce legal and financial assistance to indigenous people and ensure they can access crucial information relevant to the negotiations and the access and use of this knowledge. The IP Protocol could also provide for agents to the indigenous people and offer educational seminars to the public.

Furthermore, the IP Protocol should explicitly indicate that safeguarding indigenous knowledge in the contemporary era is a redress measure for the violation of indigenous people's rights that has occurred over the years. The IP Protocol must recognise indigenous people's rights, for example, as indicated in the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP). The IP Protocol should also recognise the importance of customary rule in safeguarding indigenous knowledge and the associated resources. These are usually unwritten rules which guide how indigenous knowledge should be accessed, used, and transmitted. This can be achieved by including rules that enable the dual existence of laws at the African regional level.

The IP Protocol should mandate an indigenous knowledge office with advisory and coordination duties as part of its administrative duties. The IP Protocol should also indicate the sanctions imposed when a person has unlawfully accessed and used indigenous knowledge. The IP Protocol should create a reporting mechanism to ensure that the Agreement's provisions are adhered to, and that the AU is aware of any difficulties. This would enable the AU to strategically design mitigating measures, thus promoting and safeguarding indigenous knowledge.

In conclusion, I argue that a *sui generis* regime for indigenous knowledge requires recognising indigenous people's rights over indigenous knowledge, customary law rules, the unique nature of indigenous knowledge, and administrative mechanisms. This list is endless. However, the point is that a combination of several mechanisms (holistic approach) would adequately contribute to the protection of indigenous knowledge within the context of the IP Protocol. The primary purpose is to ensure the commercialisation of knowledge without violating indigenous people's rights over the knowledge and the associated resources.

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Below is a proposal on how the Annex to the IP Protocol on indigenous knowledge should look.

6.5. Proposed structure of the Annex to the IP Protocol

Section A

6.5.1. Preamble to the Annex

The Preamble to the Annex must recognise that the Annex seeks to safeguard indigenous knowledge to achieve the objectives of the IP Protocol. At the same time, it must recognise the need to protect the rights of indigenous people/communities. The preamble must indicate that the contents of the Annex are based on recognising human rights, customary law, administrative mechanisms and the African experiences and best practices on accessing, using, and commercialising indigenous knowledge.

6.5.2. Definition and conceptualisation of Key Terms

The annex must define indigenous knowledge as a body of knowledge, skills, and practices developed by indigenous people within indigenous communities, where knowledge is passed from generation to generation. This definition should recognise the distinct nature of indigenous knowledge, including communal ownership and collective rights of the indigenous people over the knowledge. The definition should recognise the tangible and intangible aspects of the knowledge, including various sectors where this knowledge is applicable, e.g. medicine, education, agriculture, environmental conservation, and technology.

The Annex must indicate that the purpose of FPIC is to recognise indigenous people's rights over indigenous knowledge and the associated resources. It must be suggested that this principle enables indigenous people to grant or withhold consent to access, use, and disseminate their knowledge. Furthermore, the Annex must indicate that the purpose of ABS agreements is to ensure that indigenous people benefit from the access, use and commercialisation of their expertise and the associated resources.

Section B

6.5.3. Scope of the Annex

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The Annex must indicate its issues, including protection, sustainable use of indigenous knowledge, and promoting African economic development. The Annex should acknowledge the intersection between IP, human rights, economic growth, and sustainability as the main issues affecting indigenous knowledge's existence, protection, and preservation.

6.5.4. Conditions for the Protection of Indigenous Knowledge

The Annex should indicate who the beneficiaries of indigenous knowledge should be. In this case, it should be the indigenous communities. It should indicate who amongst the indigenous communities qualifies to be the beneficiaries of benefits accrued from the access, use and commercialisation of indigenous knowledge. The Annex should indicate these people's rights, including the right to protect, maintain, control, and develop indigenous knowledge.

Further, the Annex should indicate that these people have the right to benefit from any endeavour on indigenous knowledge. To ensure certainty, the Annex must indicate the duration of protection. The Annex could also include exceptions on the access and uses of indigenous knowledge. This could consist of non-commercial purposes and those reasons that are traditionally tolerated by respective indigenous communities.

Section C

6.5.5. Formalities

The Annex should require that any application for IPRs involving indigenous knowledge must comprehensively disclose the source of such knowledge. Additionally, the applicant must prove that they obtained consent from relevant indigenous people before making such an application. They must further confirm that all the written procedures for obtaining consent were followed and that the negotiations and agreement were entered into in good faith. The Annex must indicate the penalties for failing to meet these formalities, including revoking a contract.

6.5.6. Administrative Mechanisms

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The Annex should guide the establishment of a database that ensures the documentation of indigenous knowledge. The databases should be accessible to everyone looking to enquire about the existing indigenous knowledge. The Annex must require the establishment of an office responsible for monitoring and reporting compliance with the rules on obtaining consent, accessing and using indigenous knowledge.

6.5.7. Sanctions

The Annex should indicate sanctions that may be imposed on individuals found to have contravened the Annex, as well as other documents incident to the IP Protocol. These could include fines, revocation of rights, and compensation. The Annex may also include criminal sanctions in cases of extreme contravention of rules.

Section D

6.5.8. Regulation, Entry into Force, Implementation, Dispute Resolution, Review, and Amendment

The Annex should indicate the bodies responsible for its implementation to ensure certainty and accountability. As a result, the Annex should guide how this annex should be implemented. The Annex should also indicate how disputes are to be dealt with. This can be through arbitration, mediation, and the courts. All these mechanisms should indicate an effort to include indigenous communities in the processes. The Annex should contain a clause allowing review and regular amendment. This would enable the AU to revisit and reconsider some rules as and when indigenous knowledge has changed over time.

6.6. Conclusion

Drawing from measures distilled in preceding chapters, particularly chapters four and five, this chapter argues that protecting indigenous knowledge within the context of the IP Protocol requires a multi-focused approach. This approach should consider IPRs in indigenous knowledge, indigenous peoples' rights, customary law, and administrative mechanisms. The next chapter concludes, highlighting the background, findings, and a proposal for future studies.

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CHAPTER SEVEN
CONCLUSIONS AND RECOMMENDATIONS

7.1. Introduction

The preceding chapters engage academic literature, case law, official reports, and legal instruments on access, promotion, and safeguarding of indigenous knowledge and related rights and situated these in the context of the Agreement Establishing the African Continental Free Trade Area (AfCFTA Agreement), specifically the Protocol to the Agreement Establishing the African Continental Free Trade Area on Intellectual Property Rights (IP Protocol).

This chapter first reiterates the critical points of the study: the research problem, aims and objectives, and research methodology. Second, this chapter reviews the study's main findings. Last, this chapter proposes an area for further research.

7.2. Brief overview of the study

7.2.1. Research problem

The research problem in this study concerns the need for the current legal regime, particularly the AfCFTA Agreement, to comprehensively safeguard indigenous knowledge. Furthermore, the AU has yet to develop various annexes for the IP Protocol, including an annex on indigenous knowledge and associated resources. With the systematic preclusion of indigenous knowledge from the conventional legal systems, there is a need to develop a comprehensive system that caters for African needs. The protection issue is worsened by a need for a universal conceptualisation and definition of what some scholars term traditional knowledge, while others refer to the same as indigenous knowledge. Though the IP Protocol caters for this knowledge, it does so broadly and mandates member states to develop further measures to implement the Agreement.[1]

7.2.2. Research methodology

Using desktop research, this study adopted the doctrinal research methodology, which enabled it to make legal conclusions. This was achieved by analysing legislation,

[1] See generally, the AfCFTA Agreement, and specifically the IP Protocol.

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policies, relevant case law, and other legal and non-legal instruments. This helped determine the prospects and challenges of safeguarding this knowledge at the international, regional, and national levels, but especially at the regional level where the AfCFTA Agreement is enforceable. Having explored and examined these sources, this study recommends a blended approach, which includes balancing the rights of indigenous people over indigenous knowledge and associated resources, as well as the economic development goals of the AU.

7.2.3. Aims and objectives

To address the above challenges, this study aimed to develop a specific and strategic framework that would inform the safeguarding of indigenous knowledge and associated resources in the context of the AfCFTA Agreement (IP Protocol). This endeavour had the following objectives:

7.2.3.1. Establishing the meaning and outlining the justification for protecting indigenous knowledge under the trade regime;

7.2.3.2. Examining the propriety of protecting indigenous knowledge through trade regimes, especially the AfCFTA Agreement;

7.2.3.3. Examining the existing international, African regional, and national frameworks for protecting of indigenous knowledge; and

7.2.3.4. Developing specific legal and policy guidelines that will best ensure the protection of indigenous knowledge in the setting of the AfCFTA Agreement.

This study achieved these objectives by analysing the academic literature, case law, and legal and non-legal instruments that attempted to conceptualise and define the concept of knowledge. Viewed from the theoretical perspective, this study developed an integrated theory for the safeguarding of indigenous knowledge, which comprised the biopiracy theory, free, prior informed consent (FPIC), intellectual property (IP) theories, and economic theory. The study analysed academic literature that explored the nature of trade regimes, which then enabled it to note that trade agreements, especially the AfCFTA Agreement, are an opportunity to become the most

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comprehensive instrument in safeguarding indigenous knowledge. The International, regional and national frameworks, best practices and experiences with developing guidelines in Chapter Six are the basis for the recommendations in this chapter.

7.3. An overview of the main findings

7.3.1. Definitional, conceptual meaning, rationale, and the theoretical framework for protecting indigenous knowledge

While Chapter One outlined the research problem, aims, objectives, and methodology, Chapter Two offered a definitional, conceptual, and theoretical perspective on indigenous knowledge and its protection. Drawing inferences from the World Intellectual Property Organisation (WIPO), the chapter defined indigenous knowledge as knowledge passed from generation to generation, forming part of the cultural, social, and spiritual identity. It was indicated in Chapter Two and throughout the study that this knowledge crosscuts various fields such as agriculture, education, biodiversity, medicine, and medicine. The chapter highlighted the difficulties of defining this knowledge, forming the basis of this study's strategic framework. These challenges range from ownership to knowledge transmission.

Through its theoretical lens, the chapter showed that indigenous knowledge protection needs dismantling of the history and legacy of colonialism to the extent that such structures, legacies, and historical systems do not cater for the needs of African indigenous communities. This would then require an adaptation of the IP regime to cater for African needs. This perspective would put indigenous communities at the centre of governance, enabling them to develop policies encouraging fair and equitable ABS.

In addition, the biopiracy theory seemed to correspond well with the FPIC. Through this, the chapter argued that safeguarding indigenous knowledge in the context of the AfCFTA Agreement should ensure the inclusion of indigenous communities and, subsequently, a fair sharing of benefits accrued from the access, use, and commercialisation of indigenous knowledge. Thorough consultation of the indigenous communities would be the first step towards achieving fair and equal distribution of benefits. Despite the challenges of safeguarding indigenous knowledge in the conventional IP regime, this chapter argues for protecting indigenous knowledge from

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the perspective of IP theories. This approach advocates recognising property rights in indigenous knowledge that the indigenous communities would not be deprived of.

Building on the IP theories, the economic theory justifies the commodification of indigenous knowledge and exposes the commercial potential of the knowledge. As the indigenous communities can commercialise indigenous knowledge and associated resources, they would quickly generate an income, contributing to their economic development. The more economically emancipated people are, the less burden on the state to develop them.

The economic theory enabled this study to advocate the sustainability principle of the AU, which would ensure that indigenous people's tangible property is responsibly deployed to the markets. It would need to be ensured that indigenous intellectual property is kept under the control of the indigenous people so that it can sustainably contribute to the economic development of these communities. Furthermore, this would be made possible through financial support, capacity-building, and access to markets for indigenous knowledge and associated resources.

For intangible indigenous knowledge, the AfCFTA Agreement must ensure that the holders of rights over indigenous knowledge can retain control of the knowledge being commercialised, and where they cannot, they are fairly compensated for it. Safeguarding indigenous knowledge as a commercial commodity to achieve the economic development of the AfCFTA Agreement would require financial support, market access, and capacity-building for indigenous communities. The chapter argued that as indigenous knowledge is a commodity and a tool for sustainable development, its protection is therefore justified.

In conclusion, Chapter Two argued that there is a need for a *sui generis* approach that addresses the unique nature of indigenous knowledge at a regional level. On this basis, the subsequent chapters were used to develop a specific framework that would inform the development of rules for the Annex to the IP Protocol on safeguarding indigenous knowledge.

7.3.2. Protecting indigenous knowledge in the trade regime

Chapter Three explored the intricacies of using trade agreements to safeguard indigenous knowledge and focused on the AfCFTA Agreement. This was done to

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determine how effective trade agreements are in achieving economic development goals. The chapter began by outlining the concept of regional integration in the context of Africa. Through this, the chapter created an understanding of the role of REC, recognised as the AfCFTA Agreement's building blocks. By exploring the legal instruments that regulate these communities, the chapter highlighted various essential guidelines for a harmonised legal framework for socio-economic development.

The chapter explored the AfCFTA Agreement and identified specific provisions supporting indigenous knowledge's intellectualisation. These provisions mainly link indigenous knowledge, innovation, and socio-economic development. Conducted as a case study, the chapter explored the two major RECs: the Southern African Development Community (SADC) and the Economic Community of West African States (ECOWAS). It showed how these communities safeguard indigenous knowledge.

However, it was found that most instruments in these communities need to mention indigenous knowledge explicitly and continually refer to biological resources, agriculture, science and technology, sustainable development, and culture. It was argued that this could accommodate indigenous knowledge. This is because these categories, as shown throughout the study, can encompass indigenous knowledge. While inferences are drawn in this instance, I argued for a framework that explicitly regulates indigenous knowledge and associated resources. While acknowledging the incompatibilities between the IP regime and the indigenous knowledge systems, the study argued for defensive IP protection and a *sui generis* regime to safeguard indigenous knowledge. It argued that this must be achieved to realise African economic development.

In conclusion, the chapter found that RTA, like the AfCFTA Agreement, can potentially safeguard indigenous knowledge. This is because they seek to balance the interests of indigenous people by fostering respect for their rights over indigenous knowledge while ensuring they are developed socio-economically, which is the basis for the RTD that addresses the self-determination of indigenous communities. The AU must develop a more explicit framework that outlines how indigenous knowledge should be safeguarded.

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7.3.3. A framework for protecting indigenous knowledge

Chapters four and five examined the framework for indigenous knowledge internationally, regionally, and nationally. Specifically, Chapter Four explored the international and regional (African) frameworks and examined their potential to inform the safeguarding of indigenous knowledge in the context of the AfCFTA Agreement. It considered the legal and policy frameworks to protect indigenous knowledge in the context of the African Continental Free Trade Area (AfCFTA) Agreement.

Chapter Four examined various international instruments such as the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), the International Covenant on Civil and Political Rights (ICCPR), and the International Covenant on Economic, Social, and Cultural Rights (ICESCR). These instruments affirm indigenous people's rights over indigenous knowledge and associated resources. In particular, these instruments affirm the right to self-determination, participation, and fair sharing of benefits from the access, use and commercialisation of indigenous knowledge and associated resources.

The chapter successfully connects the principles of these international instruments to the protection of indigenous knowledge. The emphasis on the need for FPIC is crucial, as it ensures that indigenous communities are actively involved in decisions affecting their expertise and resources. The chapter also explored the recently adopted WIPO Treaty and the Treaty on Intellectual Property, Genetic Resources and Associated Traditional Knowledge, 2024, which seeks to buttress the inclusion and safeguarding of indigenous knowledge in the IP regime. The defensive protection aims to prevent an unauthorised, unethical and unfair appropriation of patents over indigenous knowledge and the associated resources.

In addition, the Convention on Biological Diversity (CBD) buttresses the disclosure requirements discussed in the chapter, where member states are mandated to ensure they include indigenous communities in the decision-making processes, which would ensure fair and equitable sharing of benefits.

On the African regional level, the chapter examined instruments such as the African Charter on Human and Peoples' Rights and resolutions adopted by the African Commission on Human and Peoples' Rights. These instruments further affirm the

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recognition of human rights attached to indigenous knowledge and its associated resources.

On the other hand, Chapter Five was specific by exploring the South African framework for indigenous knowledge. This country was chosen given its broad framework for safeguarding indigenous knowledge. For example, the Department of Science and Innovation (DSI)'s Indigenous Knowledge Systems (IKS) Policy, 2004, forms the basis for including indigenous knowledge in the IP regime. The policy also introduces a *sui generis* regime, characterised by capacity-building, advisory services, legal reforms, and development programmes. The chapter argued for using a recordal system to manage indigenous knowledge effectively, which is made possible by a rigid institutional framework.

The policy's mention of human rights and culture indicates that there is a need to acknowledge the historical injustices the indigenous people have experienced. The injustices extend to the non-recognition of indigenous intellectual property. The chapter argued that indigenous knowledge should be recognised as intellectual property and a form of restorative justice. Integrating ABS into the IP regime to revolutionise the safeguarding of indigenous knowledge would require a robust institutional framework to ensure these are practically possible.

In addition, the chapter argued for using educational systems to promote indigenous knowledge. For example, the University of Venda in South Africa has a dedicated Indigenous and African Studies course. It is argued that educators need to be trained in indigenous knowledge systems. However, achieving this depends on the willingness of educational institutions and the availability of resources.

The role of traditional leaders and women in safeguarding indigenous knowledge is well articulated. Traditional leaders' involvement in advising government officials and ensuring fair access to indigenous knowledge is essential. Similarly, recognising women's contributions and integrating their expertise into the broader framework is a positive step towards inclusive and holistic indigenous knowledge protection.

The chapter discussed the establishment of a national office for indigenous knowledge issues, which would be responsible for managing and safeguarding indigenous knowledge. This office's role in providing resources, developing implementation plans, and facilitating cooperation between indigenous knowledge holders and third parties

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is crucial for effective governance. However, the practical implementation of such an office requires careful consideration of various indigenous communities' diverse needs and contexts. Ensuring that the office operates in a manner that respects and upholds indigenous rights and customs is paramount.

Chapter Five also argued for using capacity-building initiatives to see the indigenous communities participate in decision-making processes. The chapter suggested that small-scale businesses trading in indigenous knowledge should be supported, fostering self-sufficiency and promoting economic development. Capacity-building is essential for empowering indigenous communities and ensuring their active participation in decision-making processes. In using information and recordal systems, responsible bodies must ensure that these services are accessible to the public, ensuring transparency.

Including indigenous knowledge in the IP regime through the Patent Amendment Act[2] confirms the justification for safeguarding indigenous people within the IP aspect of the AfCFTA Agreement. In conclusion, Chapter Five also affirmed the use of a blended approach to preserving indigenous knowledge, which includes adapting the conventional IP regime and developing a *sui generis* regime encompassing all the considerations informed by the RTD.

The South African framework should be considered when developing a framework for safeguarding indigenous knowledge in the context of the AfCFTA Agreement. This is because this framework highlights the consideration of human rights, cultural identity, education, and an institutional framework for governing the safeguarding of indigenous knowledge.

7.3.4. Guidelines for protecting indigenous knowledge under the AfCFTA Agreement

Chapter six developed guidelines that should inform the annexes on indigenous knowledge under the IP Protocol. The chapter argued that this endeavour must comprehensively cater for the following: human rights, customary norms, IPR, ABS and FPIC, and administrative functions. This system should provide a comprehensive conceptualisation and definition of indigenous knowledge.

[2] 20 of 2005.

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7.4. A proposal for future studies

Future studies can add to this, thus empirically exploring indigenous people's perspectives on how they think indigenous knowledge should be protected. Furthermore, a future study could explore ways to harmonise a number of distinct legal frameworks to develop a comprehensive African framework for protecting indigenous knowledge, thus, strengthening the quest to protect African indigenous knowledge systems. With the recent adoption of the WIPO treaty on IP and indigenous knowledge, future research could examine the Treaty's suitability in safeguarding indigenous knowledge internationally.

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