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For further information on UNCTAD's BioTrade Initiative, please visit <https://unctad.org/biotrade> or contact the BioTrade team at biotrade@unctad.org.

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Acronyms and abbreviations

AfCFTA	African Continental Free Trade Area
AFRAC	African Accreditation Cooperation
ARIPO	African Regional Intellectual Property Organization
ARSO	African Organization for Standardization
BIAT	Boosting Intra-Africa Trade
BIT	bilateral investment treaty
CAC	Codex Alimentarius Commission
CBD	Convention on Biological Diversity
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
EAC	East African Community
ECOWAS	Economic Community of West African States
FDI	foreign direct investment
FTA	free trade area
GATS	General Agreement on Trade in Services
GATT	General Agreement on Tariffs and Trade
GDP	gross domestic product
GISA	Continental Strategy for Geographical Indications in Africa 2018–2023
HS	Harmonized Commodity Description and Coding System
IGC	Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore (WIPO)
IIA	international investment agreement
ILO	International Labour Organization
IPPC	International Plant Protection Convention
IPRs	intellectual property rights
ITPGRFA	International Treaty on Plant Genetic Resources for Food and Agriculture
LDC	least developed country
NTB	non-tariff barrier
NTM	non-tariff measure
OAPI	African Intellectual Property Organization
OAU	Organization of African Unity
OIE	International Office of Epizootics
PAIC	Pan-African Investment Code
PAIPO	Pan-African Intellectual Property Organization
P&C	Principles and Criteria (of BioTrade)
PPM	processes and production methods
PVP	plant variety protection
RTA	regional trade agreement
SACU	Southern African Customs Union
SADC	Southern African Development Community
SDG	Sustainable Development Goal
SPS	sanitary and phytosanitary
TBT	technical barriers to trade
TFA	Trade Facilitation Agreement
TRIPS	trade-related aspects of intellectual property rights
UEBT	Union for Ethical BioTrade
UNCTAD	United Nations Conference on Trade and Development
UNESCO	United Nations Educational, Scientific and Cultural Organization
WIPO	World Intellectual Property Organization
WTO	World Trade Organization

Executive Summary

On 5 December 2020, the African Union Heads of States and Government decided to launch trade¹ in goods under the African Continental Free Trade Area (AfCFTA) on 1 January 2021. On the basis of the reciprocal offers already extended and the State Party's "customs-readiness" during phase I negotiations, this interim arrangement will continue while Rules of Origin (RoO) and tariff concessions negotiations are expected to be concluded in Q2 2021; phase II negotiations to adopt protocols on competition policy, investment and intellectual property rights (IPRs) are currently underway (Tralac, 2021).

This study investigates the nexus between trade in biodiversity, specifically on the legal and sustainable trade of biodiversity-based goods and services (including BioTrade), and the existing commitments under the framework of the AfCFTA. It seeks to identify potential entry points to enable legal and sustainable trade in biodiversity/BioTrade to support AfCFTA through future commitments, including in market access, services, investment, intellectual property rights (IPR), and competition policy. While sustainable socioeconomic development is one of the general objectives of the AfCFTA, the link between trade and environment was not fully developed under commitments negotiated up to December 2020. In particular, the content needed to address sustainability had not yet been fully achieved. The AfCFTA Agreement would benefit from the inclusion of sustainable development considerations into the protocols being negotiated in phase II,² as well as from the introduction of a specific protocol on trade and environment, with BioTrade as one of its components. This study presents short- and longer-term recommendations with a view to transform the AfCFTA Agreement into an enabler of legal and sustainable trade in biodiversity/BioTrade as a key driver for development in Africa.

BioTrade is understood as activities related to the collection, production, transformation and commercialization of goods and services derived from biodiversity (genetic resources, species and ecosystems) under environmental, social and economic sustainability criteria known as the BioTrade Principles and Criteria (P&C) (UNCTAD, 2020a). BioTrade activities have been implemented in over 25 countries in Africa by partners and practitioners in the personal care and food industries, who produce and trade products as diverse as argan oil, baobab pulp, honey, marula oil and shea butter.

The COVID-19 pandemic and the ensuing economic crisis are undermining prospects for global growth and damaging fast-growing African economies. In this context, sustained actions are needed to help African countries 'build forward better' by establishing a green development pathway (UNECA, 2020, p.4).

The pandemic has had negative impacts on the economic use of nature-based products and services. Many biodiversity-based sectors, such as ecotourism in coastal and protected areas, have been greatly affected. Policymakers see an opportunity to decouple growth from environmental degradation and invest in green industries as part of sustainable recovery strategies. Such investments can build on and embed shifts in human behavior already under way. Fast-track green policies could include natural capital spending through afforestation, expanding parkland, and enhancing rural ecosystems (UNCTAD, 2020b, p.96).

The most difficult aspect of a green economic recovery will be orchestrating a just transition for those impacted by a shift away from unsustainable practices or industries. As African countries move towards economic recovery, they can identify where the activities and jobs of the future may be, and focus on these opportunities, including in biodiversity-based solutions like BioTrade (UNCTAD, 2020b, p.104). The latter is particularly relevant as many African countries have a comparative advantage in biological resources, and a majority of the African population depends directly on biodiversity and ecosystem services for their livelihoods. Africa has the opportunity to use the historic AfCFTA Agreement to achieve a continental-wide economic recovery and create more sustainable, resilient and inclusive societies, thus contributing to achieving the goals of the African Union's Agenda 2063 – the Africa We Want. As an immediate step, parties to the Agreement Establishing the AfCFTA can start the implementation phase in 2021 with a focus on adhering to existing commitments in an environment-friendly way, so that Africa can produce more sustainably, engage in trade-related activities that promote both economic recovery and environmental sustainability, and chart a clear path towards a greener transition (Thomson Reuters Foundation News, 2020).

Trade in goods

The AfCFTA Protocol on Trade in Goods aims to boost intra-African merchandise trade through several means. The first is the progressive elimination of tariffs and non-tariff barriers (NTBs). To realize the benefits of this first aim, the protocol seeks enhanced efficiency of customs procedures, trade facilitation and transit. It also aims to enhance cooperation on technical barriers to trade and sanitary and phytosanitary measures. The intended result is the development and promotion of regional and continental value chains, and enhanced socioeconomic development, diversification and industrialisation across Africa. Special efforts are needed to liberalize trade in environmental goods to spearhead efforts on improving environmental conservation and sustainable use practices.

Although the Protocol on Trade in Goods is in place, the completion of phase I negotiations on tariff commitments and rules of origin is urgently needed (UNECA et al., 2019, p.xii). In developing their tariff proposals, AfCFTA members should reflect on how to enable legal and sustainable trade in biodiversity/BioTrade and support the creation of regional and continental biodiversity-based value chains through targeted tariff reductions. The work of the United Nations Conference on Trade and Development (UNCTAD) on BioTrade-relevant codes of the Harmonized Commodity Description and Coding System (HS)³ could contribute to the identification of tariff lines for this purpose. In addition, cooperation on developing standards appropriate to the African context can be pursued through African institutions, including the African Accreditation Cooperation (AFRAC) or the African Organization for Standardization (ARSO), to simplify sanitary and phytosanitary requirements, and reduce technical barriers to trade.

With appropriate tariff reductions and cooperation towards the elimination of NTBs, the implementation of trade facilitation measures – like an NTB reporting mechanism or a simplified trade regime for small traders and capacity-building can be used to their full extent to increase intra-African flows of biodiversity/BioTrade goods and create sustainable regional and continental value chains (UNECA et al., 2019, p.xiii), thereby supporting enhanced socioeconomic development, diversification and industrialization across Africa.

Trade in services

Continental integration of markets for services can contribute significantly to economic activity, as services make a sizable contribution to gross domestic product (GDP) growth in Africa (UNECA et al., 2019, p.xiii). Liberalizing trade in environmental services of relevance to BioTrade, such as business and finance services, would facilitate the creation of BioTrade businesses, further enable the emergence of service providers and related projects. Given the emphasis placed in the Agenda 2063 on growing tourism and ecotourism, and the focus on reversing the loss of forests, biodiversity and natural habitats loss, governments should ensure that specific attention is devoted to facilitating the provision, regulation and delivery of services that enable the development of services, such as ecotourism and REDD+ projects. The AfCFTA Protocol on Trade in Services provides a sound basis for capacity development activities for the cross-border provision of services, which should be pursued to maximize the benefits resulting from the specific commitments negotiated on trade in services.

Intellectual property rights (IPRs)

An intellectual property protocol will provide an opportunity to advance a continental approach to intellectual property that responds to the United Nations' 2030 Agenda for Sustainable Development and the African Union's Agenda 2063. Noting that regional preferential agreements are not exempt from the terms of the Agreement on Trade-related Aspects of Intellectual Property Rights (TRIPS Agreement) of the World Trade Organization (WTO),⁴ a viable AfCFTA protocol could provide clarity on a series of issues relevant to BioTrade. First, it could provide guiding principles for national intellectual property laws and policies, and engagement in relevant international treaties. Second, a protocol could provide minimum requirements on the protection of traditional knowledge, genetic resources, and cultural expressions, while allowing for flexibility to adapt domestic laws and policies in relation to developments and outcomes of negotiations within the World Intellectual Property Organization (WIPO). Third, a protocol could establish norms for the protection of geographical indications through either a *sui generis* system, or through certification and collective marks. Fourth, a protocol could establish minimum standards for plant variety protection, including on its availability, scope, exceptions, and especially the protection

of traditional and new farmers' varieties. Fifth, a protocol could address matters related to intangible cultural heritage. Negotiations over IPRs will be highly controversial and, in consequence, should be open, transparent and inclusive. This could include broad public consultations and debates, as well as iterative capacity-building for key stakeholders (UNECA et al., 2019).

Investment

The AfCFTA offers an important opportunity to increase investment in areas relevant to legal and sustainable trade in biodiversity/BioTrade, such as those supporting the development of new and value-added biodiversity-based goods and services under BioTrade P&C, as well as targeting activities such as nature-based tourism (e.g., ecotourism) and forestry-based carbon credit (e.g., REDD+) activities. Moving forward, the Pan-African Investment Code (PAIC) and other instruments discussed in this study establish a sound basis for the development of an investment protocol that strikes a better balance between investor protection and the rights of governments to regulate in the public interest for sustainable development.

Competition policy

Competition policy will be an important driver of growth of competitive markets in Africa by working to address prevalent cross-border anti-competitive practices (UNECA et al., 2019, p.xv). The competition protocol to be agreed as part of the second phase of the AfCFTA negotiation process should cover the main substantive competition areas, embrace consumer protection in a dedicated chapter, and develop enforcement arrangements – whether a supranational competition authority, a competition cooperation framework, or a sequential approach in which a supranational authority follows the cooperation framework. The relationship between the AfCFTA investment and competition protocols will need to be considered, which could be based on the PAIC's call for member States to promote, maintain and encourage competition, prohibit anti-competitive investment conduct, and adopt clear and transparent competition rules (UNECA et al., 2019).

Ensuring competition is particularly important for BioTrade due to the vital role played by micro, small and medium-sized enterprises (MSME) in biodiversity-based sectors.

Way forward

The table below summarizes key opportunities and challenges for BioTrade and the trade of biodiversity-based products and services, in the context of the AfCFTA Agreement.

Key recommendation

- Specific trade and environment considerations and recommendations, including on the legal and sustainable trade of biodiversity-based products and services, including BioTrade, need to be made explicit in subsequent phases of the economic integration process. This would enable African countries to seize the opportunities for local value addition while capturing the growing consumer preference for biodiversity-friendly products and services.

Opportunities

Short/medium term:

- An institutional/administrative arrangement to examine, better comprehend and further develop the relationship between trade, environment and sustainable development in Africa could be established and run in parallel to the finalization of phases I, II and III of the AfCFTA negotiation process.
- Tariff reductions will be critically important to enabling and promoting the trade of sustainably produced

goods and services with local value addition, such as BioTrade products and services, and could be informed by UNCTAD's work on BioTrade-relevant HS codes as well as by the work carried out by UNCTAD's Trade Analysis Branch.

- The reduction of inter-African NTBs, including through continental standards that are responsive to the African context, would also contribute to the promotion of value-added products and services, including those aligned with the BioTrade P&C.
- Implementation and effective use of the AfCFTA trade facilitation provisions found in the Protocol on Trade in Goods and the Trade Facilitation Annex could enable further trade in biodiversity-based products and BioTrade in particular. Specific support for MSMEs could have a direct positive impact on BioTrade value chains, as they are among the ones that face the biggest hurdles when exporting.
- Developing capacity on the application of voluntary sustainability standards and guidelines (including on BioTrade), allowing African producers to access higher value global markets.
- The intellectual property protocol provides an opportunity to establish basic principles on a set of IPRs, and potentially on related biodiversity and traditional knowledge matters, that can be favourable to African countries and actors involved in the trade of sustainably sourced products, including those aligned with BioTrade and its Principles and Criteria.
- Negotiations on intellectual property should be expedited and a new focus placed on bringing the Pan-African Intellectual Property Organization to life, as it is already constitutionally tasked with creating and harmonizing intellectual property standards in the African Union.
- Progressively liberalizing business and financial services relevant to the environment could help MSMEs and SMEs, as well as large enterprises, to gain access to expertise and capital from other African countries to develop BioTrade activities and regional value chains.

Longer term:

- Calling for a mandate to develop an additional legal instrument on cooperation on trade, environment and sustainable development building for example on the African Nature Convention and African Union Guidelines for the Coordinated Implementation of the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Resulting from their Utilization. Such an instrument could specifically address and enable trade in biological and genetic resources, among others. The nexus between trade and environment, including BioTrade, should also be incorporated into existing instruments and those under negotiation.

Challenges

- Unharmonized or burdensome non-tariff measures (NTMs) can dramatically restrict market entry, limiting the ability of countries to reap economic, social and environmental gains from trade in sustainably produced biodiversity-based goods and services. There is a need for an identification exercise on key NTMs affecting biodiversity-based products and services, and BioTrade in particular, so that these may be addressed by novel mechanisms within the framework of the AfCFTA Agreement.
- The IPRs institutional and legal landscape in Africa is complex, and IPRs issues may be challenging to negotiate at a continental level.
- The provision of cross-border business and financial services is very complex in Africa and further analysis is also needed if countries aim to seize the development opportunities generated by the trade of legally and sustainably produced biodiversity-based products and services.

1. INTRODUCTION

Africa is one of the world's most biodiverse regions,⁵ and many African countries have a comparative advantage in the abundance and variety of biological resources. Furthermore, a majority of the population in Africa depends directly upon biodiversity and ecosystem services for their food and livelihoods,⁶ whereas natural capital accounts for between 30 per cent and 50 per cent of the total wealth of most African countries. The creation of the African Continental Free Trade Area (AfCFTA) through the entry into force of the Agreement Establishing the AfCFTA (AfCFTA Agreement), on 30 May 2019, presents important opportunities for boosting intra-African trade and promoting development that is environmentally, socially and economically sustainable. The AfCFTA is central to achieving the continental integration envisioned in the Organization for African Unity's Treaty Establishing the African Economic Community (Abuja Treaty) and the African Union's Agenda 2063: The Africa We Want (Agenda 2063). It is also expected to drive the economic transformation needed to foster the sustained and inclusive growth required to help African countries to implement the 2030 Agenda for Sustainable Development (Agenda 2030) and achieve the Sustainable Development Goals (SDGs) (UNCTAD, 2016a).

The AfCFTA is pivotal to Africa's development strategy and ambitions. Concerted efforts must be made to ensure that the instruments still under negotiation under the AfCFTA framework deliver a comprehensive set of agreements that boosts intra-African trade, using the opportunity to include features and policies

that serve the needs of all African countries. Supplying growing global consumer demand for natural, healthy, environmentally friendly, just and ethical products and services offers a new avenue to strengthening the legal and sustainable production, trade and consumption of biodiversity-based goods and services. A targeted approach under the AfCFTA could thus foster intra-African trade in biological resources and derived value added products and services, while conserving globally significant biodiversity, furthering mitigation of and adaptation to climate change, and improving livelihoods. (UNCTAD, 2016a).

This study reviews the potential implications of, and opportunities presented by the AfCFTA for legal and sustainable trade in biodiversity/BioTrade and access and benefit-sharing (ABS). Section 1 explores the concept of BioTrade, addresses the substance of the updated BioTrade Principles and Criteria (P&C) published in 2020 by the United Nations Conference on Trade and Development (UNCTAD), and illustrates how BioTrade has been implemented in Africa. Section 2 presents a historical overview of African trade integration, beginning with the creation of the Organization for African Unity (OAU) in 1963 and concluding with the entry into force of the AfCFTA Agreement in 2019. Section 3 provides a general overview of the broader links between trade and environment, trade in goods, including non-tariff barriers (NTBs), trade in services, intellectual property rights (IPRs), competition policy, and cooperation. The study concludes by identifying potential points for engagement, as implementation is still in the very early stages, and negotiations on protocols and additional annexes continue.

2. BIOTRADE AND THE BIOTRADE PRINCIPLES AND CRITERIA

BioTrade is defined as “activities related to the collection or production, transformation, and commercialization of goods and services derived from biodiversity (genetic resources, species and ecosystems) according to a set of guidelines for environmental, social and economic sustainability, known as the BioTrade Principles and Criteria (P&C)” (UNCTAD, 2020a). It applies to terrestrial, marine and other aquatic biodiversity. BioTrade has actively contributed to achieving the Strategic Plan for Biodiversity 2011–2020 of the Convention on Biological Diversity (CBD) and its Aichi Biodiversity Targets (CBD, 2010a). It also contributes to targets under SDGs 1, 2, 3, 5, 8, 9, 10, 12, 13, 14, 15, 16 and 17 (UNCTAD et al., 2019, p.6).

Since 1996, the UNCTAD BioTrade Initiative has been contributing to the conservation and sustainable use of biodiversity through the promotion of trade and investment in biodiversity-based products and services to further sustainable development and poverty alleviation (UNCTAD, 2017a). UNCTAD’s important role in this field has been reaffirmed several times over the past decade, including at the 14th session of the UNCTAD quadrennial conference (UNCTAD14) in 2016, where 195 member States recalled the need for UNCTAD to “[p]romote sustainable trade in biodiversity products and services to strengthen the sustainability of biodiversity and foster sustainable growth, in close cooperation with other relevant agencies where appropriate” (UNCTAD, 2016b, para. 76(q)).

2.1. The BioTrade Principles and Criteria

The BioTrade P&C are the core conceptual framework supporting BioTrade activities implemented since 2007, and its revision was completed in 2020. The updated P&C take into account developments in international law and policy for over 13 years, such as Agenda 2030 and the SDGs (particularly SDG 15 but also SDGs 12, 14 and 17), the CBD’s Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization (Nagoya Protocol), and the Paris Agreement within the United Nations Framework Convention on Climate Change (UNFCCC) (UNCTAD, 2020a). The experiences and lessons learned in the implementation of the BioTrade P&C to develop biodiversity-based sectors, value chains and companies in Africa, Asia, Europe and the Americas

have also been considered in this update. The BioTrade P&C through its seven principles and 25 criteria (see Table 1) provide guidelines for developing trade in terrestrial, marine and other aquatic biodiversity-based products and services that promote the conservation of biodiversity through sustainable commercial use in a variety of sectors (UNCTAD, 2020a).⁷ They are aligned with and supportive of the objectives of the CBD, Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and other multilateral environmental agreements (MEAs), as well as the outcomes of international sustainable development processes.

The BioTrade Initiative and its partners implement the BioTrade P&C using four approaches: 1) a value chain approach; 2) an adaptive management approach; 3) an ecosystem approach; and 4) a sustainable livelihood approach (UNCTAD, 2017a). Of these approaches, the value chain approach is of particular interest in the context of African trade integration and maximizing the benefits of BioTrade in the implementation of the AfCFTA Agreement. In the BioTrade P&C, a value chain is defined as:

“[r]elationships established between actors involved directly and indirectly in a productive activity with the aim of adding value in each stage of the value chain... A value chain involves alliances among producers, processors, distributors, traders, regulatory and support institutions, whose common starting point is the understanding that there is a market for their products and services. They then set out a joint vision to identify mutual needs and work cooperatively in the achievement of goals. They are willing to share the associated risks and benefits, and invest their time, energy, and resources into realizing these goals.” (UNCTAD, 2020a, p.2).

In this context, the strengthening of value chains is “a critical element in facilitating good practices related to the sustainable use and conservation of biodiversity and in promoting the equitable sharing of environmental, social and economic benefits among value-chain participants” (UNCTAD, 2020a).

With the AfCFTA Agreement in force, regional value chains based on biological resources can be developed or strengthened, offering opportunities to countries in Africa to climb up the value chain by using regional advantages to boost competitiveness, diversify product supply and export products with higher value added (UNCTAD, 2018, p.22). Exports

of goods and services related to biodiversity to other African countries would also face no or minimal tariff barriers depending on the case, and lower financial and technical barriers than those faced by new products entering into the European, American, Asian, or other overseas markets.⁸ These factors create an interesting value proposition for further developing BioTrade in Africa, but negotiations on tariffs and rules of origin are still ongoing and must be concluded before the promised value can be generated.

2.2. BioTrade in Africa⁹

Since early 2000's, BioTrade activities are implemented in Africa by partners, such as the Union for Ethical BioTrade (UEBT), the ABS Capacity Development Initiative and PhytoTrade Africa, in the following countries: Botswana, Burkina Faso, Cameroon, Chad, the Comoros, Côte d'Ivoire, Egypt, Eswatini, Ghana, Kenya, Lesotho, Madagascar, Malawi, Mali, Morocco, Mozambique, Namibia, Nigeria, Senegal, South Africa, Sudan, the United Republic of Tanzania,

Table 1. The BioTrade Principles and Criteria (P&C) as updated in 2020

No.	Principles	No.	Criteria
1.	Conservation of biodiversity	1.1	Activities contribute to maintaining, restoring or enhancing biodiversity, including ecosystems, ecological processes, natural habitats, and species, particularly threatened or endangered species.
		1.2	Genetic variability of flora, fauna and micro-organisms (for use and conservation) is maintained, restored, or promoted.
		1.3	Activities are aligned with national, regional, and/or local plans for sustainable management, conservation, and restoration of biodiversity, in coordination with the relevant authorities and actors involved.
2.	Sustainable use of biodiversity	2.1	The use of biodiversity is sustainable, based on adaptive management practices that advance the long-term viability of the biological resources used, and supported by training of workers and producers on good collection, harvesting, cultivation, breeding or sustainable tourism practices.
		2.2	Measures are taken to prevent or mitigate negative environmental impacts of the activities, including in relation to flora and fauna; soil, air and water quality; the global climate; use of agrochemicals; pollution and waste disposal; and energy consumption.
		2.3	Activities contribute to measures that strengthen resilience and the adaptive capacity of species and ecosystems to climate-related hazards and natural disasters.
3.	Fair and equitable sharing of benefits derived from the use of biodiversity	3.1	Activities are agreed upon and undertaken based on transparency, dialogue, and long-term partnerships between all organizations involved in the supply chain.
		3.2	Prices take into account the costs of value chain activities (e.g., production, investment, research and development, marketing, commercialization, etc.) according to these P&C and allow for a profit margin.
		3.3	Activities contribute to sustainable local development, as defined by producers and their local communities.
		3.4	Activities comply with applicable legal requirements and/or relevant contractual arrangements on access to biodiversity, including biological and genetic resources, their derivatives and associated traditional knowledge, and on the fair and equitable sharing of benefits derived from their utilization.
		3.5	In cases where there are no applicable legal requirements, utilization of genetic resources and associated traditional knowledge takes place with prior informed consent and mutually agreed terms.
4.	Socio-economic sustainability (productive, financial and market management)	4.1	The organization demonstrates the integration of these P&C in its business and supply chain management.
		4.2	The organization has a quality management system in line with its market requirements.
		4.3	A system is in place to allow for supply chain traceability up to the country of origin and/or the place of collection, harvesting and/or cultivation.

5.	Compliance with national and international legislation	5.1	The organization complies with applicable legal and administrative requirements at local, national, and regional levels. If measures required by local, national or regional legislation are less strict than those required by these P&C, the organization meets the stricter requirements.
		5.2	Activities respect the principles and obligations of relevant international agreements and instruments, such as the CBD, the Nagoya Protocol, the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA), Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), Bonn Convention on Migratory Species (CMS), the International Labour Organization (ILO) Conventions, the United Nations Declaration on the Rights of Indigenous Peoples, and the United Nations Declaration on the Rights of Peasants and Other People Working in Rural Areas.
		5.3	When dealing with marine and coastal biodiversity, activities respect the principles and obligations established under the United Nations Convention on Law of the Sea (UNCLOS), the United Nations Fish Stocks Agreement (UNFSA), and any subsequent instrument on biodiversity in areas beyond national jurisdiction, as well as relevant conventions and instruments adopted under UNCTAD, the Food and Agricultural Organization of the United Nations (FAO), UN Environment, the International Maritime Organization (IMO) and ILO.
		5.4	The organization gathers and maintains information and records required to ensure the legality of access to and use of biodiversity, such as the country of origin, geographical location of capture or introduction from the sea, existence of applicable laws or regulations, and relevant permits and certificates.
6.	Respect for the rights of actors involved in BioTrade activities	6.1	The organization respects fundamental human rights, in keeping with the United Nations Guiding Principles on Business and Human Rights and relevant ILO Conventions.
		6.2	The organization respects worker rights, provides adequate working conditions, and prevents any negative impact on the health and safety of workers, in accordance with national legislation.
		6.3	The organization respects the rights of indigenous peoples and local communities, women, children, and other vulnerable groups involved in BioTrade activities, in accordance with national legislation and the United Nations Declaration on the Rights of Indigenous Peoples.
7.	Clarity on right to use and access to natural resources	7.1	The organization uses natural resources in compliance with all relevant laws and regulations and preventing any negative impacts on the health, safety and wellbeing of surrounding populations.
		7.2	In cases where required by international, national, local or customary law, as well as criterion 3.5, the organization accesses natural resources and associated traditional knowledge with prior informed consent of, and subject to mutually agreed terms with, the party that provides them.
		7.3	The organization respects the rights of indigenous peoples and local communities over land, natural resources, and associated traditional knowledge in accordance with national legislation and the United Nations Declaration on the Rights of Indigenous Peoples.
		7.4	The organization does not threaten the food diversity or food security of producers and their local communities.

Togo, Tunisia, Uganda, Zambia, and Zimbabwe. Through these partners, BioTrade P&C and/or related guidelines and standards such as the standard of the Union for Ethical BioTrade (UEBT) have been applied in various subsectors of the personal care and food industries, such as:¹⁰

- Marula (*Sclerocarya birrea subsp. caffra*): fruit and seed oil, and used in personal care products
- Baobab (*Adansonia digitate*): fruit (pulp), powder, seed oil, and used in personal care products
- Kalahari melon (*Citrullus lanatus*): seed oil
- Mongongo (*Schinziophyton rautanenii*): seed oil and used in personal care products
- African sour plum (*Ximenia americana*): seed oil

- Mafurra (*Trichilia emetic*): seed oil and butter
- Namibian myrrh (*Commiphora wildii*): gums and resins
- Rose geranium (*Pelargonium graveolens*): essential oil
- Helichrysum (*Helichrysum spp.*): essential oil
- Lippia (*Lippia javanica*): essential oil
- Buchu (*Agathosma betulina, A. crenulate*): essential oil
- Cape chamomile (*Eriosephalus punctulatus*): essential oil
- Aloe ferox: gel, juice, crystals and powder
- *Bulbine frutescens*: gel
- Honeybush (*Cyclopia intermedia, C. genistoides*): tea
- Resurrection bush (*Myrothamnus flabellifolius*): tea
- Moringa (*Moringa oleifera*): essential oil, powder, and used in personal care products
- Shea trees (*Butyrospermum parkii*): shea butter
- Clanwilliam cedar (*Widdringtonia cedarbergensis*): fragrance
- Honey: honey and beeswax
- Argan (*Argania spinosa*): oil

Box 1 below presents an illustrative list of some successful BioTrade experiences in Africa in order to its approach and value in practice.

Box 1. BioTrade experiences in Africa¹¹

Eco-Micaia Ltd., a BioTrade MSME working with honey, other bee products and baobab in **Mozambique**, aims to enable people living in biodiversity-rich but threatened areas to have access to livelihood opportunities by creating value out of existing biodiversity. Through its honey value chain, Eco-Micaia has supported local livelihoods and biodiversity conservation in the buffer zone of the Chimanimani National Reserve, a critically important area for biodiversity struggling with increased deforestation. The company's purchases of honey from local producers increased more than tenfold in four years, from 2.4 tons in 2014 to 27 tons in 2018. Reserve authorities have confirmed a significant reduction in the frequency and scale of uncontrolled fires in the beekeeping areas where Eco-Micaia operates.

The Eudafano Women's Co-operative (EWC) – a women-led cooperative in **Namibia** – successfully produces ingredients derived from marula and Kalahari melon seeds for the domestic and international cosmetics industries. Through its activities, implemented under the BioTrade P&C, EWC benefits around 2,500 women (and their communities) working in 27 associations. EWC members' revenues increased five-fold between 2012 and 2015 and continued to increase thereafter. In 2020 for example, sales from marula kernels fetched the cooperative's members about \$158,000, a 14 per cent jump from 2019, despite the challenges brought on by the COVID-19 pandemic.

Kalahari Natural Oils, a BioTrade practitioner in **Zambia**, develops and trades value-added products, such as oils derived from Mongongo and Ximenia, which have benefited over 200 suppliers grouped into 7 associations. These value-added products are sold in Europe, the United States of America, and Asia.

BioInnovation Africa (BIA) project seeks to promote European-Africa business partnerships for biodiversity conservation. It works in 4 countries - Cameroon, Madagascar, Namibia and South Africa. The project is being implemented with 18 European partners working in 20 value chains with more than 10 SMEs and support organisation. Monitoring so far indicates the facilitation of 8,000 new or improved jobs and covering 100,000 hectares in improved biodiversity management.

Access and Benefit-sharing compliant biotrade in South(ern) Africa (ABioSA) project aims to create a high-growth jobs-rich and innovative biotrade¹² sector that complies with international and domestic ABS regulations. It supports sustainable development goals and contributes to the livelihoods of rural people and the productive use of South(ern) Africa's plant biodiversity. It aims to create permanent and seasonal jobs in biotrade value chains, while substantially boosting the value generated from biotrade products from the region.

2.3. BioTrade and the AfCFTA¹³

One of the main objectives of the AfCFTA Agreement is to create a single continental market for goods and services, including the free movement of persons and capital. This is expected to be achieved, among others, through better harmonization and coordination of trade liberalization and facilitation instruments (Tralac, 2020) across the many overlapping regional economic communities (RECs) and across Africa in general. The AfCFTA will cover a market of about 1.2 billion people and a gross domestic product (GDP) of \$2.5 trillion, across the 55 member States of the African Union (ATPC, 2018).

As of December 2020, the AfCFTA Agreement reflected a traditional model of trade integration based on goods and services, market access rules, and related regulations, in a first phase. The AfCFTA will play a significant role in reducing and phasing out intra-African tariffs, which were estimated to average 6.1 per cent before the agreement (ATPC, 2018). Lower intra-African tariffs harmonized non-tariff measures (NTMs), and clear and flexible rules of origin can make a significant contribution to further integration of regional value chains, including those creating biodiversity-based products and services.

Nevertheless, a great majority of African countries are classified as resource-rich, and tariffs on raw materials are generally low, meaning that there is a limited amount that the AfCFTA can do to directly promote the export of primary resources. However, by lowering intra-African tariffs on intermediate and final goods, the AfCFTA is expected to create additional opportunities for adding value to natural resources and raw materials, and for diversifying into new business areas. In particular, it could help boost trade in biodiversity-based local intermediary products and, as a consequence, final biodiversity goods for domestic consumption and exports. Furthermore, the AfCFTA is expected to particularly benefit landlocked countries, which notoriously face higher costs of freight and unpredictable transit times, by including provisions on trade facilitation, transit and customs cooperation, in addition to tariff reduction. The key features of the AfCFTA are summarized in Table 2.

The basic agreement is complemented by a protocol on dispute settlement¹⁴ and negotiations of a built-in agenda focusing on IPRs, investment, competition policy and e-commerce. Furthermore, there have been calls to support the implementation of trade facilitation

measures under the AfCFTA (UNECA et al., 2019), such as investments in standards harmonization and infrastructure, as well as the introduction of a simplified trade regime to benefit small and informal traders, among other things, and the establishment of coherent preferential rules of origin (UNCTAD, 2019a) to simplify and strengthen regional value chains and, ultimately, intra-African trade.

There are, therefore, bases for an increased scrutiny into the reality of the above-mentioned value chains to determine whether there are already visible effects of the entry into effectiveness of the AfCFTA Agreement, and if there is evidence of the capacity of the AfCFTA to deliver and bring economic benefits to the actors involved in African regional value chains. The marula value chain, in particular, has the potential to be an illustrative case study on the implications of the AfCFTA for BioTrade. Firstly, it is a rich natural transboundary resource spanning several countries in Southern Africa with highly varied socioeconomic realities, such as Botswana, Namibia, South Africa and Zimbabwe, among others. An analysis of this sector would allow an accounting for the implications of the AfCFTA across a wide distribution of different institutional and infrastructural landscapes. Secondly, due to its broad geographical distribution and uses, the value chain has the potential to stimulate rural development, job creation and new export markets with potential spin-off benefits in technology, innovation, small business as well as skill development. Thirdly, products of the marula fruit have applications in several industries, such as the food industry, the cosmetics industry or the medicinal industry, significantly broadening the scope of potential findings. Finally, the marula sector benefits from efforts to improve sustainability along its value chain, in particular on fair and equitable benefit-sharing, from the ABS Capacity Development Initiative and the UEFT standard (ABS Capacity Development Initiative, 2020).

The baobab value chain also offers a good opportunity for an in-depth case study for similar reasons. The baobab tree is widely spread across semi-arid regions of sub-Saharan Africa, spanning over a number of different countries, and is valued by local communities for its edible pulp, leaves and seeds, as well as a source of fibre, fodder and medicine. In addition, the numerous uses of baobab products mean that it has high potential for commercialization in regions such as Southern Africa, where local demand for subsistence reasons has diminished (Venter and Witkowski, 2013, p.159). Furthermore, demand for baobab products is also increasing outside of the African continent,

Table 2. Key features of the AfCFTA Agreement

Agreement Establishing the African Continental Free Trade Area	Protocol on Trade in Goods	Elimination of duties and quantitative restrictions on imports Imports shall be treated no less favourably than domestic products Elimination of non-tariff barriers Cooperation of customs authorities Trade facilitation and transit Trade remedies, protections for infant industries and general exceptions Cooperation over product standards and regulations Technical assistance, capacity-building and cooperation
	Protocol on Trade in Services	Transparency of service regulations Mutual recognition of standards, licensing and certification of services suppliers Progressive liberalization of services sectors Service suppliers shall be treated no less favourably than domestic suppliers in liberalized sectors Provision for general and security exceptions
	Protocol on Dispute Settlement	Modelled on the WTO Dispute settlement system Dispute Settlement Body Appellate Body
	Phase II negotiations	Intellectual property rights Investment Competition policies
	Phase III negotiations	E-commerce

Source: ATPC (2018).

where they are marketed as a superfood, thanks to their nutritional characteristics, most notably in Europe—where more than 300 baobab products were identified (Gebauer et al., 2014, p.9).

Nevertheless, regardless of the sector, it will be important to evaluate the impact of the AfCFTA along a broad selection of indicators, covering as many implications as possible. For instance, attention could be given to potential improvements in the resilience to external price shocks, especially for raw commodities that are notoriously vulnerable, as well as to increases in diversification for the products under focus, potentially servicing additional value chains

and industries. Furthermore, it should be evaluated whether the AfCFTA improves access to an additional number of markets—both intra- and extra-African—or if there are increases in the commercialization and trade of BioTrade products and services.

In this light, the AfCFTA—through improved regulatory frameworks, decreasing barriers to trade and lower red tape costs—could be expected to provide a decrease in customs clearance times and logistics, as well as diminishing informal cross-border trade. Finally, a number of socioeconomic indicators for actors and stakeholders of the value chains under scrutiny should be considered, such as the poverty rate, food security, employment, income and livelihoods more broadly.

3. AFRICAN TRADE INTEGRATION

3.1. The Organization for African Unity and the Abuja Treaty

Regional trade integration has long been a strategic objective for Africa, beginning with the creation of the OAU in 1963, and the creation of numerous RECs. The goal of creating a continental economic community was boosted in 1991 with the adoption of the Abuja Treaty, which set out an incremental approach to regional integration in Africa, “with the creation of the [RECs] and setting out a path for the creation of an African Economic Community by 2028” (Ismail, 2017, p.139). The first step was the creation of regional free trade areas, followed by customs unions, common markets and monetary unions (Ismail, 2017, p.139).

3.2. Achieving the objective of trade integration

Efforts on trade integration intensified with the adoption of the Constitutive Act of the African Union in 2000 (African Union, 2000), and the subsequent formation of the African Union in 2002 (replacing the OAU). The African Union’s main objectives include: 1) accelerating the political and socioeconomic integration of the continent (African Union, 2000 at art.3(c)); 2) promoting sustainable development at the economic, social and cultural levels as well as the integration of African economies (African Union, 2000 at art.3(j)); and 3) coordinating and harmonizing the policies between existing and future RECs for the gradual attainment of the objectives of African Union (African Union, 2000 at art.3(l)).¹⁵ After its establishment, the African Union decided to focus its first efforts on fostering continental economic integration through trade integration. Continental negotiations are very important for boosting pan-African trade as, despite some success in eliminating tariffs within RECs, the African market remains highly fragmented (UNCTAD, 2018).¹⁶ Furthermore, a complex patchwork of RECs exists, with nearly half of all African nations being members of at least two RECs, almost one-third of three, and several belong to four (Hoekman et al., 2017, p.ii4).

In order to further the creation of an African Economic Community by 2028, the 18th African Union Summit

of Heads of State and Government in 2012 adopted the Decision on Boosting Intra-Africa Trade and Fast Tracking the Continental Free Trade Area was adopted, which endorsed an approach aiming to create the AfCFTA by 2017, and endorsing the Action Plan for Boosting Intra-Africa Trade (BIAT) (African Union, 2011). The BIAT Action Plan identifies seven areas of cooperation, namely: 1) trade policy, 2) trade facilitation, 3) productive capacity, 4) trade-related infrastructure, 5) trade finance, 6) trade information, and 7) factor market integration (African Union and UNECA, 2012). Several of the areas of cooperation contain actions that are pertinent to BioTrade, such as “Boost intra-African trade in food products” (trade policy), “Promoting ‘Buy in Africa’ and ‘Made in Africa’” (trade policy), and “Encouraging investments/FDI through established frameworks for the strengthening of regional and continental complementarities, and the development of regional enterprises and value chains” (productive capacity) (African Union and UNECA, 2012).

Following the African Union’s 50th Anniversary Solemn Declaration in 2013 and the 2014 African Union Summit, both of which called for the acceleration of the establishment of the AfCFTA, it was decided at the 2015 African Union Summit to launch negotiations in order to integrate Africa’s markets “in line with the objectives and principles enunciated in the Abuja Treaty Establishing the African Economic Community” (African Union, 2015, para. 3). Phase I of the negotiations for the AfCFTA concluded with African leaders holding an Extraordinary Summit in March 2018 to present the AfCFTA Agreement for signature, alongside the Kigali Declaration.¹⁷ The AfCFTA Agreement entered into force on 30 May 2019, and has 36 State Parties as of 20 April 2021.¹⁸ Once ratified by all signatory countries, it will become the Regional Trade Agreement (RTA) with the greatest number of members globally, creating a single set of rules for trade and investment among virtually all African countries and providing legal certainty for businesses and investors through the harmonization of trade regimes. Furthermore, substantive negotiations under phase I are still ongoing. This includes issues on market access relating to tariffs, services, and rules of origin. Without them, the AfCFTA is limited in its potential to create new trade flows and boost intra-African trade.

The AfCFTA Agreement sets out to create a single market for goods and services and to expand intra-

Africa trade. Article 4 of the Agreement commits State parties to a series of actions to achieve this objective. These actions are 1) the progressive elimination of tariffs and NTBs to trade in goods; 2) the progressive liberalization of trade in services; 3) cooperation on investment, IPRs and competition policy; 4) cooperation on all trade-related areas; 5) cooperation on customs matters and the implementation of trade facilitation measures; 6) the establishment of a mechanism for the settlement of disputes concerning their rights and obligations; and 7) the establishment and maintenance of an institutional framework for the implementation and administration of the AfCFTA. Phase I of the negotiations focused on tariffs, trade in goods and services, and trade facilitation, while phase II will focus on, among other subjects, investment, intellectual property, and competition. The “development integration” approach is the foundation of the AfCFTA, which places emphasis on market integration, infrastructure development, and industrial development in order to boost intra-Africa trade and support the continental development imperative of sustainable economic growth. In addition to promoting intra-Africa trade, the AfCFTA has the potential to promote regional value chains (Siba and Sow, 2018). Phase III will address issues related to e-commerce. The opening of the continental market to African goods and services could increase intra-African trade significantly, and stimulate structural transformation in African countries, if Governments formulate and implement appropriate economic development policies linked to the AfCFTA (UNCTAD, 2018, p.1).

3.3. Agenda 2063 and trade integration¹⁹

Trade integration forms a key part of Agenda 2063 – the African Union’s integrated 50-year plan for Africa’s structural transformation and a shared strategic framework for inclusive growth and sustainable development that is linked to the SDGs.²⁰ Agenda 2063 contains three constituent parts: the vision for 2063, the transformation framework, and ‘making it happen’ (measures on implementation, monitoring and evaluation arrangements, financing, communication strategy and capacity for implementation). It is implemented through successive 10-year implementation plans, with a short-term emphasis on accelerating the implementation of key existing continental frameworks, key flagship programmes, and fast-tracking regional integration.

The vision of Agenda 2063 consists of seven aspirations and details on what achieving them would mean. This includes Aspiration 1 (a prosperous Africa based on inclusive growth and sustainable development) and Aspiration 2 (an integrated continent, politically united, based on the ideals of Pan-Africanism and the vision of Africa’s Renaissance). The former includes goals on transformed economies, modern agriculture, a blue/ocean economy for accelerated economic growth, and environmentally sustainable and climate-resilient economies and communities, while the latter includes goals on the development of key economic institutions and frameworks including the creation of the AfCFTA by 2017 and the African Common Market by 2025.

Goal 4 of Agenda 2063 on transformed economies contains four priority areas, all of which are related to trade integration: 1) sustainable and inclusive economic growth; 2) science, technology and innovation-driven manufacturing, industrialization and value addition; 3) economic diversification and resilience; and 4) tourism/hospitality. The African Union identifies Goal 4 as being linked to SDGs 8 and 9. BioTrade can contribute to Goal 4 by supporting countries diversify their economies by strengthening or developing new biodiversity-based sectors focused on the sustainable use of the resources and the equitable sharing of benefits among value chain actors, thus generating a more sustainable and inclusive growth. Goal 6 on leveraging the blue/ocean economy for accelerated economic growth contains one focal area where BioTrade can directly support through the sustainable use and trade of marine resources and contribute to sustainably develop the potential of Africa’s blue/ocean economy. The African Union identifies Goal 6 as being linked to SDG 14. Goal 7 on environmentally sustainable and climate resilient economies and communities contains focal areas that are particularly relevant for trade integration in the context of BioTrade, namely 1) sustainable natural resource management; 2) biodiversity conservation, genetic resources and ecosystems; 3) sustainable consumption and production patterns; and 4) climate resilience and natural disaster preparedness and prevention. Broadly speaking, Goal 7 aims for the sustainable management of Africa’s natural resources by 1) putting in place the sustainable management of its land, forest, freshwater and marine resources; 2) conserving biodiversity including forests, species, wildlife, wild and wetlands, genetic resources and ecosystems (terrestrial and marine) through the expansion and effective management of national parks and protected areas,

and the integration of all dimensions of biodiversity into the development process; and 3) tackling the impacts of climate change through adaptation and appropriate mitigation measures. For these priority areas under Goal 7, BioTrade through its implementation of its P&C contributes to the development of sectors, value chains and businesses that sustainably use and conserve biodiversity, are climate resilient and implement measures to prevent or mitigate negative environmental impacts. The African Union identifies Goal 7 as being linked to SDGs 13 and 15.

The development of the AfCFTA fits into the objective of establishing a United Africa, and the focal area of developing the relevant financial frameworks and institutions. This involves the Key Agenda 2063 Flagship programme on fast-tracking the establishment of the

AfCFTA by 2017, aiming to “significantly accelerate growth of intra-African trade and use trade more effectively as an engine of growth and sustainable development. It includes doubling of intra-Africa trade by 2022.” This programme forms one of the bases for the First 10-Year Implementation Plan of Agenda 2063. Generally speaking, this focal area aims to help meet the need for sustained growth, trade and exchange of services and capital within Africa.

If implemented in synergy, the aforementioned goals and programmes provide a sound basis for furthering the development of the AfCFTA framework in a way that promotes the development and growth of sustainable enterprises focused on commercializing goods and services based on Africa’s rich biodiversity and ecosystems.

4. LINKS BETWEEN TRADE AND ENVIRONMENT

Although the impact of trade on societies and ecosystems remains contested, trade in itself is neither inherently “good, nor bad, for the environment and social development” (Cordonnier Segger and Gehring, 2005, p.1). Whether trade is beneficial or harmful depends largely on “trade rules and regimes, and how these are implemented” (Cordonnier Segger and Gehring, 2005, p.1). Responding to the finding of the World Commission on Environment and Development that “the pursuit of sustainable development requires...an international system that fosters sustainable patterns of trade and finance” (Brundtland, 1987, ch.1, para. 81), the international community recognized the potential to promote sustainable development through trade in Agenda 21, the plan of action of the 1992 United Nations Conference on Environment and Development, and the need to “[e]nsure that environment and trade policies are mutually supportive, with a view to achieving sustainable development” (United Nations, 1992a).

Principle 12 of the Rio Declaration on Environment and Development (United Nations, 1992b) also notes that:

“States should cooperate to promote a supportive and open international economic system that would lead to economic growth and sustainable development in all countries, to better address the problems of environmental degradation. Trade policy measures for environmental purposes should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade. Unilateral actions to deal with environmental challenges outside the jurisdiction of the importing country should be avoided. Environmental measures addressing transboundary or global environmental problems should, as far as possible, be based on an international consensus.”

This largely reflects the language of the 1992 UNCTAD VIII Cartagena Commitment (UNCTAD, 1992), and the chapeau to article XX of the General Agreement on Tariffs and Trade (GATT) (WTO, 1947).

The first paragraph of the preamble to the Agreement Establishing the World Trade Organization (WTO), adopted in 1994, also makes references to matters relating to trade, environment and sustainable

development. Therein, WTO members recognized that:

“their relations in the field of trade and economic endeavour should be conducted with a view to raising standards of living, ensuring full employment and a large and steadily growing volume of real income and effective demand, and expanding the production of and trade in goods and services, while allowing for the optimal use of the world’s resources in accordance with the objective of sustainable development, seeking both to protect and preserve the environment and to enhance the means for doing so in a manner consistent with their respective needs and concerns at different levels of economic development.” (WTO, 1994 at preamble).

This is also consistent with the Cartagena Commitment’s language on the objectives of the emerging multilateral trading system, which should include “[ensuring] that environment and trade policies are mutually supportive, with a view to achieving sustainable development” (UNCTAD, 1992, para. 126(d)). The US-Shrimp case held that the term ‘mutual supportiveness’ “gives colour, texture, and shading to the rights and obligations”²¹ of WTO members in regard to the protection and conservation of the environment. This commitment to mutual supportiveness can be found in a number of subsequent international instruments relating to trade, environment and sustainable development, including the Nagoya Protocol (Stuart, 2014, pp.379, 385).²² The concept calls for more than simple coherence between treaty rules, rather it “entails and even requires a further step: that is for trade agreements and MEAs to be ‘mutually supportive’ or ‘mutually reinforcing legal regimes’” (Boisson de Chazournes and Mbengue, 2011, p.1620).²³

There are a wide variety of approaches to environmental and sustainable development issues in RTAs, “ranging from narrow economic agreements that do not directly address any environmental issues to broad accords that include cooperation agreements on economic, environmental and development issues” (UNEP and IISD, 2014, p.123). For example, in a treaty’s preamble, its object and purpose, and substantive provisions such as public policy exceptions. The narrowest manner of incorporating trade and environment considerations is to recognize them in the preamble, which is non-legally binding but “can provide guidance to Parties and dispute settlement bodies in interpreting the [treaty]” (UNEP and IISD, 2014, p.124).

Unlike the WTO Agreement, the AfCFTA Agreement does not include a reference to sustainable development or mutual supportiveness between measures on trade and environment. Rather, the AfCFTA preamble reaffirms *“the right of State Parties to regulate within their territories and ... flexibility to achieve legitimate policy objectives in areas including public health, safety, environment, public morals and the promotion and protection of cultural diversity.”* (African Union, 2018 at preamble, para.8). The preamble also reaffirms parties’ *“existing rights and obligations with respect to each other under other agreements to which we are parties.”* (African Union, 2018 at Preamble, para.9). These other agreements would include MEAs such as the CBD and its Nagoya Protocol, the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES) (1975), and the Revised African Convention on the Conservation of Nature and Natural Resources (African Nature Convention, 2003).

Determining the “object and purpose” of a treaty for the purposes of interpretation also requires looking to its operative provisions, including any objectives listed therein (Kritsiotis, 2018). One provision of the AfCFTA Agreement that is relevant to sustainable development is found in article 3: the general objective to *“promote and attain sustainable and inclusive socio-economic development...”*, and the specific objective to *“cooperate on all trade-related areas”* in order to fulfil and realize this general objective. As noted in article 8 of the AfCFTA Agreement, its protocols and associated annexes and appendices form an integral part of the agreement (African Union, 2018 at arts. 3(e), 8(l) and 4(d)). As such, the objects and purposes of existing and future protocols, annexes are also worth examining. Text on environment and sustainable development does not appear in the preamble to the Protocol on Trade in Goods, and is only indirectly referenced in its principal objective, to create a liberalised market for trade in goods in accordance with article 3 of

Table 3. General public policy exceptions in the GATT/GATS and AfCFTA Agreement

GATT 1947, article XX: General Exceptions	AfCFTA Agreement, article 26: General Exceptions
<p>Subject to the requirement that such measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade, nothing in this Agreement shall be construed to prevent the adoption or enforcement by any contracting party of measures:</p> <p>...</p> <p>(b) necessary to protect human, animal or plant life or health;</p> <p>...</p> <p>(g) relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption;</p> <p>...</p>	<p>Subject to the requirement that such measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between State Parties where the same conditions prevail, or a disguised restriction on international trade, nothing in this Protocol shall be construed as preventing the adoption or enforcement of measures by any State Party that are:</p> <p>...</p> <p>(b) necessary to protect human, animal or plant life or health;</p> <p>...</p> <p>(g) relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption;</p> <p>...</p>
GATS 1994, article XIV General Exceptions	AfCFTA Protocol on Trade in Services, article 15: General Exceptions
<p>Subject to the requirement that such measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where like conditions prevail, or a disguised restriction on trade in services, nothing in this Agreement shall be construed to prevent the adoption or enforcement by any Member of measures:</p> <p>...</p> <p>(b) necessary to protect human, animal or plant life or health;</p>	<p>Subject to the requirement that such measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between State Parties where like conditions prevail, or a disguised restriction on trade in services, nothing in this Protocol shall be construed to prevent the adoption or enforcement by any State Party of measures:</p> <p>...</p> <p>(b) necessary to protect human, animal or plant life or health;</p>

the AfCFTA Agreement (art.2(1)), and the social and economic facets of sustainable development appear in its specific objective in art. 2(2)(f), “to boost intra-African trade in goods through ... enhanced socio-economic development, diversification and industrialisation across Africa.”

The Protocol on Trade in Services addresses environmental and sustainable development issues in its preamble (para.5), recognizing the right of parties:

“to regulate in pursuit of national policy objectives, and to introduce new regulations, on the supply of services, within their territories, in order to meet legitimate national policy objectives, including ... overall sustainable development with respect to the degree of the development of services regulations in different countries, the particular need for State Parties to exercise this right, without compromising ... environmental protection and overall sustainable development.”

Furthering this preambular statement, the principal objective of the Protocol on Trade in Services also includes an indirect reference to the sustainable and inclusive socioeconomic development described in article 3 of the AfCFTA Agreement, and a specific objective to “promote sustainable development in accordance with the [SDGs].” This creates an opening for implementing the protocol with SDGs 14 and 15, and consequently BioTrade, in mind.

Another approach to treating trade, environment and sustainable development issues commonly found in RTAs is the public policy exception, including two general exceptions related to environmental measures (African Nature Convention, 2003). Most RTAs incorporate exceptions similar or identical to those found in article XX of the GATT and article XIV of the General Agreement on Trade in Services (GATS). The AfCFTA Agreement is no different.²⁴ Table 3 shows the similarity in language between the GATT/ GATS and AfCFTA Agreement exceptions.

The scope of the aforementioned provisions has been tested numerous times through the WTO dispute resolution mechanism. The dispute resolution mechanism’s judgments show that the relationship between trade, environment and sustainable development remains challenging. Defending parties have often been unsuccessful in proving that these environmental exceptions apply when defending trade-restrictive measures.²⁵ International consensus

to address environmental issues has been emphasized as the preferred manner for ensuring that trade and environment are mutually compatible, rather than the imposition of unilateral measures.²⁶ It is therefore clear that these exemptions allow for the implementation of MEAs such as the CBD and CITES (Zleptnig, 2010, p.189; Cottier et al., 2008, p.305), but this linkage could be reinforced through the adoption of clear substantive provisions addressing the interrelationship of African trade and environmental law. Furthermore, since they pertain only to justifying trade-restrictive measures, they cannot form the sole basis for incorporating BioTrade into the implementation of the AfCFTA Agreement.

Article 26 of the AfCFTA Agreement allows for the operation of the African Nature Convention, which establishes the basis for trade in CITES-listed BioTrade products within Africa. The African Nature Convention calls for parties to “regulate the domestic trade in, as well as the transport and possession of specimens and products to ensure that such specimens and products have been taken or obtained in conformity with domestic law and international obligations related to trade in species.” It also calls for parties to, where appropriate, “collaborate through bilateral or sub-regional agreements with a view to reducing and ultimately eliminating illegal trade in wild flora and fauna or their specimens or products.” (African Nature Convention, 2003 at art. XI (1) and (2)).²⁷

Although the links between trade, environment and sustainable development do not appear prominently in the substantive provisions of the AfCFTA Agreement, this is not uncommon. The inclusion of explicit environmental provisions in trade agreements is a relatively new phenomenon, and comparatively few currently include them (although this number is steadily increasing) (UNEP and IISD, 2014, p.123). However, more explicit inclusion of environmental provisions could play an important role for Africa, as these types of provisions “can be a way to ensure policy coherence, promote sustainable development and make sure that countries do not lower their environmental standards or derogate from them to gain trade and investment advantages” (UNEP and IISD, 2014, p.124).

There are several points where efforts could be made to enable BioTrade. For example, parties could interpret their substantive obligations in line with the objective of the AfCFTA Agreement that State parties fulfill and realize sustainable and inclusive socioeconomic

development through cooperation on all trade-related areas (African Union, 2018 at art.4(d)). The AfCFTA Agreement also allows for the negotiation of additional instruments deemed necessary in furtherance of its objectives and scope. These form an integral part of the AfCFTA Agreement once they are adopted.²⁸ The use of this mechanism could, for example, allow for the development and adoption of an additional legal instrument on cooperation on trade, environment and sustainable development building on the African Nature Convention and African Union Guidelines on the Nagoya Protocol (AMCEN, 2015). This approach has been proposed for a consumer protection protocol as an annex to the competition protocol, as the two subjects are typically addressed jointly (UNECA et al., 2019, p.152). An administrative arrangement on trade, environment and sustainable development, such as the WTO Committee on Trade and Environment that runs in parallel to the finalisation of phase I and II of the AfCFTA negotiations, could allow parties to examine, better comprehend, and further develop the relationship between trade and the environment for sustainable development in the African context.²⁹ It could allow parties to explore specific means to develop environmental goals 4, 6 and 7 explicitly listed in the Agenda 2063 on transformed economies.

The African Union Guidelines on the Nagoya Protocol consist of two separate but interrelated parts. The first part – the Strategic Guidelines – provides policy and strategic guidance for a coordinated approach to the implementation of the Nagoya Protocol in Africa. The second part – the Practical Guidelines – is a step-by-step guide providing detailed technical guidance and background considerations to assist the development and implementation of ABS systems at national and local levels. The Guidelines aim to facilitate coordination and cooperation between African countries and African stakeholders around ABS implementation and provide practical guidance on how national ABS systems can be implemented in a regionally coordinated manner. The approach to Nagoya Protocol implementation in Africa outlined in the documents is intended to make coordinated use of national flexibilities in the Nagoya Protocol to avoid a situation where African countries end up being played off against one another in a race to the bottom. While the Guidelines are not legally binding on African Union member States, they do represent a consensus on how to implement the Nagoya Protocol. In particular, they commit member States to strive for compatible access procedures, to cooperate on developing benefit sharing standards, and to give strong expression to the rights of indigenous and local communities.

5. TRADE IN GOODS

The objective of the AfCFTA Protocol on Trade in Goods per art.2, is to boost intra-African trade in goods through: “(a) progressive elimination of tariffs; (b) progressive elimination of NTBs; (c) enhanced efficiency of customs procedures, trade facilitation and transit; (d) enhanced cooperation in the areas of technical barriers to trade (TBT) and sanitary and phytosanitary measures (SPS); (e) development and promotion of regional and continental value chains; and (f) enhanced socio-economic development, diversification and industrialisation across Africa.” The African Union’s BIAT Action Plan also notes that it is important to dedicate special efforts to liberalizing trade in environmental goods to spearhead efforts in Africa for radically improving environmental conservation and sustainable use practices. Increasing market access for BioTrade products will require addressing both tariffs and NTBs. This section discusses these sub-objectives and their implications for BioTrade.

5.1. Tariffs

Tariffs pose a significant obstacle to intra-African trade. Reducing them could have a range of positive and negative effects for different actors in different countries. For example, reducing tariffs will increase market access for producers in exporting countries. It will also expose producers in importing countries to more competition (Stilwell, 2005, p.55). Negotiations are ongoing on schedules of tariff concessions,³⁰ with members yet to submit the initial tariff offers. Discussions about exemptions for ‘sensitive products’ are taking on a prominent role. The agreed tariff negotiating modalities define general liberalization of 90 per cent of products over 5 years for developing countries and 10 years for least developed countries (LDCs). Sensitive products are subject to longer transition periods (10 years for developing countries, 13 years for LDCs) making up to 7 per cent of tariff lines, with the exclusion list products making up to 3 per cent (and not exceeding 10 per cent of import value). Only exclusion list products are exempt from liberalization, so the liberalization coverage is 97 per cent (including sensitive products) (Ito, 2020, p.44). The high threshold level was chosen out of concern over the concentration of intra-African trade on a limited number of products (Ito, 2020, p.44).

It should be noted that the lists of non-sensitive,

sensitive, or excluded products are determined by country, except for the members of the East African Community (EAC), the Economic Community of Central African States (ECCAS), the Economic Community of West African States (ECOWAS) and the Southern African Customs Union (SACU). A common list is determined for the members of each of the latter four regional groupings (UNECA, 2018). The list of ‘sensitive products’ may contain certain natural resources and agricultural commodities. While the probability that BioTrade HS codes are included in the ‘sensitive products’ list is quite low, sensitive products may need to be analysed on a case-by-case basis to check if any potential BioTrade product is covered.

The preparation of initial tariff offers will require substantial work, including technical analysis, and UNCTAD BioTrade Initiative’s work on biodiversity-based HS codes may help shine some light on the most important biodiversity-based international trade flows and related tariff lines. AfCFTA members should reflect on how to enable BioTrade and the creation of regional and continental biodiversity-based value chains through targeted tariff reductions.

5.2. Non-tariff measures and barriers

NTMs are defined by UNCTAD as “policy measures other than ordinary customs tariffs that can potentially have an economic effect on international trade in goods, changing quantities traded, or prices or both” (UNCTAD, 2019g). The 2019 International Classification of NTMs³¹ identifies them as including technical measures (such as sanitary or environmental protection measures), traditional trade policy instruments (including quotas, price controls, export restrictions and contingent trade protective measures), as well as other behind-the-border measures, such as competition- and trade-related investment measures, subsidies, and government procurement or distribution restrictions (UNCTAD, 2019g). Unfair commercial practices are also included in the Classification, and are closely related to consumer protection, as they would prevent the creation of competitive markets within the AfCFTA.

Non-tariff barriers (NTBs) are a “subset of the NTMs that have a protectionist or a discriminatory intent, or where the trade restrictiveness exceeds what is needed for the measure’s non-trade objectives, implying a negative impact on trade” (UNCTAD, 2017b, p.3). These have been found to present

a challenge for the growth of BioTrade between developing and developed countries.³² Although they may serve a legitimate purpose in safeguarding human, animal and plant health and the environment in importing countries, a balance must be struck to ensure that NTBs do not render compliance with norms overly difficult and thereby cause more harm than good. This is especially important for countries that have based their development strategies in part on exporting agricultural and other biodiversity-based products (Stilwell, 2005, p.55). A clear benefit exists for BioTrade from increased market access for exporters across the continent through the creation of closer regulatory environments between State parties to the AfCFTA Agreement.³³

The main text of the AfCFTA Agreement defines NTBs as simply “barriers that impede trade through mechanisms other than the imposition of tariffs...” (African Union, 2018 at art.1(r)). This definition is restated in the Protocol on Trade in Goods. One of the specific objectives of this protocol is to “boost intra-African trade in goods through ... progressive elimination of [NTBs] (art.2(2)(b)).” Subject to the terms of this protocol, the identification, categorisation, monitoring and elimination of NTBs is to be carried out in accordance with annex 5 and its appendices,³⁴ Appendix 1 to annex 5 provides a general categorization of potential sources of NTBs.³⁵ Appendix 2 to annex 5 lays out a detailed procedure for elimination and co-operation in the elimination of NTBs where they cannot be addressed through existing NTB elimination channels at the REC level, or a complaint arises from inter-REC trade.

The Common Market for Eastern and Southern Africa (COMESA), the East African Community (EAC) and the Southern African Development Community (SADC) have implemented the first functional NTB reporting, monitoring and eliminating mechanism in Africa in the context of their Tripartite free trade area (FTA), establishing an online platform for NTB reporting by stakeholders (Non-Tariff Barriers: Trade barriers in Africa, 2021). The AfCFTA Agreement’s mandate to establish an African-wide mechanism for reporting, monitoring and eliminating NTBs has spurred a project to build on the success of the Tripartite FTA platform and scale it up to cover the entire continent. The African Union Commission, the African RECs and UNCTAD have joined forces on this effort (UNCTAD, 2019b).

As they pose the most immediate challenge to

facilitating BioTrade on the continent, and can be addressed through the AfCFTA NTB mechanism, the sections below address what the International Classification considers to be “technical measures”, namely SPS measures, TBT and the broad category of NTBs falling under the heading of “pre-shipment inspection and other formalities”, which are addressed under the subject of trade facilitation.

There is a need for the identification, categorization and progressive elimination of NTBs applicable to biodiversity-based products, and more specifically to BioTrade products, in the African context based on appendix 1 to annex 5. Focus could be placed on the most restrictive and impactful NTBs. Without such a list, it will be difficult to make use of the annex 5 cooperation mechanism and enable larger flows of BioTrade products within the region.

5.2.1. Sanitary and phytosanitary measures

The International Classification defines SPS measures as:

“[m]easures that are applied to protect human or animal life from risks arising from additives, contaminants, toxins or disease-causing organisms in their food; to protect human life from plant- or animal-borne diseases; to protect animal or plant life from pests, diseases, or disease-causing organisms; to prevent or limit other damage to a country from the entry, establishment or spread of pests; and to protect biodiversity. These include measures taken to protect the health of fish, wild fauna, forests and wild flora.” (UNCTAD, 2019g).

This definition largely reflects the definition found in the WTO Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement), with added clarification on what the terms ‘animal’ and ‘plant’ mean.

The major rationale behind the development of the SPS Agreement was to secure the market access negotiated under the WTO Agreement on Agriculture by limiting the role of domestic SPS measures to act as *de facto* protectionist measures that exclude agricultural products from entering into foreign markets, especially those coming from developing countries (Rigod, 2013, pp. 503, 507, 529). Despite this early rationale, the SPS Agreement extends to goods beyond those covered by the Agreement on Agriculture (Mavroidis, 2016, p.456). To do so, it links the development of domestic SPS measures to a

scientific risk assessment whereby WTO members decide on the 'appropriate level of protection'.

Once an appropriate level of protection has been established, the associated measures must be the least restrictive means necessary to achieve the stated objective, consistent, and applied in a non-discriminatory manner (Mavroidis, 2016, p.455). Where an international standard meets the appropriate level of protection, the domestic measure must conform or be based on it. The advantage of conforming with an international standard is that the measure will be presumed to meet the threshold of necessity mentioned above (Mavroidis, 2016, p.468). The primary standard-setting organizations for food safety, animal health and plant health are the Codex Alimentarius Commission (CAC), the International Office of Epizootics (OIE) and the Secretariat of the International Plant Protection Convention (IPPC), respectively.

Despite good intentions, developing countries have faced difficulties in participating in the international harmonization effort. This can be due to a lack of scientific, technical and/or financial resources. As a result, their interests have not always been taken into account in developing the standards used in the context of the SPS Agreement (Neeliah et al., 2012, pp. 104, 107). Furthermore, importing countries are also free to adopt measures that imply a higher standard of protection than those found in international standards (Mavroidis, 2016, pp. 469-470), provided that they are not applied in a discriminatory manner. However, this has not been done frequently.

The difficulties of exporting under increasingly strict SPS standards are particularly acute for many developing countries (Jensen, 2002, p.3). Many countries find it challenging to meet the target levels established by the SPS Agreement due to the costs of implementation (Neeliah et al., 2012, p.121). Implementation costs include the costs of setting up the public infrastructure required, joining international standardization organizations and participating in their meetings, restructuring public agencies and educating personnel, and creating links to the private sector to communicate information about problems encountered in foreign markets (Jensen, 2002, p.31). Developing countries also have to reform their standards regulations to meet international levels, and reform their standards setting processes—including developing the financial, technical and human capacity to carry out risk assessments using internationally

recognized methods to back standards in areas where international standards do not exist (Jensen, 2002, p.31). One particularly well-known case of high costs in meeting SPS standards is the ongoing dispute between South Africa and the European Union over citrus black spot (1992-present), which was brought before the SPS Committee in 2013,³⁶ and submitted to IPPC under its dispute settlement procedures in 2014. In 2019, it was estimated that South African citrus producers were spending over \$130 million per year to comply with the relevant European Union SPS measures to safeguard their citrus exports (EUROFRUIT, 2019).

SPS measures are addressed in art. 3 annex 7 (SPS Annex) to the Protocol on Trade in Goods of the AfCFTA Agreement. Its underlying principle is that parties are to be guided by the provisions of the SPS Agreement in the preparation, adoption and application of SPS measures. Given the challenges mentioned above, the SPS Annex aims to facilitate trade while also safeguarding human, animal or plant life or health, enhance cooperation and transparency in the development of SPS measures so that they do not become unjustifiable barriers to trade, and to enhance the technical capacity of parties for the implementation and monitoring of SPS measures while also encouraging the use of international standards in eliminating barriers to trade.

The SPS Annex also aims to further recognize regional conditions, with a view to boosting intra-African trade in animals, animal by-products, plants, plant products and plant by-products. In regard to trade in animals and their by-products, it is specific in committing parties to recognizing specific concepts, principles and guidelines on regionalization and zoning, "as outlined in the Terrestrial and Aquatic Animal Health Codes of the OIE, and agree to apply this concept to prescribed diseases to be determined by consensus."³⁷ It is also explicit in requiring parties to base their sanitary measures on the zoning decision made by the exporting party where it is satisfied that this decision is in accordance in with agreed-upon principles and guidelines, and relevant international standards, guidelines and recommendations. Furthermore, the concept of compartmentalisation is recognized, with parties agreeing to cooperate on the subject, and endeavouring to recognize regional conditions. In regard to trade in plants, plant products and plant by-products, importing parties must take into account the pest status of an area (e.g., a pest-free area, pest-

free place of production, pest-free production site, an area of low pest prevalence and a protected zone) that the exporting party has established, when establishing or maintaining its phytosanitary measures. This recognition of regional conditions and the potential for compartmentalisation offers significant potential for BioTrade, as it could allow for the further development of regional value chains by aligning SPS standards in regions with similar pest or disease profiles.

The SPS Annex also brings greater clarity to commitments on recognizing equivalence and harmonization of SPS measures. It makes it clear that equivalence can be based on reference to international standards and risk assessment procedures, and which procedures must be followed for determining equivalency (those of the WTO SPS Committee, CAC, OIE and IPCC). For the purposes of harmonization, parties are obliged to cooperate in the development and harmonization of SPS measures based on international standards, guidelines and recommendations, also taking into account the harmonization of such measures at the regional level; may introduce or maintain SPS measures which result in a higher level of SPS protection if done in accordance with article 5 of the SPS Annex; shall fully participate in the work of relevant organizations and subsidiary bodies, in particular the CAC, OIE and IPCC; and establish harmonized SPS import requirements for priority commodities, where such commodities are jointly identified.

In a novel provision that is not found in the SPS Agreement, in order to maintain confidence in the implementation of the SPS Annex, importing parties may carry out an audit and/or verification of all or part of the control programme of the exporting party's competent authority, at their own expense. This must be carried out in accordance with principles and guidelines established by international standards bodies in conducting audits or verifications, as agreed between the parties. The SPS Annex is also quite detailed on what may be done in regard to import or export inspections and fees, as well as transparency requirements on SPS measures.

In an effort to overcome existing limitations in implementing commitments under the SPS Agreement, parties to the AfCFTA commit themselves to cooperate in the implementation of obligations arising out of the SPS Annex, including on technical assistance, and on the following in particular: (a) exchange of information and sharing of expertise

and experience among State parties; (b) adopting harmonized common positions while participating in international SPS fora relevant to the AfCFTA; (c) development and harmonization of SPS measures at regional and continental levels, on the basis of established scientific data or relevant international standards; (d) development of infrastructure such as testing laboratories; (e) capacity building for public and private sector stakeholders, including through information sharing and training; and (f) identification or establishment of SPS centres of excellence.

This commitment to cooperation could go a long way towards shoring up existing national SPS systems, enabling greater intra-African and international trade of biodiversity-based products and services, including BioTrade. Rigorous implementation of these provisions will help ensure that parties will be able to use the opportunities used by the SPS Annex and SPS Agreement (e.g., increased market access) while lowering the currently high implementation costs. It will also help ensure that SPS measures appropriate for the regional and continental markets are adopted, rather than simply applying the strict international measures primarily negotiated by developed countries.³⁸

Although a Continental SPS Committee chaired by the African Union Commission has been established to coordinate SPS issues at the continental level (EUROFRUIT, 2019), it may be that a sub-committee under the AfCFTA replaces it in due time as the SPS Annex calls for the establishment of a Sub-Committee for SPS Measures under the Committee for Trade in Goods that will be established by the Council of Ministers to facilitate the operation of the Protocol on Trade in Goods (African Union, 2018 at annex 7, art. 15(1)). One particularly interesting function of the future SPS Sub-Committee would be the identification, establishment and monitoring of a capacity building programme to support implementation of the provisions of the SPS Annex, in conjunction with the AfCFTA Secretariat (African Union, 2018 at art. 15(3)(f)).

This capacity building programme could help countries make significant strides in trade in goods based on biodiversity, and more specifically on certain BioTrade products, if oriented properly. For example, the programme could provide support for compliance with internationally recognized SPS standards, and for negotiators to develop common positions for international fora relevant to SPS issues. However, there are also fundamental issues on the ground which must be engaged with. These include, for example, building

the infrastructure necessary for exporters to comply with SPS standards, and the need to support the private sector in developing appropriate industry standards.

5.2.2. Technical Barriers to Trade

The International Classification defines TBT as “[m]easures referring to technical regulations and procedures of assessment of conformity with technical regulation, excluding ... [SPS measures]” (UNCTAD, 2019c, p.10). Technical regulations are defined as “a document that sets out product characteristics or related processes and production methods [PPM], including the applicable administrative provisions, with which compliance is mandatory. It may also include or deal exclusively with terminology, symbols, packaging, marking or labelling requirements as they apply to a product or [PPM]” (UNCTAD, 2019c, p.10). This definition is drawn directly from annex 1 to the WTO Agreement on Technical Barriers to Trade (TBT Agreement). A conformity-assessment procedure is defined as “any procedure used, directly or indirectly, to determine whether relevant requirements in technical regulations or standards have been fulfilled; it may include, inter alia, procedures for sampling, testing and inspection; evaluation, verification and assurance of conformity; registration, accreditation and approval, as well as a combination thereof” (UNCTAD, 2019c, p.10). This is also drawn directly from annex 1 to the TBT Agreement.

The International Classification does not delve into what constitutes a standard, but annex 1 to the TBT Agreement does. It defines a standard as a “document approved by a recognized body, that provides, for common and repeated use, rules, guidelines or characteristics for products or [PPM], with which compliance is not mandatory. It may also include or deal exclusively with terminology, symbols, packaging, marking or labelling requirements as they apply to a product, process or production method.” This definition covers so called voluntary sustainability standards, which the United Nations Forum on Sustainability Standards (UNFSS) defines as “standards specifying requirements that producers, traders, manufacturers, retailers or service providers may be asked to meet, relating to a wide range of sustainability metrics, including respect for basic human rights, worker health and safety, the environmental impacts of production, community relations, land use planning and others” (UNFSS, 2013, p.4). A number of Voluntary Sustainability Standards (VSS) are relevant to BioTrade, including the

Ethical BioTrade Standard developed by UEBT, which builds on the BioTrade P&C (UEBT, 2020). Also, the UNCTAD/ITC self-assessment tool allows companies, producers, cooperatives and other actors working on the trade of biodiversity-based products and services to benchmark their sustainability practices against the BioTrade P&C (BioTrade Knowledge Sharing & Self-Assessment Tool, n/d).

TBTs are addressed in annex 6 (TBT Annex) to the Protocol on Trade in Goods of the AfCFTA Agreement. It begins with the statement that “except where this Annex gives a specific meaning to a term, the general terms for standardisation, technical regulations, conformity assessment procedures and related activities shall have the meaning given to them by the definitions adopted within the WTO Agreement on Technical Barriers to Trade and by other international bodies dealing with [TBT] issues.” The TBT Agreement thus forms the basis of art.3(1) of the TBT Annex. However, unlike the TBT Agreement, which primarily aims to ensure that technical regulations and standards do not create unnecessary obstacles to trade, the TBT Annex aims to facilitate trade through cooperation, the elimination of unnecessary and unjustifiable technical barriers, strengthening cooperation and identifying priority areas, developing and implementing capacity building programmes, and establishing mechanisms and structures to enhance transparency in the development of measure that could be considered TBT, and promote mutual recognition of results of conformity assessment (African Union, 2018 at annex 6, art. 4(a)-(f)).

Given that international standards can cause barriers to trade in biodiversity-based products within Africa due to financial, human and technical limitations, one opportunity for enhancing BioTrade within Africa is to focus efforts on using the TBT Annex to promote the development and implementation of standards designed within Africa (e.g. by the African Accreditation Cooperation (AFRAC) or the African Organization for Standardization (ARSO)) (African Union, 2018 at art.2). This can help ensure that trade in biodiversity-based products within Africa is carried out on terms that are suitable to AfCFTA parties’ continental and sub-continental needs and concerns, rather than those established at the global level. Another opportunity is the development of capacity on the application of voluntary sustainability standards, which would allow African producers to sell their goods in higher value niches that require certification.

5.3. Trade facilitation

Trade facilitation aims to help goods move more easily across borders. Broadly speaking, it can be defined as the “simplification and harmonization of international trade procedures, including the activities, practices and formalities involved in collecting, presenting, communicating and processing data required for the movement of goods in international trade.”³⁹ Trade facilitation provides an important opportunity for the transition to a green economy, including by facilitating trade in biodiversity-based products, especially those that are more perishable or take road routes. Lower costs, greater predictability and increased efficiency at the border can reduce waste, carbon emissions and other negative environmental impacts of trade (UNEP and IISD, 2014, p.136).

The WTO Trade Facilitation Agreement (TFA), the most recent WTO agreement, was concluded at the 2013 Bali Ministerial Conference, and adopted in its final form in November 2014. It entered into force in November 2017. Obligations under the TFA are divided into two sections, the first containing articles on the trade facilitation obligations to be implemented, and the second covering issues related to special and differential treatment (Valensisi et al., 2016, p.239). The TFA is expansive in scope, subjecting every internationally traded good to trade facilitation measures (Eliason, 2015, pp.643-644). Although it is not a radically new agreement in its content, “it represents an understanding of modern practices and areas in which improvement in efficiency and transparency are needed...” (Eliason, 2015, p.648).

Section I includes obligations to: publish and make available information; provide an opportunity to comment on new or amended laws or regulations, receive information on them before entry into force, and engage in regular consultations; issue advance rulings on how goods will be treated; establish procedures for appeal or review of advance rulings; issue notifications for enhanced controls or inspections, provide prompt information on the detention of goods, and provide procedures to challenge test findings. Section I also incorporates disciplines on fees and charges imposed on or connected to import and export, and on penalties. Further obligations are established on the release and clearance of goods, including perishable goods; cooperation between border agencies; the movement of goods intended for import; import, export and transit formalities; freedom of transit; and customs cooperation.⁴⁰

Section II contains a number of provisions for special and differential treatment for developing countries and LDCs. Generally speaking, these provisions call for assistance and support for capacity building on the implementation of obligations under the TFA, and flexibility in implementation based on the capacity of the implementing country. Different categories of provisions are established for this purpose and developing/least developed countries must self-designate whether provisions come into force promptly (immediately or within one year for LDCs), within a transitional period of time, or within a transitional period of time along with capacity development. For the first time in a WTO agreement, obligations are established on providing assistance and support for capacity building between developed and developing countries/LDCs.

Africa’s challenges with disproportionately high transaction costs for international trade are well documented. Although significant variability across countries exists, documentary requirements appear to be particularly time-consuming and burdensome by international standards, and customs procedures are also disproportionately expensive. Landlocked developing countries are particularly disadvantaged due to higher expenses for inland transportation and inefficient procedures at their own borders and in transit countries. Some RECs have reduced these costs among their members, but trade integration across RECs is lacking. As such, these heightened transaction costs are a significant obstacle not just to Africa’s integration into the global market, but also to its regional market integration. Trade facilitation measures could thus make a real contribution to integrating the African market (Valensisi et al., 2016, pp. 239-244), especially in the case of perishable goods, defined in the TFA as “goods that rapidly decay due to their natural characteristics, in particular in the absence of appropriate storage conditions.” This is of particular relevance to BioTrade, as a share of biodiversity-based goods may fall into this category—particularly if they are fresh or semi-processed, and thus only traded as part of regional value chains. The perishing of these goods in transit due to trade barriers can lead to significant economic impacts.

Trade facilitation is also one of the priority clusters of the 2012 BIAT Action Plan. Given its importance, it is also addressed in the AfCFTA Agreement under the Protocol on Trade in Goods, which calls for parties to take “appropriate measures including arrangements

regarding trade facilitation in accordance with the provisions of Annex 4 on Trade Facilitation [Trade facilitation Annex]⁷ (African Union, 2018 at Protocol on Trade in Goods, art. 15). The Trade facilitation Annex integrates many of the provisions of the TFA,⁴¹ but is more detailed and specific in some of them, while being less so in others. It contains two clear objectives: (1) to simplify and harmonise international trade procedures and logistics to expedite the processes of importation, exportation and transit; and (2) to expedite the movement, clearance and release of goods, including goods in transit across borders (African Union, 2018 at annex 4, art. 2). The Trade facilitation Annex also holds that its provisions are to be interpreted and applied in accordance with the principles of transparency, simplification, harmonization and standardisation of Customs Law, procedures and requirements⁴² (e.g., the principles found in the Revised Kyoto Convention) (African Union, 2018).

The main innovation in the Trade facilitation Annex that goes beyond the TFA is its provision on the use of information technology, namely the obligation for parties to use the most modern information and communications technology to expedite procedures for the release of goods, including those in transit, to the extent practicable. In addition to the TFA's obligations on making information available through the internet, the Trade facilitation Annex calls for parties to endeavour to allow for the electronic submission of documentation for import, export, or transit; creation of an electronic system for data exchange relating to trade information that is accessible, and continuously promote data exchange by importers, exporters and persons engaged in the transit of goods; and collaborate with other parties to implement mutually compatible electronic systems that enable the intergovernmental exchange of trade data amongst parties (African Union, 2018 at annex 4, art. 17(1) and (2)). This particular provision has the potential to dramatically simplify trade procedures and significantly increase transparency and peer-to-peer learning.

UNCTAD has noted that “[p]olicymakers that aim at achieving SDGs should keep in mind that the implementation of many specific trade facilitation measures may be an effective tool towards meeting specific SDG targets ... [they] are an opportunity to engage in reforms that make economic activities more transparent and help small traders enter the formal sector” (UNCTAD, 2015a). Implementation of the Trade facilitation annex can play an important

role in streamlining documentation requirements and enhancing the transparency and efficiency of custom procedures in Africa. Although larger companies are better placed to take advantage of certain provisions of the Trade facilitation Annex (e.g. advance rulings, right to appeal, authorized operators) (Valensisi et al., 2016, p.247), MSMEs will also benefit from many of the reforms required, as they tend to bear a disproportionately high cost when addressing administrative and regulatory obstacles as compared to larger operators. Since many BioTrade activities are carried out at this level, they would stand to benefit significantly from enhanced transparency and efficiency in trade procedures (Valensisi et al., 2016, p.247). Implementation of the Trade facilitation Annex in parallel with technical assistance for the private sector to enhance knowledge and familiarity with the new procedures would be particularly effective (Valensisi et al., 2016, p.247).

Ensuring that BioTrade products can cross borders in a timely and predictable manner, rather than be turned back and potentially spoiled, will strengthen the biodiversity-based economy. It will also enhance the development of regional value chains, including by adding value to Africa's biodiversity-based products. Given the economic potential for BioTrade products in Africa, attention should be placed on ensuring that trade in products based on biological resources is facilitated through the prompt and targeted implementation of the Trade facilitation Annex. A focus in implementation should be placed on supporting MSMEs, as they face the biggest hurdles to export.

5.4. Trade in services

Economic liberalisation of services has the potential to result in positive, negative or neutral economic, social and environmental impacts (Stilwell, 2005). In consequence, this section examines how liberalization of trade in services under the AfCFTA could be oriented towards positive outcomes by promoting trade in services provided in line with the BioTrade P&C, and in line with the objective of the AfCFTA Protocol on Trade in Services to promote sustainable development in accordance with the SDGs. The services covered by the Protocol on Trade in Services are the same as those covered by GATS, which applies to four types of supply of services: cross-border supply, consumption abroad, commercial presence, and the presence of natural persons. National treatment under the GATS is linked to specific commitments made by

WTO members⁴³ in their national schedules, where they specify sector-specific commitments for market access and national treatment. Where a member has agreed to include a sector in its schedule, it must list all measures that restrict market access or deviate from national treatment to be WTO compliant.⁴⁴ The Protocol on Trade in Services also calls for national treatment subject to sector specific commitments. Schedules of Specific Commitments on Trade in Services were expected to be presented for adoption in January 2019, but members have now agreed to finalise the development of schedules of specific commitments in the five priority sectors by June 2021 (Tralac, 2021).

Members are taking a positive list approach to liberalization, so only five listed sectors will be liberalized. These five priority sectors for phase I are business, communication, financial, transport and tourism services (Keller, 2019, p.6). Negotiations of the remaining seven sectors (construction, distribution, education, energy, environmental, health and social services) will follow thereafter.⁴⁵

Unlike the GATS' focus on simply increasing the participation of developing countries in world trade in services, the Protocol on Trade in Services focuses on ensuring increased and beneficial trade in services by requiring parties to: provide special consideration to the progressive liberalisation of service sectors commitments and modes of supply which will promote critical sectors of growth, social and sustainable economic development; take into account the challenges that may be encountered by parties, to accommodate special economic situations and development, trade and financial needs (by e.g. granting flexibilities such as transitional periods, within the framework of action plans, on a case by case basis); and accord special consideration to the provision of technical assistance and capacity-building through continental support programmes.

The commitments on progressive liberalisation under the Protocol on Trade in Services are also different from those made under the GATS. In promoting successive rounds of negotiations for progressive liberalization accompanied by the development of regulatory cooperation and sectoral disciplines, the Protocol on Trade in Services references the need to consider the objectives of the 1991 Abuja Treaty of strengthening integration, and the need for alignment with the general principle of progressing towards the ultimate goal of an African Economic Community.

It also calls for parties to negotiate sector specific obligations through the development of regulatory frameworks for each, taking into account, among others, best practices and *acquis* from the RECs (African Union, 2018 at Protocol on Trade in Services, arts. 7, 18 (1) and (2)).

Furthermore, the Protocol on Trade in Services also provides greater emphasis on technical assistance, capacity building and cooperation. parties agree, where possible, to mobilise resources, in collaboration with development partners, and implement measures, in support of the domestic efforts of parties, with a view to, among others: building capacity and training for trade in services; improving the ability of suppliers to gather information on and to meet regulations and standards at international, continental, regional and national levels; improving the export capacity of both formal and informal suppliers, with particular attention to MSMEs, women and youth suppliers; supporting the negotiation of mutual recognition agreements; facilitating interaction and dialogue between suppliers to promote information sharing on market access opportunities, peer learning and the sharing of best practices; addressing quality and standards requirements in those sectors where parties have undertaken commitments to support the development and adoption of standards; and developing and implementing regulatory regimes for specific sectors at continental, regional and national levels, in particular in those sectors in which parties have undertaken specific commitments (African Union, 2018 at Protocol on Trade in Services, art. 27(2)).

Nature-based tourism, including ecotourism, has been implemented as a BioTrade service activity in some partner countries. Agenda 2063 and the New Partnership for Africa's Development (NEPAD) Tourism Action Plan recognize tourism's importance in driving socioeconomic development and structural transformation and catalysing growth in other productive sectors (African Union, 2018). Under the economic diversification and resilience priority area of Agenda 2063, Target 1.4.3.b is to increase tourism's 2013 contribution to GDP at least fivefold by 2063. Under the tourism/hospitality priority area for Agenda 2063, Target 1.4.4.b is that eco-friendly coastal tourism increases fivefold by 2063 with at least 20 per cent of public revenues from it going to finance local development programmes of communities. Under the blue/ocean economy focal area of Agenda 2063, Target 1.6.1.b calls for at least quadrupling in real terms the

contribution of eco-tourism to GDP, and Target 1.6.1.c calls for an increase in coastal tourism by 20 per cent by 2020, with at least 10 per cent of resulting public revenues going to finance the development programmes of local communities. Given the emphasis placed in Agenda 2063 on growing tourism and ecotourism in particular, and a growing scope for boosting continental and intraregional travel in Africa, Governments should ensure that specific attention is devoted to facilitating the provision, regulation and delivery of services that enable ecotourism (UNCTAD, 2017c, paras. 8(d), 16).

REDD+ has also been implemented as a BioTrade activity in some partner countries.⁴⁶ It is possible to link REDD+ and BioTrade to generate positive incentives over the short, medium and long term to conserve and sustainably use forests (UNCTAD, 2014a, p.14). Synergies require an enabling policy environment, private sector investment in carbon sequestration and BioTrade products and services, and the participation of local communities in the management of carbon stocks, in sustainable value-added activities and in benefit-sharing.⁴⁷ Under the biodiversity conservation and sustainable natural resources management goal, Target 1.7.2.a aims that, by 2063, forest and vegetation cover is restored to the 1963 level. Target 1.7.2b aims that, by 2063, land degradation and desert encroachment is halted and reversed, and that biodiversity and habitat loss is reduced by at least 90 per cent. Under the climate resilience and natural disasters priority area, Target 1.7.4 aims that, by 2035, emissions arising from agriculture, biodiversity loss, land use and deforestation are reduced by 90 per cent. Given the emphasis placed in Agenda 2063 on reversing forest, biodiversity and natural habitat loss, Governments should ensure that specific attention is devoted to facilitating REDD+ in negotiations over services, including the liberalization of business and financial services.

5.5. Intellectual property

The AfCFTA protocol on intellectual property will be negotiated in the second round of negotiations under the AfCFTA Agreement. Among other intellectual property agreements, negotiators will need to take into consideration the provisions of the Agreement on Trade-related Aspects of Intellectual Property Rights (TRIPS Agreement), which is an integral part of the WTO Agreement establishing minimum standards of intellectual property protection that must be

incorporated into national legislation by WTO members unless they are specifically exempt (which is the case for LDCs for most intellectual property until 2021, and until 2033 for pharmaceutical products and clinical data) (UNCTAD, 2014b, p.30). Its general goals include “reducing distortions and impediments to international trade, promoting effective and adequate protection of IPRs, and ensuring that measures and procedures to enforce IPRs do not themselves become barriers to legitimate trade.” WTO members can determine the appropriate method of implementing its provisions within their own legal system and practice (Taubman et al., 2012, pp.13-14).

The TRIPS Agreement was not inherently designed to support the CBD’s objectives or BioTrade, but there are provisions which have an impact on those objectives (UNCTAD, 2014b, p.34). The CBD speaks directly to this, recognizing that patents and other IPRs can influence its implementation, and requiring parties to cooperate – subject to national legislation and international law – to ensure that IPRs are supportive of, and do not run counter to, the CBD’s objectives (CBD, 1993 at art.16(5)). In the context of BioTrade, the misappropriation of genetic resources and the lack of benefit sharing through the use of IPRs are of particular concern (CBD, 1993).⁴⁸ The 2001 Doha Declaration addressed this subject, noting that reviews of the TRIPS Agreement and outstanding implementation issues before the TRIPS Council should cover the relationship between the TRIPS Agreement and the CBD, as well as the protection of traditional knowledge and folklore (WTO, 2001, para. 19).

Specific types of intellectual property covered by the TRIPS Agreement of relevance to BioTrade include patents, trademarks, geographical indications, and plant variety protection (PVP). *Sui generis* systems for the protection of traditional knowledge and folklore are not included under the TRIPS Agreement, as no international agreement existed on the matter at the time. However, they are the subject of ongoing negotiations at the global level under the aegis of the World Intellectual Property Organization (WIPO) (Intergovernmental Committee (IGC), 2021).

All the aforementioned rights are addressed by the international instruments establishing, or developed by, regional intellectual property organizations, such as the African Regional Intellectual Property Organization (ARIPO) and the African Intellectual Property Organization (OAPI). In addition, the African Union has launched the process for establishing a Pan-African

Intellectual Property Organization (PAIPO) by 2023, with the ARIPO and OAPI as building blocks.⁴⁹ This means that their existing intellectual property policies will have implications for BioTrade across Africa (Isiko Štrba, 2017, pp.191, 194), and should be considered in the development of standards for intellectual property protection under the AfCFTA Agreement.

5.5.1. Patents

Part II of the TRIPS Agreement sets out the minimum standards for patent protection, including the subject matter eligible for protection, the scope of rights to be conferred, the exceptions allowed, and the minimum duration of protection (Taubman et al., 2012, pp. 10-11). Article 27 of the TRIPS Agreement defines which inventions must be eligible for patenting (both products and processes, generally covering all fields of technology), and what can be excluded from patenting. Article 27.3(b) of the TRIPS Agreement allows governments to exclude some kinds of inventions from patenting, such as plants, animals and essentially biological processes, not including micro-organisms or non-biological and microbiological processes (as plants varieties cannot be excluded entirely, this will be discussed further in subsection 3 below) (UNCTAD, 2014b, p.31).

Discussions at the TRIPS Council on the relationship between patents and the CBD began in 2002 (WTO, 2002), but have not reached any agreed outcomes. Discussions shifted to the Trade Negotiations Committee in 2008, but stalled in 2011 after WTO members, including those in the African Group, tabled a draft decision calling for the amendment of the TRIPS Agreement to introduce a mandatory disclosure requirement as part of the agreement's minimum standards on intellectual property. Building on article 29 of the TRIPS Agreement – which requires disclosure of the invention – draft article 29*bis* called for a mutually supportive relationship between the TRIPS Agreement, the CBD and the Nagoya Protocol, including the disclosure of the country of origin and the source of a genetic resource when patent applications involve the use of a genetic resource and/or associated traditional knowledge (UNCTAD, 2014b, pp. 32-33). The amendment was not adopted, likely because instead of being purely a transparency mechanism, it included an obligation for proof of legal use of genetic resources such that it could, by default, qualify a patent office as a checkpoint under the Nagoya Protocol. In particular, applicants would be required to provide proof of legality of source or origin through an

Internationally Recognized Certificate of Compliance (IRCC), or alternatively “relevant information regarding compliance with prior informed consent and access and fair and equitable benefit sharing as required by the national legislation of the country providing the genetic resources and/or associated traditional knowledge...” (CBD, 2010b at art.17(1)). For example, patents are an important indicator of investments in research and development directed to the development of commercial products (Oldham et al., 2013) as well as they (together with other forms of intellectual property like trademarks) “can offer opportunities to protect innovations along the value chain, protect and promote brands and reputation and improve market access and opportunities”. BioTrade companies and associations in Asia, Africa⁵⁰ and Latin America, have used the different forms of intellectual property to protect innovations and promote the marketing of their products, especially at the higher end of the value chain. Therefore, progress on this area can also benefit BioTrade companies and organizations (UNCTAD, 2017d).

A mandatory requirement to disclose the origin or source of genetic or biological resources and associated traditional knowledge also has not been adopted at the WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore (IGC) and a breakthrough at the global level does not appear imminent (Correa, 2018, p.14), although a recently tabled textual proposal from the Chair of the negotiations may re-energize this leg of the negotiations (WIPO, 2021). In October 2020, for the first time, the WIPO secretariat was invited to brief the TRIPS Council on the IGC negotiations (see further below), perhaps a small initial step towards combatting the fragmentation that usually characterizes multilateral negotiations in different fora. Inclusion of a mandatory disclosure requirement in the forthcoming intellectual property provisions in the AfCFTA Agreement could be one way to establish a disclosure standard at the continental level, helping to facilitate compliance with the Nagoya Protocol within the continent, and setting a standard that could be brought into negotiations with countries or trade blocs wishing to establish an FTA linked to the AfCFTA. Key aspects to define in such a mechanism would be the nature of the requirement (e.g., formal or substantive), various aspects of its scope, trigger, sanctions for non-compliance, the information to be disclosed, the role of patent authorities and environmental regulators, and its legal effects.

Box 2. Examples of geographical indications in Africa relevant to BioTrade

- Argane (Morocco, protected geographical indication under domestic legislation, recognized in the European Union in 2011).
- Safran de Taliouine (Morocco, protected appellation of origin under domestic legislation).
- Roiboos tea and Honeybush tea (South Africa, protected under the European Union-SADC Economic Partnership Agreement).
- Karoo meat of origin (South Africa, protected under the European Union-SADC Economic Partnership Agreement).
- Poivre de Penja (Cameroon, Protected Geographic Indication, OAPI).
- Miel blanc d'Oku (Cameroon, Protected Geographic Indication, OAPI).
- Ziama-Macenta coffee (Guinea, Protected Geographic Indication, OAPI).
- "Coffee Kenya, So Rich So Kenyan" (Kenya, Certification Mark, Coffee Board of Kenya).

Neither the disclosure of geographical origin or source requirement itself, nor its inclusion in an FTA, would be novel, as patent disclosure of origin requirements have already been incorporated into FTAs involving Latin American and Asian countries (Morin and Gauquelin, 2016, p.5). Such requirements also exist in the national laws of over 30 countries, a number of which are in Africa (e.g., Burundi, Djibouti, Egypt, Ethiopia, Namibia, South Africa, Uganda and Zambia), and two regional organizations.⁵¹

5.5.2. Geographical indications and trademarks

A geographical indication is a sign identifying goods as originating from a specific locality, region or territory which confers upon them a recognized quality, reputation or other characteristic that is essentially due to the geographical origin (UNCTAD, 2014b, p.121; Taubman et al., 2012, pp.78-79). They are protected in order to inform consumers and prevent consumer deception, helping ensure fair competition among producers, creating incentives for the provision of quality products, generating value for producers, and enabling consumers to make informed choices (Taubman et al., 2012a, p.4). They can also be used as a tool to preserve traditional production practices and to link the use of the sign to local production. They are a potential tool to promote BioTrade, incorporating benefit sharing, preserving traditional practices associated with biological resources⁵² (UNCTAD, 2014b, p.121; Taubman et al., 2012, p.77) and promoting the implementation of biodiversity-friendly practices. Based on BioTrade experiences in Latin America, geographical indications also contribute to

the organization of the product's value chain, enhance the traceability and documentation of products registered and establishment of a monitoring system, improve market access and differentiate BioTrade products in the marketplace (Jaramillo, 2012, pp.35-38). Box 2 illustrates geographical indications that are relevant to BioTrade in Africa. The utilization of genetic resources and associated traditional knowledge, or their subsequent application and commercialization, may be distinguished through trademarks. They ensure that consumer can distinguish between products and facilitate their decision-making. Further, they can be used as part of marketing campaigns and for building a brand image and reputation. Trademarks may also be licensed to provide a direct source of revenue through royalties and may help in obtaining financing.

Article 22 of the TRIPS Agreement – which only applies to a subset of AfCFTA parties – requires WTO members to provide a measure of protection for geographical indications to prevent the public from being misled as to the geographical origin of a good, and to prevent unfair competition. This is subject to exceptions enumerated in article 24, such as for names that have already become commonplace (e.g. a generic term) and prior trademark rights (UNCTAD, 2014b, p.33). Yet, the TRIPS Agreement does not prescribe the way in which protection must be implemented, and there is diversity in national systems. The diversity means that the term 'geographical indication' serves as an umbrella term for distinctive signs that link products with their source, including subcategories of trademarks (certification/guarantee and collective

mark protection), and *sui generis* forms of protection such as protected geographical indications (PGI) and protected denominations of origin (PDO) (UNCTAD, 2014b, p.33). They are particularly valuable in distinguishing agricultural products which would otherwise be fungible, and can thus be of considerable benefit to the rural economy (Mengistie and Blakeney, 2016, p.290; Oguamanam and Dagne, 2014).

Geographical indications⁵³ are an intellectual property regime that could help harness Africa's strategic advantage in biological resources and associated traditional knowledge, and strengthen export potential (UNCTAD, 2015c). Studies and needs assessments have shown that African countries often have products whose distinctive and unique characteristics are attributed to their geographic origin, and that these products have an associated commercial reputation in the marketplace. Africa itself is an important and fast-growing market for such products. However, producers and other stakeholders involved in the value chain generally are not sharing in the benefits and, in some cases, misappropriation and misuse of the geographical origin or its reputation is taking place (Mengistie and Blakeney, 2016).

In recognition of the importance and need for an overarching strategy on geographical indications to contribute to different programmes for Africa relating to agricultural sector development and the SDGs, the African Union has adopted the Continental Strategy for Geographical Indications in Africa 2018–2023 (GISA). It does not focus on the form of legal protection, but rather encompasses both *sui generis* and trademark approaches (including collective and certification marks) to protecting geographical indications. The Continental Strategy recognizes that geographical indications are a proven tool to address both issues relating to economic development (e.g., smallholder empowerment, market differentiation and value added, local economic development promotion), and the preservation of biocultural diversity. It also recognizes that synergies can be generated by combining geographical indications with other voluntary sustainability standards, such as fair trade and organic (or the Ethical BioTrade Standard, for example). However, there are opportunities and challenges in implementing geographical indications across Africa, and focused efforts must be undertaken to ensure that their economic, environmental, social and cultural benefits are generated continent-wide.

Geographical indications are addressed differently

in the two main intellectual property blocs in Africa – ARIPO and OAPI.⁵⁴ Under the ARIPO Banjul Protocol on Marks, geographical indications can be registered as a collective or certification mark (ARIPO, 1993). An applicant can file for protection at an intellectual property office in either a contracting State, or directly with the ARIPO office, and specify the States where protection is sought (not all ARIPO members are party to the Banjul Protocol). A draft geographical indications protocol has been developed but remains to be adopted by an upcoming diplomatic conference. OAPI's Bangui Agreement provides for both collective marks for the protection of geographical names (OAPI, 1999, title I art. 2(2) and title V art 32), and for *sui generis* geographical indications (*ibid.*, annex VI). The Bangui Agreement allows for all types of goods (agricultural, natural, industrial and handicrafts) to be protected by geographical indications and provides the same level of protection for all of them – going beyond the requirements of the TRIPS Agreement. Geographical indications and collective marks registered in the OAPI register are automatically protected in all 17 member States (and any other state that may subsequently accede to it) (OAPI, 1999). Both approaches are considered complementary, not incompatible.

Ensuring that African countries can benefit from geographical indications will require, among others, linking national intellectual property systems with regional and international intellectual property systems to facilitate the protection of geographical indications outside of a specific country (Mengistie and Blakeney, 2016). An AfCFTA intellectual property protocol could play an important role in this regard, offering an initial opportunity to bridge the gap between members of ARIPO, OAPI, and the numerous African countries that are not party to either agreement or the TRIPS Agreement. Such a protocol could allow for a harmonized regional filing and protection under common rules. This would create a harmonized way for understanding the types of geographical indications and interoperability between and beyond existing systems under ARIPO and OAPI. Given the current low number of GI applications in many African countries, it does not make sense to only set up a national system without regional effects that only gets a few registrations per year. It makes more sense to set a broader registration and recognition platform with a bigger pool of countries that would attract more geographical indication filings, lower registration costs and regional protection. By pooling, more opportunities for registration are created. Such a process could be

set by mutually recognising national applications or by setting a regional register for Africa that builds on the GISA.

It could also help address situations where products that are eligible for geographical indications are spread across different African countries that are part of different intellectual property organizations or RECs by allowing protection and recognition of regional geographical indications. This would support the vision of the Continental Policy Framework for Geographical Indications (part of the GISA), which seeks an “improved enabling environment for successful [geographical indication] development in Africa in order to foster sustainable rural development and increase food security.”

5.6. Plant variety protection

African States have traditionally had reservations over private property rights for genetic resources, including agricultural plant varieties, for cultural and economic reasons (Oguamanam, 2006, pp.413, 426). However, article 27.3(b) of the TRIPS Agreement requires that plant varieties must be eligible to receive patent protection, some form of *sui generis* protection, or a combination of both. The TRIPS Agreement does not mandate a specific form of *sui generis* protection, but the International Convention for the Protection of New Varieties of Plants⁵⁵ (UPOV Convention) creates an internationally recognized system for PVP. As of 22 February 2021, UPOV has 76 members (International Union for the Protection of New Varieties of Plants, Membership, 2021). OAPI, ARIPO and SADC have all adopted international instruments on PVP, which some view as representing a distancing from the OAU's African Model Legislation for the Protection of the Rights of Local Communities, Farmers and Breeders, and for the Regulation of Access to Biological Resources (OAU Model Law) (Oguamanam, 2015).

OAPI adopted an annex on PVP in its revised Bangui Agreement, which entered into force in 2006. As the annex is considered compliant with UPOV, it became the first African regional institution to join UPOV in 2014. Given that the OAPI serves as a centralized intellectual property office for its member States, its PVP system covers the territory of its 17 members. Over two thirds of OAPI members (12 of 17) are LDCs. A recent study found that the system is not functioning as expected, as it does not fit the socioeconomic,

agricultural and market conditions prevailing in the region. The costs of implementation have been higher than the benefits realized, and many of the ‘improved varieties’ registered in the region are actually stabilized versions of traditional varieties. The farmer exchange seed system remains the main source for food grains in most OAPI countries (Coulibaly and Brac de la Perrière, 2019).

In 2015, an ARIPO Diplomatic Conference adopted the Arusha Protocol on for the Protection of New Varieties of Plants within the Framework of the African Regional Intellectual Property Organization (Arusha Protocol) (ARIPO, 2015). Although ARIPO is not a member of the UPOV Convention, the draft text of the Arusha Protocol was actively shaped by UPOV, and subsequently approved by the UPOV Council as being compliant with the 1991 UPOV Convention.⁵⁶ However, only one ARIPO member has ratified the Arusha Protocol (Rwanda, on 7 June 2019), and it will not enter into force until four members have ratified or acceded to it (ARIPO, 2019). Outside stakeholders have been quite critical of Arusha Protocol as going beyond what UPOV requires and not being in Africa's interests.⁵⁷ Over two thirds of ARIPO members (13 of 19) are LDCs and do not need to adopt PVP under TRIPS. Two ARIPO members have ratified the 1991 Convention (Kenya and the United Republic of Tanzania), while South Africa is bound by the 1978 Convention (which has more flexible provisions on farmers' rights).

In 2017, SADC has also adopted rules on PVP, namely the Protocol for the Protection of New Varieties of Plants (Plant Breeders' Rights) in the Southern African Development Community, which was adopted by its Heads of States and Governments (Masinjila and Mayet, 2018, p.5). It is based on UPOV and the OAPI and ARIPO instruments (Isiko Štrba, 2017, p.50), but is also not yet in force. It is subject to similar critiques as the OAPI and ARIPO schemes from academics, farmers' organizations and civil society stakeholders (Masinjila and Mayet, 2018; Isiko Štrba, 2017; Oguamanam, 2015).

However, *sui generis* systems have been adopted by some developing countries which take into greater account nationally relevant considerations relating to the needs of smallholder farmers and fair and equitable sharing of benefits resulting from the use of biodiversity (see Cabrera Medaglia et al., 2019). Given that the UPOV Convention is not explicitly mentioned in the TRIPS Agreement, the argument has been

made by numerous academics that these alternative systems are permissible so long as they provide for an 'effective' *sui generis* system.⁵⁸ Furthermore, LDCs are not required to adopt measures for PVP under the TRIPS Agreement until at least 2021, or perhaps longer if the waiver is extended (Munyi et al., 2016). The OAU Model Law may still be relevant in this regard.

As it is arguably premature to harmonize PVP across the continent (Isiko Štrba, 2017, p.205), AfCFTA negotiators should aim to reconcile different approaches to PVP on the continent by leaving policy space for African countries that are not members of UPOV to adopt *sui generis* PVP rules that align with domestic priorities and MEAs such as the CBD and its Nagoya Protocol, and the rights of farmers included as provided for in the ITPGRFA (FAO, 2001 at art.9), and the United Nations Declaration on the Rights of Peasants and Other People Working in Rural Areas⁵⁹ (UNDROP). African countries have significantly higher membership in the aforementioned treaties, and adherence to UNDROP, than to the UPOV Convention.

There is a need to ensure that intellectual property as a tool for sustainable development in Africa is used in a way which leads to long-term food security and access to food, the protection and dissemination of traditional knowledge on plant genetic resources, and the sharing of benefits resulting from biodiversity, rather than focusing on the needs of professional plant breeders. This flexibility would allow for greater synchronicity between BioTrade – which aims to distribute value across biodiversity-based value chains - and PVP.

5.7. Traditional knowledge and traditional cultural expressions⁶⁰

Traditional knowledge and traditional cultural expressions⁶¹ can be an important source of value and inspiration for the development of goods and services based on biological and genetic resources and ecosystems. Moreover, these tradition-based knowledge systems, skills and transmission of core values and beliefs can be a means to conserve biodiversity as well as support the livelihoods of indigenous and local communities. For example in Peru (UNCTAD, 2017a), the Kichwa communities benefit from a local benefit-sharing/business scheme modeled on the guidelines set out in BioTrade Principles and Criteria. The communities actively participate in production and commercialization of AMPIK® and

SUMAK® (which are both from medicinal plants) while receiving capacity-building programmes on good agricultural practices and forest and plant nurseries management.

Africa is home to significant traditional knowledge and traditional cultural expressions associated with its rich natural endowments. However, because traditional knowledge and traditional cultural expressions have typically evolved over generations, and through the efforts of many, they generally do not qualify for effective protection under patent or copyright law.

WIPO negotiations on protecting traditional knowledge and traditional cultural expressions as forms of intellectual property have been underway since 2010 within the IGC but have not yet reached a conclusion. The most recent WIPO General Assembly agreed that negotiations would continue in the 2020–2021 biennium, with the “objective of finalizing an agreement on an international legal instrument(s), without prejudging the nature of outcome(s), relating to [intellectual property] which will ensure the balanced and effective protection of genetic resources, traditional knowledge and traditional cultural expressions” (WIPO, 2019). The African Group has been consistent in its efforts to drive forward the negotiations as part of the Group of Like-Minded Countries, but have faced significant resistance from a number of WIPO member States located in the Global North (Oguamanam, 2020, p.151). Despite the lack of progress in negotiations, the IGC has still made substantive contributions to the international intellectual property policy landscape. This includes helping to elaborate concepts such as prior informed consent, disclosure of source or origin of genetic resources, and associated traditional knowledge in intellectual property claims, and the role of States and other stakeholders (such as indigenous and local communities) in relation to traditional knowledge and traditional cultural expressions (Oguamanam, 2018, pp.2-3).

Despite the lack of progress at the global level, some progress on protecting traditional knowledge and traditional cultural expressions has been made at the regional level, within both ARIPO and OAPI. ARIPO adopted the Swakopmund Protocol on the Protection of Traditional Knowledge and Expressions Folklore (Swakopmund Protocol) in 2010, and it entered into force on 11 May 2015 and has eight contracting states: Botswana, the Gambia, Liberia, Malawi, Namibia, Rwanda, Zambia and Zimbabwe.⁶² The protocol's

preamble emphasizes that “legal protection must be tailored to the specific characteristics of traditional knowledge and expressions of folklore, including their collective or community context, the intergenerational nature of their development, preservation and transmission, their link to a community’s cultural and social identity, integrity, beliefs, spirituality and values, and their constantly evolving character within the community concerned.”

The agreement’s purpose is twofold. First, it aims to protect traditional knowledge⁶³ holders against any infringement of their rights as recognized under the protocol. Second, it seeks to protect expressions of folklore⁶⁴ against misappropriation, misuse and unlawful exploitation beyond their traditional context. Protection is extended to traditional knowledge that is generated, preserved and transmitted in a traditional and intergenerational context, distinctively associated with a local or traditional community, and integral to the cultural identity of a local or traditional community that is recognized as holding the knowledge through a form of custodianship, guardianship or collective and cultural ownership or responsibility (either formally or informally by customary practices, laws or protocols).

The owners of the rights are the traditional knowledge holders, namely the local and traditional communities, and recognized individuals within such communities, who create, preserve and transmit knowledge in a traditional and intergenerational context. The protection granted is both positive (the right to authorize the exploitation of the traditional knowledge) and defensive (the right to prevent anyone from exploiting the traditional knowledge without prior informed consent). Fair and equitable sharing of the benefits arising from the commercial or industrial use of the knowledge, as determined by mutual agreement between the parties, is part of this protection. The protocol goes to state “the right to equitable remuneration might extend to non-monetary benefits, such as contributions community development, depending on the material needs and cultural preferences expressed by the traditional or local communities themselves”.

Regardless of the mode or form of expression, protection is extended to expressions of folklore that are the products of creative and cumulative intellectual activity, such as collective creativity or individual creativity where the identity of the individual is unknown; and characteristic of a community’s cultural identity and traditional heritage and maintained, used or developed by such community in accordance with

the customary laws and practices of that community. The Protocol further provides that authorization to access protected traditional knowledge associated with genetic resources does not imply authorization to access the genetic resources themselves.

The owners of the rights are the indigenous and local communities to whom the custody and protection of the expressions of folklore are entrusted in accordance with the customary laws and practices of those communities; and who maintain and use the expressions of folklore as a characteristic of their traditional cultural heritage. The protection granted is primarily against acts of misappropriation, misuse and unlawful exploitation, but States are also to provide adequate and effective legal and practical measures to ensure that equitable remuneration or benefit-sharing takes place if there is legal use or exploitation for gainful intent. It should be noted that the type of protection offered by the Protocol can run in parallel with copyright protection if originality, expression and fixation criteria are met. The main stumbling block for protection of traditional cultural expressions by copyright has been the fixation criterion plus determination of the exact title holders, which in most cases are collective actors.

The Swakopmund Protocol also provides for regional protection of traditional knowledge and expressions of folklore, stating that eligible foreign holders must enjoy the same level of benefits of protection as nationals, taking into account the customary laws and protocols applicable. ARIPO may be entrusted with the task of settling cases of concurrent claims from communities of different countries, and will make use of customary law, local information sources, alternate dispute resolution mechanisms and any other practical mechanisms that may prove necessary.

The Implementing Regulations allow for the registration of transboundary traditional knowledge and transboundary expressions of folklore. Although protection under the Swakopmund Protocol is not subject to any formality, in the interests of transparency, evidence and the preservation of traditional knowledge, the Protocol does encourage the maintenance of national and regional registers or other records where appropriate, subject to relevant policies, laws and procedures and the needs and aspirations of the traditional knowledge holders concerned. Such registers may be associated with specific forms of protection but must not compromise the status of undisclosed traditional knowledge.

ARIPO maintains a traditional knowledge register and an expressions of folklore register.

The 2015 revision of the Bangui Accord (OAPI, 2015) (not yet in force) enlarges the mission of the OAPI to include promoting the protection of traditional knowledge and traditional cultural expressions. The Bangui Accord addresses traditional cultural expressions within annex VII on copyright law, defining a 'work' subject to protection as including traditional cultural expressions, and protecting derived works that involve traditional cultural expressions. In 2015, OAPI's Director General indicated that an additional legal instrument will be developed to more comprehensively address the subjects of traditional knowledge, traditional cultural expressions and cultural heritage (OAPI Magazine, 2015).

A third case is that of South Africa, which is not a member of ARIPO nor OAPI, and has a well-developed system for the protection of traditional knowledge. Although it has proven challenging to implement, "many positive features of the evolving structure can serve as a credible and progressive model for other countries desirous of creating a protection regime..." (Bagley, 2018, p.1). The South African 1978 Patent Act contains provisions on patents relating to bioprospecting. The 2005 Patents Amendment Act added definitions for "genetic resource", "indigenous biological resource", "traditional knowledge" and "traditional use". These are applied in the context of section 30 of the Patent Act, which defines the form for a patent application. Specifically, section 30 includes a proviso requiring every applicant who files an application for a patent accompanied by a complete specification to lodge with the registrar a statement in the prescribed manner stating whether or not the invention for which protection is claimed is based on or derived from an indigenous biological resource, genetic resource, or traditional knowledge or use before acceptance of the application (South Africa, 2005 at section 30(3A)).

Upon receiving this statement, the registrar will call upon the applicant to furnish proof in the prescribed manner as to his or her title or authority to make use of the indigenous biological resource, genetic resource, or of the traditional knowledge or use, which would be a bioprospecting permit under the National Environmental Management: Biodiversity Act (NEMBA) (South Africa, 2005 at section 30 (3B)). The patent can be revoked if the declaration contains a false statement or representation which is material

and which the patentee knew or ought reasonably to have known to be false at the time when the statement or representation was made (South Africa, 2005 at section 61(1)(g)). Although the patent office is not a formal Nagoya Protocol compliance checkpoint, "such linking of a patent application disclosure requirement with evidence of ABS makes the patent office a de facto compliance checkpoint".

Adopting provisions on traditional knowledge and traditional cultural expressions within an AfCFTA intellectual property protocol could help align relevant regulatory processes in ARIPO and OAPI, ensure synergy with the future work of PAIPO, and establish a common approach to implementing CBD article 8(j) across the continent.⁶⁵ Article 5(5) of the Nagoya Protocol strengthens the commitment made in article 8(j), obliging each party to "take legislative, administrative or policy measures, as appropriate, in order that the benefits arising from the utilization of traditional knowledge associated with genetic resources are shared in a fair and equitable way with indigenous and local communities holding such knowledge [based on mutually agreed terms]." Adopting such provisions would further the implementation of the African Nature Convention, which calls for parties to take legislative and other measures to ensure that traditional rights and IPRs of traditional communities including farmers' rights are respected; that access to indigenous knowledge and its use be subject to the prior informed consent of the concerned communities and to specific regulations recognizing their rights to, and appropriate economic value of, such knowledge (African Nature Convention, 2003 at art.17(1) and (2)).

Traditional knowledge and traditional cultural expressions also exist across national boundaries in Africa due to the distribution of communities across national boundaries. This offers one clear rationale for cooperation at the continental level on the question of its protection under intellectual property law through the AfCFTA Agreement. This would be in keeping with article 11(2) of the Nagoya Protocol, which states that "Where the same traditional knowledge associated with genetic resources is shared by one or more indigenous and local communities in several parties, those parties shall endeavour to cooperate, as appropriate, with the involvement of the indigenous and local communities concerned, with a view to implementing the objective of this Protocol." It could rectify some important issues in Africa, as "[n]

eglecting cross-border cooperation, especially at the regional level, can increase conflict over ownership and benefit[s] from [traditional knowledge], and reduce capacity to negotiate benefit sharing agreements with third parties ... Pursuing cross-border cooperation mainly through reciprocal bilateral agreements with other states ... may create a patchwork of very inconsistent approaches”.

Important work relevant to traditional knowledge and traditional cultural expressions has been carried out under the aegis of the United Nations Educational, Scientific and Cultural Organization (UNESCO), such as the 2001 UNESCO Universal Declaration on Cultural Diversity (UNESCO, 2001) and the 2003 Convention for the Safeguarding of the Intangible Cultural Heritage (CSICH) (UNESCO, 2003).⁶⁶ The CSICH defines ‘intangible cultural heritage’ as:

“the practices, representations, expressions, knowledge, skills – as well as the instruments, objects, artefacts and cultural spaces associated therewith – that communities, groups and, in some cases, individuals recognize as part of their cultural heritage. This intangible cultural heritage, transmitted from generation to generation, is constantly recreated by communities and groups in response to their environment, their interaction with nature and their history, and provides them with a sense of identity and continuity, thus promoting respect for cultural diversity and human creativity.” (UNESCO, 2003 at art.2(1)).

This includes oral traditions and expressions, performing arts, social practices, rituals and festive events, knowledge and practices concerning nature and the universe, and traditional craftsmanship, where they are compatible with existing international human rights instruments, the requirements of mutual respect among communities, groups and individuals, and of sustainable development (UNESCO, 2003 at art.2(2)) (Lenzerini, 2011, p.107).

Intangible cultural heritage is recognized as potentially beneficial for biodiversity conservation and the sustainable management of biological resources (UNESCO, 2003). Business models that tie into maintaining these traditions for future generations can be developed in tandem with BioTrade activities such as the production of traditional goods or ecotourism services. Several cases in Africa prepared by UNESCO demonstrate how intangible cultural heritage can contribute to BioTrade, including ‘Marula

Festivals in Southern Africa’, ‘Practices and know-how concerning the Argan Tree in Morocco’, and ‘PROMETRA and Promotion of Traditional Medicine in Uganda’, and ‘Traditions and practices of the Kayas in the Sacred Forests of the Mijikenda in Kenya’ (Sustainable development toolbox, 2021).

An AfCFTA intellectual property protocol that addresses traditional knowledge and traditional cultural expressions could also strengthen the African Group’s position in international negotiations at the IGC. It would establish a globally significant example of a legal instrument that addresses the protection of traditional knowledge and traditional cultural expressions that would need to be considered by WIPO member States at the IGC. Furthermore, a host of African States are not members of ARIPO or OAPI and have significant latitude to determine how they wish to provide protection, if at all. A common continental regulatory approach on traditional knowledge will strengthen the application of principles 5 and 6 of the BioTrade P&C, providing clarity to businesses that want to respect the rights of indigenous and local communities when accessing or utilising their knowledge.

5.8. Investment

The AfCFTA presents a unique opportunity to develop a transparent and predictable regulatory environment that draws from the many existing processes and institutions on the continent, thus underpinning investment possibilities to boost intra-African investment flows and promoting the global attractiveness of African economies. There is an important role for investment in achieving sustainable development and stimulating BioTrade. Agenda 2030 and the Addis Ababa Action Agenda both recognize the importance of mobilizing adequate financial flows for sustainable development, including through foreign direct investment (FDI). Significant foreign and domestic investment will be required to meet the ambitions of Agenda 2063 (UNECA et al., 2019 p.173). However, it is important to ensure that FDI is carried out in a manner that is environmentally, socially and economically sustainable. FDI is an instrument to promote sustainable development, not a goal in itself (PAGE, 2018). An investment protocol, “drawing on the Pan-African Investment Code (PAIC) and other recent regional and bilateral initiatives, should balance the interests of private investors and the policy space promoting regional integration. Ultimately, it should provide countries with the tools necessary

to attract investment and harness it for sustainable development.” (UNECA et al., 2019 p.173).

In order to structure FDI to achieve sustainable development, it is important to appropriately design and implement international investment agreements (IIAs); treaties that aim to promote and protect foreign investment under international law that can take the form of free-standing agreements or as chapters in FTAs. IIAs are not guaranteed to lead to sustainable development, as demonstrated by the sizable number of investment disputes brought against governments that have environmental and social dimensions.⁶⁷ A global rebalancing in the international investment law regime is currently taking place.⁶⁸ Many new and progressive ideas have been put forward in the past decade, including in the 2013 Commonwealth Guide (VanDuzer et al., 2012), the 2015 UNCTAD Investment Policy Framework for Sustainable Development (UNCTAD, 2015d) , and the 2016 G20 Guiding Principles for Global Investment Policy-Making (OECD, 2016, Annex 3), among others. This section of the paper addresses how an appropriately designed AfCFTA protocol on investment could help promote the development of goods and services in line with the BioTrade P&C.

Africa is at the forefront of the transformation of international investment law, in part because:

“the case law statistics on investment disputes and claims strongly suggest that some BITs [bilateral investment treaties] signed by African countries are skewed in favour of investors, posing a financial and technical burden on governments, as well as a cap on their policy space ... The focus of BITs has mainly been towards protecting investors and their investments. Though numerous BITs are in force and many have been signed, it is widely accepted that BITs alone do not bring development gains and that there is no definitive evidence that these have attracted FDI.” (UNECA, 2015, p.44)⁶⁹

The first significant development in the past decade was the 2012 SADC Model Bilateral Investment Treaty (SADC, 2012), which aims to enhance harmonization of investment regimes in the region (Mbengue and Schacherer, 2017, p.414, 419), and encourage and increase investments “that support the sustainable development of each Party, and in particular the Host State where an investment is to be located (art. 1 SADC, 2012).”

In 2016, the African Society of International Law (AFSIL

n.d.) adopted the Principles on International Investment for Sustainable Development in Africa (AFSIL, nd), which consists of a series of recommendations to recalibrate how international investment law is applied to the African continent (Köppen and d’Aspremont, 2017). Relevant principles to consider in moving forward include: 1) Foreign investment must contribute to the sustainable development of African states; 2) States have the sovereign right to regulate foreign investment on their territory in order to meet SDGs and for legitimate public policy objectives. This right must not be subordinated to the interests of investors; 3) States must facilitate, promote and protect foreign investment that enhance the sustainable development within their territories; 4) Increasing the quantity and quality of foreign investment requires a positive legal and regulatory environment including a transparent, accountable and participatory legal framework; 5) Investment agreements and laws should seek an overall balance of the rights and obligations between States and investors; 6) Investors must comply with the applicable laws and regulations of both the home and the host state. Host States should not lower their environmental or other legal standards as incentives to attract investments; 7) International and domestic investment regimes should ensure the observance by investors of international best practices and applicable instruments of responsible business conduct and corporate governance; 9) Investors shall not exploit or use local natural resources to the detriment of the rights and interests of the host State; 10) Investors must respect the protection of internationally and regionally proclaimed human rights; and 14) African states should ensure more effective cooperation and coordination with respect to investment policies at the continental level.

Building a more predictable legal framework for investment will require further coordinating investment policies at the continental level. A non-binding guiding instrument on investment -- the draft PAIC -- was elaborated under the auspices of the African Union Commission, and adopted by the Specialized Technical Committee on Finance, Monetary Affairs, Economic Planning and Integration of the African Union in October 2017 (African Union, 2016c). Although the PAIC is non-legally binding, (African Union, 2016b)⁷⁰ it was the result of nearly a decade of work and likely have a considerable impact on negotiations on the AfCFTA protocol on investment (Mbengue and Schacherer, 2017, p.446). The PAIC also notes that “Member States may agree that this Code could be reviewed to become a binding instrument and to

replace the intra-African bilateral investment treaties (BITs) or investment chapters in intra-African trade agreements after a period of time determined by the Member States or after the termination period as set in the existing BITs and investment chapters in the trade agreements.”⁷¹

The PAIC contains innovative features; reformulating traditional treaty language, adding new provisions and omitting others (Mbengue and Schacherer, 2017, p.420). The preamble recalls Agenda 2063 and recognizes the right of African Union member States to regulate all aspects relating to investments within their territories to meet national policy objectives and promoting sustainable development objectives, while seeking to achieve an overall balance of rights and obligations between member States and investors. It also notes that the PAIC takes into account the SDGs and the UNCTAD Investment Policy Framework for Sustainable Development. It establishes exceptions to the standard of most-favoured-nation treatment, stating that “Any regulatory measure taken by a Member State that is designed and applied to protect or enhance legitimate public welfare objectives, such as... the environment, does not constitute a breach of the Most-Favored-Nation principle” This exception is also repeated in the context of national treatment. Furthermore, in relation to national treatment, “States may, in accordance with their respective domestic legislation, grant preferential treatment to qualifying investments and investors in order to achieve national development objectives.” One example of such preferential treatment would be favourable treatment addressed to the needs of designated disadvantaged persons, groups or regions (Mbengue and Schacherer, 2017, p.428).

In support of the SPS Protocol and the AfCFTA SPS annex, the PAIC includes general exceptions noting that it “shall not prevent any Member State from adopting or enforcing measures relating to the protection of ... animal or plant life or health... subject to the requirement that these measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between investors in like circumstances or a disguised restriction on investment flows” and that “Member States shall not be required to change nor relax their appropriate level of protection of... animal or plant life or health in pursuit or attraction of investments.”

Development-related issues are explicitly addressed, including provisions for performance requirements that would promote the development of BioTrade value

chains and businesses. For example, the PAIC holds that “Member States may support the development of local, regional and continental industries that provide, inter alia, up-stream and down-stream linkages and have a favourable impact on attracting investments and generating increased employment in Member States.” In addition, PAIC, art. 17(2) establishes that:

“Member States may introduce performance requirements to promote domestic investments and local content”⁷²... inter alia: a. measures to grant preferential treatment to any enterprise so qualifying under the domestic law of a Member State in order to achieve national or sub-national regional development goals; b. measures to support the development of local entrepreneurs; c. measures to enhance productive capacity, increase employment, increase human resource capacity and training, research and development including of new technologies, technology transfer, innovation and other benefits of investment through the use of specified requirements on investors; and d. measures to address historically based economic disparities suffered by identifiable ethnic or cultural groups due to discriminatory or oppressive measures against such groups prior to the adoption of this Code.”

The PAIC places numerous obligations upon investors, including on subjects such as frameworks for corporate governance, socio-political matters, bribery, corporate social responsibility, and natural resources, business ethics and human rights. Investor obligations can be effectively enforced by, for example, complementing them with ‘denial of benefits’ clauses, or explicitly recognizing the right of the host state to bring a counterclaim in investor-state dispute settlement proceedings. In regard to obligations as to the use of natural resources, investors must not exploit or use local natural resources to the detriment of the rights and interests of the host State, and must respect the rights of local populations, and avoid land grabbing practices vis-à-vis local communities. This is also an area with linkages to BioTrade, particularly its principles 1 (conservation), 2 (sustainable use) and 7 (clarity on right to use and access to natural resources). The PAIC calls for the enforcement of the TRIPS Agreement and other relevant international instruments, but also holds that:

“Member States and investors shall, in accordance with generally accepted international legal standards and best practices, protect traditional knowledge systems and expressions of culture as well as ge-

netic resources that are sought, used or exploited by investors, or are otherwise relevant to their contracts, practices and other operations in such Member States; [and] Member States shall provide, within national laws, principles for the patenting of biological materials or of traditional knowledge systems and expressions of culture for the protection of local communities in such Member States.” (PAIC, art. 25(3) and (4)).

This has clear links to the implementation of the Nagoya Protocol, including rules on prior informed consent, mutually agreed terms, and compliance. For biocultural protocols to have any effect in this context, they would need to be recognized in national legal frameworks and harmonizing their recognition could be quite significant.

Obligations on environmental protection are also included in the PAIC, namely the obligation upon Member States “to ensure that their laws and regulations provide for environmental protection, and that Member States shall not encourage investment by relaxing or waiving compliance with domestic environmental legislation...” In carrying out their activities, investors must “protect the environment and where such activities cause damages to the environment, take reasonable steps to restore it as far as possible.” Finally, member States and investors must carry out Environmental Impact Assessments (EIA) in relation to investments (PAIC, art.37).

In sum, the PAIC aims to rebalance international investment law so that investments are only protected when they foster sustainable development in African Union member States, and the host State in particular (Mbengue and Schacherer, 2017, p.421). Rather than only seeking to protect investments, as traditional investment agreements do, it seeks first to promote investments, second to facilitate investments, and lastly to protect investments. The PAIC contains an enterprise-based definition of investments, which is presented in the SADC Model BIT as the most beneficial option for sustainable development. Beyond the basics of an investment (commitment of capital or other resources, expectation of gain or profit, assumption of risk), the PAIC also calls for a significant contribution to the host State's economic development, establishing that a covered investment has to have a strong relationship to the development of the host State's economy. Although rare in IIAs, exceptions to national treatment were included to ensure that African States are able to pursue national

development objectives without breaching the national treatment standard. Although there are a growing number of IIAs that contain prohibitions of performance requirements, performance requirements can serve as a tool for economic and social development for the host state and the PAIC includes such provisions in order to encourage African Union member States to use them as policy measures. In regard to the reform of international investment law, the most novel features of the PAIC pertain to the inclusion of direct obligations on investors, and shared obligations between investors and States.

In keeping with UNCTAD's recommendation to harmonize new IIAs with the broader common concerns of a society (e.g., the conservation of natural resources and environmental protection, social well-being), the PAIC's chapter on investment-related issues contains aspects related to achieving sustainable development in African countries – such as ensuring that investments are not harmful to the environment and bringing socioeconomic benefits to host States. The commitment to ensuring that African traditional knowledge and genetic resources receive adequate protection creates a strong link to the CBD and Nagoya Protocol, as well as any potential agreement from the WIPO IGC or clauses in an AfCFTA protocol on intellectual property. Particularly, value chains for the production of high-value food, cosmetic and pharmaceutical products especially offer opportunities for direct investments into biodiversity conservation by providing countries with benefit-sharing mechanisms and opportunities to contribute to local development and the conservation of Africa's biodiversity and the many ecosystems under threat (Promoting European-African business partnerships for biodiversity conservation, 2021). For sustainable biodiversity-based businesses and value chains to succeed (including BioTrade ones), any AfCFTA protocol on investment should take into account PAIC's attempt to strike a fair balance between investment protection and public interests; between attracting foreign investment and meeting the long-term goal of African countries for sustainable development (Promoting European-African business partnerships for biodiversity conservation, 2021). Africa will continue to attract foreign investment in the coming years and decades due to its abundant natural resources, but investments must be made in a responsible way that further the interests and needs of African societies for sustainable development.

The investment protocol can be underpinned by measures on investment promotion and facilitation, and investment protection (UNECA et al., 2019, p.174). African countries should collaborate and build institutions to reduce the transaction costs related to cross-border investment, and carefully define standards for investment protection to promote clarity for both investors and policymakers. African countries can also introduce legally binding obligations on investors to match their privileges with responsibilities on translating capital formation into tangible and sustainable development outcomes. With sustainable development as a guiding principle, countries should focus their efforts on preventing a regulatory race to the bottom in a bid to attract investments, and on helping investors meet their additional obligations. As interpretation has often been at the heart of investor-State disputes, the AfCFTA offers an opportunity to minimize interpretational issues by adopting definitions that enhance clarity, thus reducing room for expansive interpretations. AfCFTA parties should therefore consider clarificatory text on the relationship between investments and the application of relevant international and domestic environmental laws, thus helping to align investment with BioTrade activities. Careful analysis is also required before deciding whether IPRs would be covered by the investment protocol, or carved out due to the view that satisfactory investor protection is already provided in the intellectual property protocol (UNECA et al., 2019).

5.9. Competition policy

In the COVID-19 “new normal”, market concentration will likely increase. This could pose a risk to BioTrade value chains, many of which are founded on the efforts of SMEs and MSMEs. With an appropriate legal framework, market concentration can be prevented by competition authorities through a robust merger control regime. To effectively address cross-border anticompetitive practices, and regional and global mergers, it would be valuable to develop, improve and implement regional competition frameworks and rules (UNCTAD, 2020b, p.100).

The possible impact of the AfCFTA on African competition regimes has not received much attention to date, even though a competition protocol could create another layer of supra-national regulation

across Africa. A competition policy protocol at the African Union level is envisaged in order to accord the combined market the opportunity to develop a continent-wide competition policy. There is a need to consider how the competition protocol manages opportunities created in other member States of the AfCFTA, taking care of business interests by creating a level playing field which at the same time tackling cross border anti-competitive practices.⁷³

The ARIA IX report raised important questions as to not only what the Competition Protocol could mean in practice, but also the need for it in the first place. One key message contained in the report is that “Africa’s competition regime remains patchy. Only 23 countries have both competition laws in force and competition authorities to enforce them, a further 10 have laws but no authority, 4 have competition legislation in an advanced stage of preparation, and 17 have no competition law” (UNECA et al., 2019). While no firm position is taken on the structure of the regime, the report recommends that the future competition protocol should provide for a mandatory merger control regime for those transactions with an appreciable effect on trade within the AfCFTA (UNECA et al., 2019, pp.162-163).

The report also provides some policy recommendations on the following issues to be considered as part of a prospective competition protocol: 1) the protocol must cover the main substantive competition areas; 2) the protocol should embrace consumer protection in a dedicated chapter; and 3) the protocol’s enforcement arrangements may take a number of forms, including a supranational AfCFTA competition authority, a competition cooperation framework, or a sequential approach in which a supranational authority follows a cooperation framework. A continental procurement policy can complement the competition protocol by ensuring predictability, transparency and harmony in procurement policies and produce competitively tendered government procurement, while preserving policy space for legitimate public policy objectives. The relationship between the AfCFTA investment and competition protocols needs to be considered, which could be based on the PAIC’s call for member States to promote, maintain and encourage competition, prohibit anti-competitive investment conduct, and adopt clear and transparent competition rules (UNECA et al., 2019).

6. CONCLUSION

Since the development and entry into force of the AfCFTA Agreement, African countries have focused on boosting intra-African trade to eradicate poverty and foster sustainable and inclusive development, consistent with Agenda 2063 and the SDGs. With the promotion of BioTrade in mind, this study has: 1) discussed the links between trade and environment; 2) analysed AfCFTA Agreement provisions on trade in goods and services, including tariffs, NTBs, SPS measures, and trade facilitation; 3) reflected on the potential role of an intellectual property protocol in supporting BioTrade, including patents, geographical indications, PVP, and traditional knowledge and traditional cultural expressions; 4) discussed the role of a potential investment protocol; and 5) considered the role of a potential competition protocol. These five aspects of the study are discussed below.

In addition to requiring States to implement treaty commitments in good faith, the AfCFTA Agreement recognizes the existing rights and obligations of parties with respect to one another under other agreements to which they are parties. These other agreements include the CBD, the Nagoya Protocol, CITES, the ITPGRFA and the African Nature Convention. The AfCFTA Agreement also reaffirms the right of parties to regulate within their territories and the flexibility to achieve legitimate policy objectives in areas including environment and the promotion and protection of cultural diversity (African Union, 2018 at preamble, para.8).

The African Nature Convention has the fostering of conservation and sustainable use of natural resources as one of its objectives, and its guiding principles all relate to the link between environment and development.⁷⁴ Per art.12, the creation of conservation areas is mandatory, but these can be managed for the sustainable use of natural ecosystems (e.g. managed resource protected areas).⁷⁵ In the context of conserving species and their habitats within the framework of land-use planning and sustainable development, the African Nature Convention also calls for providing for fair and equitable access to genetic resources, on terms mutually agreed between the providers and users of such resources; and providing for the fair and equitable sharing of benefits arising out of biotechnologies based upon genetic resources and related traditional knowledge with the providers of such resources (African Nature Convention, 2003

at art. 9(2)(j) and (k)). The link between sustainable development and natural resources is elaborated, with parties obliged to ensure that conservation and management of natural resources are treated as an integral part of national and/or local development plans, and that in the formulation of all development plans, full consideration is given to ecological, as well as to economic, cultural and social factors, in order to promote sustainable development (African Nature Convention, 2003 at art.14). Lastly, art. 17(3) of the African Nature Convention calls for parties to take the measures necessary to enable the active participation of local communities in the process of planning and management of natural resources upon which they depend, with a view to creating local incentives for the conservation and sustainable use of these resources.

Enhancing the relationship between MEAs and the international trading system requires examining mechanisms that attempt to enhance synergies and increase mutual supportiveness between trade and environment. Most proposals on the interface between WTO rules and MEAs aim at enhancing synergies by improving the exchange of information and strengthening coordination. While the environmental objectives of MEAs have received broad public support, it has been increasingly recognized that MEAs involve important economic and developmental issues, and that compliance costs may differ widely across developed and developing country parties, thus raising issues related to burden sharing and equity. In this context, by attempting to give full consideration to principles such as equity and common but differentiated responsibilities, and positive measures promoting the participation and international cooperation needed for the implementation of MEAs.

To promote BioTrade in the continent, it will be important to focus on generating synergies between existing international and regional MEAs, implementing existing commitments under the AfCFTA Agreement, and negotiating future protocols under phase II of the negotiations. An institutional/administrative arrangement on trade, environment and sustainable development could be devised to examine, better comprehend, and further develop the relationship between trade and the environment for sustainable development in African could be established and runs in parallel to the finalisation of phases I, II and III of the AfCFTA. Also mentioned above, room also exists under the AfCFTA Agreement to negotiate additional protocols so long as they are linked to the objective

of promoting intra-African trade, which could include a protocol on trade and environment that addresses trade in biological and genetic resources, among others.

Addressing issues relating to trade in goods will be critical in developing BioTrade on the continent. Special efforts are needed to liberalize trade in environmental goods to spearhead efforts on improving environmental conservation and sustainable use practices. The completion of Phase I negotiations on tariff commitments and rules of origin⁷⁶ is urgently needed (UNECA et al., 2019, p.xii). In developing tariff proposals, parties to the AfCFTA Agreement should reflect on how to enable BioTrade and the creation of regional and continental biodiversity-based value chains through targeted tariff reductions. UNCTAD's work on BioTrade-relevant HS codes can help identify relevant tariff lines for this purpose. In addition, cooperation on developing standards appropriate to the African context can be pursued through African institutions, including AFRAC or ARSO, to simplify sanitary and phytosanitary requirements, and reduce technical barriers to trade.

With appropriate tariff reductions and general cooperation towards the elimination of NTBs, trade facilitation measures like a NTB reporting mechanism, a simplified trade regime for small traders, and capacity-building, can be used to their full extent to increase intra-African flows of BioTrade goods and the creation of regional and continental value chains (UNECA et al., 2019, p.xiii), thereby supporting enhanced socioeconomic development, diversification and industrialisation across Africa. To do so, there is a need for the identification, categorization and potential progressive elimination of NTBs applicable to biodiversity-based products, and more specifically to BioTrade products in the African context.

Negotiations on liberalizing trade in services can be complex and require addressing different issues from those related to the liberalization of trade in goods. Countries must negotiate a broad range of complex policies and underlying public policy concerns governing market access and regulating service provision, especially in sectors prioritised for negotiation and liberalisation. In most countries, there is not one single institution overseeing all policies governing trade in services; rather, responsibility is split among different ministries and agencies. In parallel, States will also identify their external and internal interests in services sectors and thus decide

which sectors to liberalize and which ones to protect from foreign competition. To maximize benefits for BioTrade will require coordination among a wide range of stakeholders.

In moving forward, it will be important to focus on fact-based trade policymaking to realise the potential of trade and avoid its more adverse outcomes (Stilwell, 2005, p.40). This is particularly the case in negotiations on IPRs and investment. The traditional view has been that stronger IPRs increase welfare and stimulate innovation, and strong protection of investor rights will automatically stimulate FDI that supports economic growth in developing countries. The evidence suggests either neutral or negative outcomes in both cases. As noted in Baker et al. (2017), "whatever the weaknesses and socially malignant outcomes that arise out of poorly designed [IPRs] in developed countries, they enormity of the problem their adoption causes in developing countries is much higher. The *sine qua non* of development is widespread and rapid learning and the current [IPRs] system works expressly to limit the capacity of developing countries to adopt such a path" (Baker et al., 2018, p.70).

As this study notes, options exist for increasing the level of socially beneficial innovation and the social benefits that arise from innovation that occurs. As negotiators develop a protocol on intellectual property, they should keep in mind that harmonizing IPRs across the continent at the highest possible level of intellectual protection is not optimal, and that "A substantial recalibration of the international approach to [IPRs] is required to ensure the advancement of the standards of living and well-being of the entire world—and to ensure consistency with development objectives and obligations and to support those innovations that have the highest value in terms of their contribution to addressing the challenges facing our global society" (Baker et al., 2018, p.70).

ARIPO and OAPI signed a four-year cooperation agreement in February 2017, which aims to deepen the relationship between the two organizations, establishes a comprehensive cooperation framework in intellectual property matters. In the new agreement, OAPI and ARIPO have agreed to: work towards the harmonization of their systems, exchange documentation and technical information, and mutually cooperate in the development of training and joint capacity building programs including user awareness. The agreement also requires that either party offers technical assistance to the other when

such assistance has been requested. Importantly in this context, OAPI and ARIPO have agreed to take common positions on major IP issues affecting their member States at continental and international levels. The points mentioned in the paragraphs immediately above are important to consider when carrying out this work.

In regard to IIAs:

“the purpose appears to be more about protecting the economic position of the major capital-exporting states than it is about encouraging investment flows ... the empirical research is mixed on whether the treaties actually do encourage investment or affect investment flows in a significant way, beyond isolated cases. Different studies have found and failed to find connections between the treaties and investment flows... This mixed evidentiary record demonstrates ... that there is at best conflicting evidence that investment treaties actually encourage foreign investment and, in turn, that any signalling effect of the treaties has an actual effect on investor decision-making about where to commit capital. As such, and in light of the major fiscal risks assumed by states under the treaties, it is dubious to assert today that the treaties are a vehicle to encourage actual investments... Most states committed themselves to what are arguably the most financially risk-laden international obligations in the world today without any credible empirical basis for the belief that the treaties would achieve their stated purpose” (Van Harten, 2016).

Moving forward, the PAIC and other instruments mentioned in this study establish a sound basis for the development of an investment protocol that which strikes a better balance between investor protection and the rights of governments to regulate in the public interest for sustainable development. One approach could be to create a list of potential WTO and AfCFTA-compatible performance requirements to promote BioTrade.

The competition protocol should cover the main substantive competition areas, embrace consumer protection in a dedicated chapter, and develop enforcement arrangements – whether a supranational competition authority, a competition cooperation framework, or a sequential approach in which a supranational authority follows the cooperation framework. The relationship between the AfCFTA investment and competition protocols will need to be

considered, which could be based on the PAIC’s call for member States to promote, maintain and encourage competition, prohibit anti-competitive investment conduct, and adopt clear and transparent competition rules (Van Harten, 2016). Given the important role of MSMEs in BioTrade, ensuring competition will be essential for generating benefits for communities and the environment.

Integrated assessments should be carried out for the further consideration of existing and future trade measures under the AfCFTA Agreement in order to consider “the economic, environmental and social impacts of trade measures, the linkages between these effects, and [aim] to build on this analysis by identifying ways in which positive effects can be enhanced.” Assessments can be conducted before, during or after negotiations, and can focus on implications for a sector (such as those sectors relevant to BioTrade), a country or other geographic region, or a particular social or environmental system, with the ultimate goal of enabling countries to implement integrated policies that optimise the sustainable development gains from economic change. Such assessments of trade liberalisation and trade policy form an essential tool for gathering information about the real and potential contributions of trade to sustainable development. It is essential to the long-term legitimacy of the trading system for African countries to clearly identify the relationship between trade and national development priorities, and to assess the impact of past and proposed future trade liberalisation (Stilwell, 2005, p.67; UNEP, 2001). The agenda no longer needs to be set and driven from the top down, with the narrow economic interests of developed countries in mind.

6.1. Key recommendation

- Specific trade and environment considerations and recommendations, including on the sustainable trade of biodiversity-based products and services, including BioTrade, need to be made explicit in subsequent phases of the economic integration process. This would enable African countries to seize the opportunities for local value addition while capturing the growing consumer preference for biodiversity-friendly products and services.

6.1.1. Challenges

- Unharmonized or burdensome non-tariff measures (NTMs) can dramatically restrict market entry, limiting the ability of countries to reap economic, social

and environmental gains from trade in sustainably produced biodiversity-based goods and services. There is a need for an identification exercise on key NTMs affecting biodiversity-based products and services, and BioTrade in particular, so that these may be addressed by novel mechanisms within the framework of the AfCFTA Agreement.

- The IPR institutional and legal landscape in Africa is complex, and IPR issues may be challenging to negotiate at a continental level.
- The provision of cross-border business and financial services is very complex in Africa and further analysis is also needed if countries aim to seize the development opportunities generated by the trade of sustainably produced biodiversity-based products and services.

6.1.2. Opportunities

Short/medium term:

- An institutional/administrative arrangement to examine, better comprehend and further develop the relationship between trade, environment, and sustainable development in Africa could be established and run in parallel to the finalisation of phases I and II of the AfCFTA negotiation process.
- Tariff reductions will be critically important to enabling and promoting the trade of sustainably produced goods and services with local value addition such as BioTrade products and services and could be informed by UNCTAD's work on BioTrade-relevant HS codes as well as on the work carried out by UNCTAD's Trade Analysis Branch.
- The reduction of inter-African NTBs, including through continental standards that are responsive to the African context, would also contribute to the promotion of value-added products and services, including those aligned with the BioTrade P&C.
- Implementation and effective use of the AfCFTA trade facilitation provisions found in the Protocol on Trade in Goods and the Trade Facilitation Annex could enable further trade in biodiversity-based products and BioTrade in particular. Specific support

for MSMEs could have a direct positive impact on BioTrade value chains, as they are among the ones that face the biggest hurdles when exporting.

- Developing capacity on the application of voluntary sustainability standards and guidelines (including on BioTrade), allowing African producers to access higher value global markets.
- The intellectual property protocol provides an opportunity to establish basic principles on a set of IPR, and potentially on related biodiversity and traditional knowledge matters, that can be favourable to African countries and actors involved in the trade of sustainably sourced products, including those aligned with BioTrade and its Principles and Criteria.
- Negotiations on intellectual property should be expedited and a new focus placed on bringing the Pan-African Intellectual Property Organization to life, as it is already constitutionally tasked with creating and harmonizing intellectual property standards in the African Union.
- Progressively liberalizing business and financial services relevant to the environment could help MSMEs and SMEs, as well as large enterprises, to gain access to expertise and capital from other African countries to develop BioTrade activities and regional value chains.

Longer term:

- Calling for a mandate to develop an additional legal instrument on cooperation on trade, environment and sustainable development building for example on the African Nature Convention and African Union Guidelines for the Coordinated Implementation of the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Resulting from their Utilization. Such an instrument could specifically address and enable trade in biological and genetic resources, among others. The nexus between trade and environment, including BioTrade, should also be incorporated into existing instruments and those under negotiation.

ANNEX I

African Regional Economic Communities

RTA Name	Coverage	Type	Date of entry into force	Status	Signatories
Southern African Customs Union (SACU)	Goods	Customs union	15 Jul 2004	In force	Botswana, Eswatini, Lesotho, Namibia and South Africa
Economic Community of West African States (ECOWAS)	Goods	Customs union	23 Aug 1995	In force	Benin, Burkina Faso, Cabo Verde, Côte d'Ivoire, the Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone and Togo
Economic and Monetary Community of Central Africa (CEMAC)	Goods	Customs union and monetary union	24 Jun 1999	In force	Cameroon, Central African Republic, Chad, Congo, Equatorial Guinea and Gabon
West African Economic and Monetary Union (WAEMU)	Goods	Customs union and monetary union	1 Jan 2000	In force	Benin, Burkina Faso, Côte d'Ivoire, Mali, Niger, Senegal and Togo
Common Market for Eastern and Southern Africa (COMESA)	Goods	Customs union	8 Dec 1994	In force	Angola, Burundi, Comoros, Democratic Republic of the Congo, Egypt, Eritrea, Eswatini, Ethiopia, Kenya, Lesotho, Malawi, Mauritius, Rwanda, Sudan, the United Republic of Tanzania, Uganda, Zambia and Zimbabwe
East African Community (EAC)	Goods and services	Customs union and economic integration agreement	7 Jul 2000 (goods) / 1 Jul 2010 (services)	In force	Burundi, Kenya, Rwanda, the United Republic of Tanzania, Uganda
Southern African Development Community (SADC)	Goods	Free trade area	1 Sep 2000	In force	Angola, Botswana, Eswatini, Lesotho, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, the United Republic of Tanzania, Zambia and Zimbabwe. Although the Democratic Republic of the Congo is a member of SADC, it is not a party to the Trade Protocol. Angola has not yet submitted its tariff offers to other SADC members.

Source: (WTO Regional Trade Agreements Database, 2021).

ANNEX II

Examples of BioTrade Value Chains in Africa⁷⁷

Southern Africa has been a hub for the commercialization of biological resources, and non-timber forest products (NTFPs) in particular (Wynberg et al., 2015). One well known example is fruit of the baobab tree (*Adansonia digitata* L). Baobab products have a lucrative market opportunity stimulated by the granting of “novel food” status for baobab fruit pulp in the European Union and “generally recognized as safe” (GRAS) status in the United States, the first carried out with UNCTAD with the support of other organizations (UNCTAD, 2017a, p.9; 2010, p.1). The process in the European Union took two years and the cost was estimated between €250,000 to €350,000 (see UNCTAD, 2014c). Baobab seed oil is also popularly used in the cosmetics industry and global demand has increased significantly, with significant exports to Europe, Asia and Northern America. The seed oil's value for cosmetic applications was already well known by local communities at the time of commercialization (Komane et al., 2017, p.2). The global baobab ingredient market was estimated to be approximately \$3.8 billion in 2017, with the market estimated to expand to over \$5 billion by 2024 (Ahuja and Singh, 2018). Although the initial work on commercializing baobab at the international level was carried out in Southern Africa, it is also widely distributed throughout sub-Saharan Africa, offering economic opportunities for numerous African countries. Before this economic opportunity was discovered, the baobab tree was perceived to have low economic value and was increasingly under threat from land conversion.

BioTrade practitioners in Africa

BiInnovation Africa (BIA) project (Promoting European-African business partnerships for biodiversity conservation, 2021)

The German Federal Ministry for Economic Cooperation and Development (BMZ) has been supporting the 4-year project, “BiInnovation Africa - Equitable Benefit-sharing for the Conservation of Biodiversity” since 2019, which seeks to promote European-Africa business partnerships for biodiversity conservation. It works in 4 countries - Cameroon,

Madagascar, Namibia and South Africa. The project is being implemented with 18 European partners working in 20 value chains with more than 10 SMEs and support organisation. Monitoring so far indicates the facilitation of 8,000 new or improved jobs and covering 100,000 hectares in improved biodiversity management.

Objective

The European-African partnerships for biodiversity-based innovations and products have been strengthened with equitable benefit-sharing for conservation and sustainable use of biodiversity. Moreover, the private sector has entered into sustainable and mutually beneficial business partnerships based on high ethical, social and environmental standards.

Approach

The BiInnovation Africa project endeavours to support four African countries in the implementation of their national ABS systems by supporting the conclusion of benefit-sharing agreements between African providers of raw biological materials and ingredients, and users from Europe. These users are predominantly enterprises from the food, cosmetics and pharmaceutical sectors as well as research institutions. Measures involve blended learning trainings, advice on contracts and the development of IT-based online systems for ABS applications, permissions and tracking.

The agreed monetary and non-monetary benefits stipulated by the benefit-sharing agreements contribute to gender-sensitive measures for the sustainable use and protection of ecosystems in the partner countries. In this context, vulnerability assessments, cost-benefit analyses and knowledge sharing between partner countries are conducted.

These new collaboration agreements will be publicly promoted through trade fairs, round tables, meetings and business associations. Based on these agreements, BiInnovation Africa ensures that biodiversity-based raw materials and ingredients from the four African partner countries are used for developing innovations and products under equitable benefit-sharing mechanisms. In order to encourage long-term business relations between providers and users, the project facilitates various formats, such as matchmaking and exchange platforms. Likewise, BiInnovation promotes joint ventures and technology

transfer to increase local value addition and job creation.

Access and Benefit-sharing compliant biotrade in South(ern) Africa (ABioSA) project:

The Swiss State Secretariat for Economic Affairs (SECO) contributes a total of CHF 3 million (about €2.5 million) to the ABS Capacity Development Initiative. These funds are earmarked for supporting specifically ABS compliant Biotrade in South(ern) Africa. Focus is set on South Africa (70 per cent) and other SADC member states (30 per cent). Implementation started in March 2018 and will end in September 2021 (3.5 years).

Objectives

The project aims to create a high-growth jobs-rich and innovative biotrade sector that complies with international and domestic ABS regulations. It supports sustainable development goals and contributes to the livelihoods of rural people and the productive use of South(ern) Africa's plant biodiversity. It aims to create permanent and seasonal jobs in biotrade value chains, while substantially boosting the value generated from biotrade products from the region.

Modes of delivery

The project works with selected biotrade value chains and plant species, including some which straddle national borders. These are being identified based on criteria including traditional knowledge, ecological sustainability, market demand, potential for value-adding and job creation, and the participation of communities and small businesses.

A close partner is the Department of Environment, Forestry and Fisheries (DEFF), which leads the SA government's approach to biotrade. This collaboration takes account of existing policy and legislation, such as the National Environmental Management: Biodiversity Act (NEMBA); and the Bioprospecting Access and Benefit Sharing (BABS) regulations which govern access to South Africa's plant resources and ensure communities benefit from their utilisation.

South Africa's National Biodiversity Economy Strategy provides an excellent platform for development and growth of the biotrade sector.

The project supports the achievement of key government targets including job creation, empowerment of women and rural development - in South Africa and the region.

Despite current limitation of the availability of trade data and measures⁷⁸ being taken to overcome this challenge, the following developments provide for clear indication of the sector momentum, collaboration between industry and government as well as illustrates the increasing scale, importance and status of the biotrade/BioTrade sector:

- Six sector Development Plans are being prepared to drive the growth and sustainability of the Marula, Baobab, Honeybush, *Aloe ferox*, Buchu and an indigenous essential oil cluster. These plans will incorporate criteria included in South African policy Industry Master Plans. In this regard, please note the presentation prepared for the Voluntary Sustainability Standards event of November 2019 (attached).
- Development of Resource Assessment methodologies to support the sectors to know their resource base and to develop "biodiversity management plans". See attached report on marula.
- Biocultural Community Protocols are being developed for three resources – Marula, *Aloe ferox* and Buchu.
- Collaboration between government and multiple other stakeholders in the national process called "Bioproducts Advancement Network South Africa" – BioPANZA. In particular, this network has two clusters which are supported by ABioSA – Market Access and Finance. BioPANZA arises out of a "Biodiversity Economy Lab". See attached for further details and potentially useful data.

Regional and sub-sector specific associations/ support organisations:

The sector in Southern Africa is growing in scale and level of organisation. In the past there was just PhytoTrade Africa. Now the following are support the growth of the sector:

The **Namibian Network of the Cosmetic Industry** brings together 33 businesses producing cosmetic and other health and wellness products based on Namibia's unique indigenous flora. All companies will need to comply with Namibia's forthcoming ABS regulations (<https://nanci.biz/>).

The **Natural Products Association of Botswana** represents the natural and Indigenous producers of Botswana and promote the growth of the sector as an industry in Botswana (<https://facebook.com/NPABBotswana/>).

The **Southern Africa Essential Oil Producers Association (SAEOPA)** has more than 100 members in Southern Africa and has a significant focus on indigenous plant biodiversity. SA based members are required to comply with South Africa's ABS regulations (<https://saeopa.co.za/>).

Bio-Innovation Zimbabwe (BIZ) seeks to transform neglected and underutilised indigenous plants into viable commercial “crops” that generate benefits for rural people and their environment. In doing this BIZ conduct robust research, develop commercial products, and assist rural producers to develop their farming and business skills to grow their enterprises (<https://bio-innovation.org/>).

The **African Baobab Alliance (ABA)** is a grouping of baobab producers, traders and brands supporting the development of the baobab industry. They do this by (i) setting quality standards (ii) supporting harvesters (iii) improving the competitiveness and sustainability of the industry and (iv) growing the demand for baobab in local and international food and cosmetic markets. 500 tonnes per annum of baobab dried fruit pulp (<https://africanbaobaballiance.org/>).

The **South African Honeybush Tea Association (SAHTA)** is the representative body that coordinate activities in the industry. Our aim is to help more farmers to grow and market honeybush successfully, and also to ensure that farming and wild harvesting is done sustainably (<https://sahta.co.za/>).

Aloe Council of South Africa (ACSA) mission includes fostering aloes in their natural habitat, investing in and uplifting rural tapper communities, ensuring sustainable commercial use of the plants, environmental protection, promoting scientific research and knowledge within the aloe industry and to protect the interest of the industry in South Africa by defining professional certification standards for aloe products (<http://aloesa.co.za/about.html>).

BioTrade's experiences with native species from Southern Africa

Southern Africa has emerged as a hub for the commercialization of biological resources as well as products and services derived from biodiversity, in particular non-timber forest products and nature-based tourism. Many of these biological resources are produced under a set of guidelines called BioTrade Principles and Criteria and could benefit from the trade and investment opportunities brought by the

African Continental Free Trade Area (AfCFTA):

Marula oil

A good example of a successful Southern Africa export of a biodiversity-based product is obtained from the marula fruit and nut (*Scelerocarya birrea*). Marula is a rich natural transboundary resource that has multiple applications on many sectors, from direct local sale of local beer made from its fruit to marula oil, widely used across beauty and personal care applications and considered as a ‘miracle oil’ (Transparency Market Research, 2017) in the cosmetic industry.

The global marula oil market is expected to grow from \$ 43.5 million in 2020 to \$ 56.9 million by 2025 at a CAGR of 4.4 per cent. This market research report provides in-depth information on trends, dynamics, revenue opportunities, competitive landscape, and recent developments in the global snack food market. The years considered for the study are 2016–2018, the base year is 2019, the estimated year is 2020, and the forecast period is 2021–2025 (Wisdom Market Research, 2021)

In this regard, several areas where the marula sector has the potential to make improvements have been identified by the ABS Capacity Development Initiative, such as stimulating rural development, job creation and new export markets – with spin-off benefits in technology, innovation, development of small businesses and skills development (ABS Capacity Development Initiative, 2019). There are also concrete examples of BioTrade MSMEs working with marula, such as the Eudafano Women's Co-operative (EWC) (UNCTAD, 2017e) in Namibia benefiting around 2,500 women and their communities, and selling marula products in the national, regional and international markets. EWC is a leading producer of marula oil in the southern African region and is run by a board made up exclusively of women from the community, and its revenues have increased over the years. In 2020, sales from marula kernels fetched the cooperative's members about \$158,000, a 14 per cent jump from 2019. The cooperative empowers its members and their communities economically by ensuring they are paid fair prices (Women in rural Namibia profit from biodiversity-friendly trade, 2021).

However, simultaneously, several challenges for the development of the marula sector were identified that could benefit from regional integration (ABS Capacity Development Initiative, 2019, p.18) . These include harmonized quality controls and standards for

consistent product quality and in line with producer and market needs, improved market access through enabling policies and institutions, research and development for improved product quality and market strategy, and improvement in the conservation and sustainable use of the marula value chain through capacity development, training and increased funding.

Baobab extracts

Similar to marula, baobab-based products also have the potential to become increasingly profitable due to their growing use and popularity in the cosmetics industry in Europe, Asia and North America (Komane et al., 2017). The global baobab market is projected to reach \$ 3.75 billion by 2024 and grow at a significant CAGR of 9.4 per cent during the forecast period, from 2019 to 2024. Baobab is a tree which is characterized by its massive size and swollen trunk. Its production is scattered across Africa and is gaining popularity across the globe, owing to its nutritional and medicinal properties. Baobab is packed with a high amount of protein, carbohydrates, energy, and fiber, as well as essential vitamins and minerals.

Baobab extract such as oil, powder, and pulp are rapidly gaining acceptance in industries such as food & beverages, nutraceuticals, and personal care, among others. Manufacturers in the beverage industry are highly inclining towards introducing baobab in their product range owing to the growing demand for healthy and functional beverages. For instance, in June 2016, Coca Cola, through its brand Aquarius Vive launched a soft drink infused with baobab extract. Also, the demand for baobab extracts is witnessed to be rising in the personal care industry, which will significantly contribute to the growth of the market (Market Research Future, 2021).

However, according to a study on the commercialization of baobab products in Kenya,

to fully capture its economic opportunities there is the need for a strengthened enabling environment, improved information flows among value chain actors, and established quality requirements for improved market access (Jäckering et al., 2019).

Argan oil

The global argan oil market size was valued at \$ 223.9 million in 2019 and is expected to expand at a revenue based CAGR of 10.8 per cent from 2020 to 2027. The growth can be attributed to increasing product demand from several end-use industries such as food, cosmetics, and medical. Growing popularity of the product along with favorable regulatory policies in countries like United Kingdom and United States are likely to play a key role in providing opportunities for new players entering the market. In the United States in 2016 alone, the market value of argan oil (by form: absolute, blend, concentrate) was \$52.2 million and is predicted to double by 2027 (Grand View Research, 2021).

Other products with similarly transborder regional value chains that could equally benefit from regional integration efforts are the mongongo or manketti tree (*Schynziphyton rautanenii*), the African sour plum (*Ximenia americana*), the Mafura (*Trichilia emetica*) fruit, and the clanwilliam cedar (*Widdringtonia cedarbergensis*), all of which have applications in the food and cosmetic industries. The clanwilliam cedar, in particular, is set to highly benefit from a potential improvement in regulatory frameworks brought by the AfCFTA, most notably in terms of sustainable use, since after decades of unsustainable harvesting it finds itself on the brink of extinction (ABS Capacity Development Initiative and UEBT, 2019). This could bring welcome support to existing partnerships for its conservation and awareness raising regarding best practices, access and benefit sharing (ABS) and sustainable use.

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Notes

- 1 Trade under AfCFTA rules can only happen once all the legal arrangements are in place, but the AU Summit decided to allow trade under the reciprocal offers already extended as part of the Phase I negotiations.
- 2 Though details of substantive provisions that will feature in Phase II negotiations have yet to emerge, negotiations are envisaged to be concluded by 31 December 2021 (Tralac, 2021). Phase III negotiations would commence immediately after the conclusion of Phase II.
- 3 See, for example, UNCTAD's webinar on biodiversity and trade statistics (Mekong region, India and Europe), available at <https://unctad.org/meeting/webinar-biodiversity-and-trade-statistics-mekong-region-india-and-europe>. Further information on the UNCTAD Trade and biodiversity statistical tool will be available in <https://biotrade.org> in the second semester of 2021.
- 4 According to the TRIPS Agreement, any benefit, advantage or privilege provided by a member to its own nationals or to the nationals of another member shall be extended to nationals of all WTO members. The national treatment (article 3) and most-favoured-nation treatment (article 4) clauses of the TRIPS Agreement do not allow for exemptions for regional agreements, as it is the case for trade in goods and services.
- 5 Africa's living organisms comprise around a quarter of global biodiversity, including the most intact assemblages of large mammals on Earth (UNEP-WCMC, 2016). In particular, Africa is home to two of the world's five High Biodiversity Wilderness Areas (HBWA): the Congo forests of Central Africa and the Miombo-Mopane woodlands of Southern Africa. Furthermore, three of the 17 countries classified as megadiverse are in Africa: the Democratic Republic of the Congo, Madagascar and South Africa (Biodiversity A-Z, 2014).
- 6 For example, over 70 per cent of the population in sub-Saharan Africa depend on forests and woodlands for their livelihoods (Our work in Africa, 2017).
- 7 BioTrade P&C have been implemented in the following sectors: personal care, pharmaceutical/phytopharma, food, fashion, ornamental flora and fauna, handicrafts, textiles and natural fibres, sustainable tourism and forestry-based carbon credits.
- 8 For examples, see UNCTAD BioTrade Initiative technical fact sheets on NTMs: (UNCTAD, 2019c); (UNCTAD, 2019d); (UNCTAD, 2019e); (UNCTAD, 2019f).
- 9 Sub-section prepared by Lorena Jaramillo (UNCTAD/DITC).
- 10 Information received from PhytoTrade Africa and ABS Capacity Development Initiative in 2019. Additional information compiled from the UEBT: <https://www.ethicalbiotrade.org/trading-members>.
- 11 Interventions made by Andrew Kingman (Eco-Micaia Ltd.), Martha Negumbo (Eudafano Women's Co-operative) and Monica Rydsmo Robson (Kalahari Natural Oils), at the 5th BioTrade Congress, on 12–13 September 2019, and communication with Martha Negumbo in May 2021. Inputs were also provided by Cyril Lombard and Suhel al-Janabi (ABS Capacity Development Initiative). BIA and ABioSA projects are currently being implemented by ABS Capacity Development Initiative through the financial support of *Gesellschaft für Internationale Zusammenarbeit* (GIZ) and State Secretariat for Economic Affairs SECO (respectively).
- 12 In general, the ABS Capacity Development Initiative works with the term BioTrade in order to emphasize the sustainability aspect of ABS-related value chains. However, for the ABioSA project in South(ern) Africa; "biotrade" (not "BioTrade") is being used as it is the term commonly used in South Africa; see (ABS Compliant Value Chains & Biotrade, 2021).
- 13 Prepared by Julian Benda with inputs from Lorena Jaramillo, Economic Affairs Officer and additional inputs from David Vivas Eugui, Legal Officer (UNCTAD/DITC).
- 14 See Protocol on Rules and Procedures on the Settlement of Disputes in the Agreement Establishing the African Continental Free Trade Area (African Union, 2018).
- 15 Eight RECs have been recognized as building blocks for the AfCFTA, namely the Economic Community of West African States (ECOWAS), the Economic Community of Central African States (ECCAS), the East African Community (EAC), the Common Market for Eastern and Southern Africa (COMESA), the Community of Sahel-Saharan States (CEN-SAD), the Arab Maghreb Union (AMU), the Southern African Development Community (SADC), and the Intergovernmental Authority on Development (IGAD). Some countries are members of several different RECs, and the RECs themselves have different characteristics (see annex I for more detail).
- 16 A range of barriers still raise transaction costs and limit the movement of goods and services across Africa. Intra-African trade remains low overall (18 per cent of the continent's commercial exchanges in 2015) and

- when looking exclusively at trade in agricultural commodities, intra-regional trade is less than 5 per cent of all products combined. African trade is largely outbound due to high internal barriers, and the tariff preferences offered by many industrialized countries through Generalized System of Preferences (GSP) schemes.
- 17 44 of 55 African Union Member States signed the consolidated text of the AfCFTA Agreement at the Extraordinary Summit, while 47 signed the Kigali Declaration.
 - 18 See (Tralac, 2021) for the full list. As of May 2021, Eritrea is the only African country that has not signed the AfCFTA Agreement.
 - 19 The analysis in this section is based on Agenda 2063 (African Union, 2013).
 - 20 Para. 42 of the 2030 Agenda for Sustainable Development (A/RES/70/1), United Nations Member States also “reaffirm the importance of supporting the African Union’s Agenda 2063 and the programme of the New Partnership for Africa’s Development (NEPAD), all of which are integral to the new Agenda.” See also (van der Nest, 2017).
 - 21 *United States - Import Prohibition of Certain Shrimp and Shrimp Products*, WT/DS58/AB/R, 6 November 1998 (Report of the Appellate Body), para. 155 (*‘United States - Shrimp’*).
 - 22 Art. 4(3) of the Nagoya Protocol, “*This Protocol shall be implemented in a mutually supportive manner with other international instruments relevant to this Protocol. Due regard should be paid to useful and relevant ongoing work or practices under such international instruments and relevant international organizations, provided that they are supportive of and do not run counter to the objectives of the Convention and this Protocol.*”
 - 23 See also *Arbitration Regarding the Iron Rhine (“Ijzeren Rijn”) Railway (Belgium v. The Netherlands)*, Permanent Court of Arbitration, Award of 24 May 2005, 27 RIAA 35, para. 59.
 - 24 It should be noted that although the GATT and GATS exceptions are now considered ‘environmental’, they do not mention the environment and were not originally designed with the environment in mind. A number of exception clauses in RTAs, on the other hand, do make it explicit that they are ‘environmental’ exceptions.
 - 25 For example, *United States - Shrimp*; *Thailand – Restrictions on Importation of and Internal Taxes on Cigarettes* (DS10/R-37S/200); *China - Measures Related to the Exportation of Rare Earths, Tungsten, and Molybdenum* (WT/DS431,432,433/AB/R); *Brazil - Measures Affecting Imports of Retreaded Tyres* (WT/DS332/AB/R); *Indonesia - Importation of Horticultural Products, Animals and Animal Products* (WT/DS477,478/R).
 - 26 *United-States - Shrimp*, para. 168; *European Communities – Measures Affecting the Approval and Marketing of Biotech Products* (WT/DS291/R; WT/DS292/R; WT/DS293/R); (Stuart, 2014, p.402).
 - 27 One such agreement is the *Lusaka Agreement on Co-operative Enforcement Operations Directed at Illegal Trade in Wild Fauna and Flora*, 8 September 1994 (in force 10 December 1996), 1950 UNTS 35.
 - 28 *Ibid.*, art. 8(3). Per art. 6, the scope of the AfCFTA Agreement covers trade in goods, trade in services, investment, IPR and competition policy.
 - 29 This was carried out through the ministerial-level Decision on Trade and Environment and Decision on Trade in Services and the Environment, both of which were adopted alongside the Agreement Establishing the WTO.
 - 30 An online negotiations portal, the first tariff negotiation tool of its kind, has been launched by the ITC in 2019 and negotiators are being trained to use this secure platform to conduct negotiations. This portal has been developed with the African Union with the contribution of the European Union. See (ITC, 2020) for more details.
 - 31 A classification coordinated by UNCTAD with the contribution of FAO, International Trade Centre (ITC), Organization for Economic Cooperation and Development (OECD), UNCTAD, United Nations Industrial Development Organization (UNIDO), World Bank and WTO.
 - 32 See UNCTAD BioTrade Initiative Technical Fact Sheets on NTMs applicable to biodiversity and BioTrade Products: (UNCTAD, 2019c); (UNCTAD, 2019d); (UNCTAD, 2019e); (UNCTAD, 2019f).
 - 33 Except as may be provided for in this Protocol, the identification, categorisation, monitoring and elimination of NTBs by State parties shall be in accordance with the provisions of annex 5 on NTBs.
 - 34 Art. 12. This is subject to the general exceptions elaborated in art. 26 of the Protocol on Trade in Goods, or the security exceptions in art. 27, for example.
 - 35 These are: Government participation in trade and restrictive practices tolerated by governments, customs and administrative entry procedures, TBT, SPS measures, specific limitations, charges on imports, and

“other” – which consists of transport, clearing and forwarding.

- 36 See (WTO, 2013). The claim was supported by Argentina, Brazil and Zambia.
- 37 The analysis regarding SPS measures on this page are based on arts. 6-11 and 14 of the AfCFTA Agreement (African Union, 2018 at annex 7).
- 38 Jensen (2002, p.36): “[w]ould it be reasonable to allow, for instance Tanzania to deny access of imported fruit from Kenya referring to international standards if these international standards in practice apply neither in Kenya nor in Tanzania but only in developed countries far away?”
- 39 UNEP and IISD (2014, p.135) identify this as an informal WTO definition, which was then adopted as the definition in Annex 4 to the AfCFTA Agreement.
- 40 The analysis on trade facilitation in this section is based mainly on the WTO Agreement on Trade Facilitation (WTO, 2014 at arts.1-16, 21 and note 10) unless otherwise stated.
- 41 For example, obligations on publication of information; enquiry points; advance rulings; pre-arrival processing; electronic payment; separation of release from final determination of customs duties, taxes, fees and charges; risk management; post-clearance audit; establishment and publication of average release times; trade facilitation measures for authorized operators; expedited shipments; perishable goods; use of international standards; single window; freedom of transit; uniform documentation requirements; fees, charges and penalties; procedures for appeal and review; use of customs brokers; pre-shipment inspection; border agency cooperation; and a national committee on trade facilitation.
- 42 Ibid., art. 3. Art. 1(c) of the Trade facilitation Annex defines ‘Customs Law’ as “the statutory and regulatory provisions related to importation, exportation and movement or storage of goods, the administration and enforcement of which are specifically charged to the Customs Authorities and any regulations made by the Customs Authorities under their statutory powers.”
- 43 44 out of 55 countries in Africa are members of the WTO; nine countries are observers and currently negotiating accession, see (African Members [and Observers] of the WTO, WTO, 2021).
- 44 UNEP and IISD (2014, p.47): Art. 1(2) of the GATS states that “[f]or the purposes of this Agreement, trade in services is defined as the supply of a service: (a) from the territory of one Member into the territory of any other Member; (b) in the territory of one Member to the service consumer of any other Member; (c) by a service supplier of one Member, through commercial presence in the territory of any other Member; (d) by a service supplier of one Member, through presence of natural persons of a Member in the territory of any other Member.” This does not apply to services supplied in the exercise of governmental authority.
- 45 Ibid.: these are the service sectors defined in the W/120 classification used under the GATS.
- 46 See (BioTrade Congress II: Integrating REDD+ projects into BioTrade strategies, 2013), (UNCTAD, 2014a) and (UNCTAD, 2015b).
- 47 Reducing emissions from deforestation and forest degradation in developing countries, and fostering conservation, sustainable management of forests, and enhancement of forest carbon stocks, in the context of the UNFCCC. For more information, see: <https://redd.unfccc.int/>.
- 48 Misappropriation – also known as ‘biopiracy’ – occurs when an individual or firm takes genetic resources from a country or uses associated traditional knowledge and develops a technology therefrom without having obtained permission and/or without sharing benefits derived from the commercialization of the product. For more information, see: (Mgbeoji, 2006).
- 49 See (African Union, 2013); (African Union, 2014 at para.4); (African Union, 2016a). PAIPO will be a specialized agency of the African Union and its objectives can be aligned with the goal of regional integration, whereas OAPI and ARIPO are not attached to the African Union and focus their efforts on collaboration with WIPO. See (African Union, 2016a).
- 50 See also (Oldham et al., 2013) a report presenting rich data sets for e.g., the scientific landscape for access and benefit-sharing in Africa, and detailed patent activity in various African countries (particularly, South Africa).
- 51 See (WIPO, 2020). WIPO also maintains a list of patent disclosure requirements at (WIPO, 2020).
- 52 For two specific examples see Oguamanam and T. W. Dagne (2014) in (de Beer et al., 2014).
- 53 The analysis of geographical indications in this section is mainly based on the text of African Union, *Continental Strategy for Geographical Indications in Africa 2018–2023* (African Union, 2019).
- 54 See the full list of ARIPO Member States, online: <https://www.aripo.org/member-states> and OAPI Member States, online: <http://oapi.int/index.php/fr/oapi/presentation/etats-membres>
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- 55 (UPOV, 1961 as amended 10 November 1972, 23 October 1978, and 19 March 1991, in force 24 April 1998).
- 56 According to the UPOV Secretariat, ARIPO has initiated the procedure for acceding to the UPOV Convention, see UPOV (2021). However, ARIPO member States' rejection of the draft clause granting ARIPO the right to issue PVP directly means that it cannot join - see (Isiko Štrba, 2019: 49).
- 57 See, e.g., Elver (2016), Kabau and Cheruiyot (2019), Haugen (2015).
- 58 Among others Cabrera Medaglia et al. (2019), Cruz Saldivar (2014), Correa et al. (2015), Boy (2008), Oguamanam (2006), Christinck and Walloe Tvedt (2015), Kochupillai (2016), Robinson (2008), Oguamanam (2015), Micara (2017).
- 59 (OHCHR, 2018 at art. 19); The UNDROP was a contentious resolution at the United Nations General Assembly, with 121 United Nations Member States voting for the resolution, 8 voting against, 54 abstaining, and 10 not voting. African United Nations Member States voted 48 for, none against, 3 abstained, and 3 did not vote.
- 60 The analysis of traditional knowledge and traditional cultural expressions in this section is mainly based on the text of Swakopmund Protocol on the Protection of Traditional Knowledge and Expressions of Folklore Within the Framework of the African Regional Intellectual Property Organization (ARIPO), adopted by the Diplomatic Conference of ARIPO at Swakopmund (Namibia) on 9 August 2010, and amended on 6 December 2016, online: <https://www.aripo.org/swakopmund-protocol/>.
- 61 Also called folklore in some contexts.
- 62 The list of contracting States was last updated on 1 January 2019, see (ARIPO, 2010).
- 63 At art. 2(2), the Swakopmund Protocol defines 'traditional knowledge' as "any knowledge originating from a local or traditional community that is the result of intellectual activity and insight in a traditional context, including know-how, skills, innovations, practices and learning, where the knowledge is embodied in the traditional lifestyle of a community, or contained in the codified knowledge systems passed on from one generation to another. The term shall not be limited to a specific technical field, and may include agricultural, environmental or medical knowledge, and knowledge associated with genetic resources".
- 64 At art. 2(2), the Swakopmund Protocol defines 'expressions of folklore' as "any forms, whether tangible or intangible, in which traditional culture and knowledge are expressed, appear or are manifested, and comprise the following forms of expressions or combinations thereof: i. verbal expressions, such as but not limited to stories, epics, legends, poetry, riddles and other narratives; words, signs, names, and symbols; ii. musical expressions, such as but not limited to songs and instrumental music; iii. expressions by movement, such as but not limited to dances, plays, rituals and other performances; whether or not reduced to a material form; and iv. tangible expressions, such as productions of art, in particular, drawings, designs, paintings (including body painting), carvings, sculptures, pottery, terracotta, mosaic, woodwork, metal ware, jewelry, basketry, needlework, textiles, glassware, carpets, costumes; handicrafts; musical instruments; and architectural forms".
- 65 Article 8(j) calls for CBD Parties to, as far as possible and as appropriate, and subject to their national legislation, "respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices."
- 66 *Convention for the Safeguarding of the Intangible Cultural Heritage*, 17 October 2003 (in force 20 April 2006) 2368 UNTS 3. Nearly all African States are Parties to this Convention.
- 67 For an extensive list of such cases, see International Law Association 'Role of International Law in Sustainable Natural Resource Management for Development' 78 International Law Association Reports of Conferences 634, 701-702, 704-707.
- 68 The UNCTAD World Investment Report 2015 focused on the reform of international investment governance, noting at 120 that "growing unease with the current functioning of the global international investment agreement (IIA) regime, together with today's sustainable development imperative, the greater role of governments in the economy and the evolution of the investment landscape, have triggered a move towards reforming international investment rule-making to make it better suited for today's policy challenges. As a result, the IIA regime is going through a period of reflection, review and revision."
- 69 See also Bonnitcha (2017).
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- 70 The independent experts preparing the PAIC recommended that it be a legally binding instrument, but Member States did not accept this recommendation. Instead, at the final meeting of Member State experts, it was recommended that the Ministers use the PAIC as a reference framework document in the negotiation of the AfCFTA investment chapter. See 'Report of the Meeting of Member States Experts on the consideration of the Pan African Investment Code (PAIC) and the African Inclusive Market Excellence Center (AIMEC)', para 32(iii), online: https://au.int/sites/default/files/documents/32844-doc-report_aimecpaic.pdf.
- 71 The analysis on the PAIC in this section is mainly based on arts. 2, 3, 8, 10, 14 and 17.
- 72 Under the TRIMS, "the [performance requirements] prohibited by the WTO are those linked to local content requirements, trade-balancing requirements, foreign exchange restrictions related to the foreign exchange inflows of an enterprise, and export controls. Moreover, the TRIMs Agreement covers trade in goods only, excluding services. Because of this, [performance requirements] are not forbidden in the services sector" (Nikiéma, 2014, p.6). LDCs are also eligible for temporary exemptions (ibid.).
- 73 See (UNECA et al., 2019), chapter 5 on the Competition Protocol; UNECA, African Union and UNCTAD, *Assessing Regional Integration in Africa (ARIA VIII), Bringing the Continental Free Trade Area About* (UNECA, AU, African Development Bank, 2017), chapter 10 on Phase II Negotiations; (Luke and MacLeod, 2019) chapter 10 on Approaching competition policy in the AfCFTA.
- 74 African Nature Convention, art. III: "*In taking action to achieve the objectives of this Convention and implement its provisions, the Parties shall be guided by the following: 1. the right of all peoples to a satisfactory environment favourable to their development; 2. The duty of States, individually and collectively to ensure the enjoyment of the right to development; 3. the duty of States to ensure that developmental and environmental needs are met in a sustainable, fair and equitable manner.*"
- 75 Ibid., art. 5(6)(a)(vi). annex II (p. 29) defines Managed Resource Protected Areas as an "area containing predominantly unmodified natural systems, managed to ensure long-term protection and maintenance of biological diversity, while providing at the same time a sustainable flow of natural products and services to meet community needs." The objectives of such management are "to protect and maintain the biological diversity and other natural values of the area in the long term; to promote sound management practices for sustainable production purposes; to protect the natural resource base from being alienated for other land-use purposes that would be detrimental to the area's biological diversity; and to contribute to regional and national development."
- 76 The outstanding RoO (mostly likely for goods deemed sensitive) include fish (Harmonised System (HS) Chapter 3), articles of leather (HS Chapter 42), knitted/crocheted fabrics (HS Chapter 62), knitted/crocheted apparel and clothing accessories (Chapter 61), and not knitted/crocheted apparel and clothing accessories (HS Chapter 62); and some motor vehicle, agricultural and clothing products (Tralac, 2021).
- 77 Prepared by Julian Benda with inputs from Lorena Jaramillo (DITC/ UNCTAD). This section has also benefitted greatly from the contribution of GIZ/ *ABS Capacity Development Initiative: The ABS compliant Biotrade in Southern Africa* Project (supported by Germany, The European Commission, Norway and Switzerland) and the *BioInnovation Africa Project* (supported by Germany).
- 78 UNCTAD is currently developing BioTrade-relevant codes of the Harmonized Commodity Description and Coding System (HS) which aims to contribute to filling information and data gaps in the trade of BioTrade and biodiversity-based products.
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