

ABS in the southern African Baobab Sector

African Baobab Alliance



ABioSA GUIDE

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Analysis of access and benefit sharing in Zimbabwe, Tanzania, South Africa and Mozambique



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& the environment**

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A glossary of biotrade terms can be found at www.abs-biotrade.info/resources.

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Introduction

This document is a summary of a detailed analysis by the African Baobab Alliance (ABA) of Access and Benefit Sharing (ABS) compliance in the Baobab sector in Mozambique, South Africa, Tanzania and Zimbabwe.

It provides an assessment of the current ABS regulatory landscapes, identifies challenges and opportunities, and provides recommendations for ABA and its members.

The study was conducted through desk research and surveys of international buyers of Baobab products and ABA members involved in Baobab exportation.

The full report is available at <https://africanbaobaballiance.org>.



Key findings

- Most existing ABS legislation in the four countries was established prior to the Nagoya Protocol. These frameworks provide a foundation for ABS, but are not fully aligned with requirements of the protocol.
- South Africa leads in implementation but still has gaps, particularly in conservation benefits.
- All four countries face challenges in fully implementing their ABS obligations.
- South Africa is the only country that has actualised benefit sharing agreements and issued permits. However, none of the countries have established clear parameters for benefit sharing, leaving the direction of benefit sharing vague.
- There is a significant knowledge gap among ABA members regarding ABS and its implications. Awareness-raising efforts are crucial to bridge this gap.
- International buyers show limited awareness of national ABS regulations, which hampers compliance and effective implementation.
- While national policies are in place, there is a noticeable lag in incorporating conservation benefits as a part of ABS frameworks. This issue is prevalent across all four countries.



International buyers show limited awareness of national ABS regulations, which hampers compliance and effective implementation.



ABS country overview

- **Mozambique:** Has established national authorities and regulations aligning with the Nagoya Protocol, but faces challenges in enforcement and resource allocation.
- **South Africa:** Known for robust ABS regulations and active enforcement, South Africa serves as a model for other African countries but requires improvements, particularly in the recognition of conservation as a benefit.
- **Tanzania:** Has foundational ABS regulations, but implementation and compliance monitoring require significant improvement.
- **Zimbabwe:** Recently updated its ABS legislation but needs to enhance awareness and enforcement mechanisms.

Challenges in ABS implementation and compliance

- Managing and collecting data effectively is challenging due to the complexity and volume of information required. Accurate data is essential for monitoring compliance and ensuring fair benefit sharing.
- Many SADC countries lack the necessary infrastructure and trained personnel to implement and enforce ABS regulations effectively.
- The high costs associated with administering ABS systems can be a barrier for both providers and users of genetic resources. These costs include expenses related to obtaining permits, legal consultations, and compliance monitoring.
- Unclear or incomplete regulations can lead to uncertainty and hinder the effective implementation of the Nagoya Protocol. Stakeholders often face challenges in understanding and navigating ABS requirements.
- Lack of coordination between ministries, government agencies, the private sector, and communities in development planning.
- Inadequate capacity for planning and enforcement of policy and legislation (human, financial, and institutional) at community implementation levels.
- Low levels of stakeholder involvement and participation in planning and decision-making.
- Insufficient allocation of resources for biodiversity research, management, and capacity building.
- Overlapping mandates of different legislation and authorities, leading to confusion and inefficiencies.



Many SADC countries lack the necessary infrastructure and trained personnel to implement and enforce ABS regulations effectively.

Recommendations

The report makes several recommendations:

- There is a need to strengthen legal and regulatory frameworks to align national ABS regulations more closely with the Nagoya Protocol.
- Enhancing institutional capacity is essential to manage and enforce ABS regulations.
- Promoting effective benefit sharing mechanisms by developing clear and standardised agreements will ensure fair distribution of benefits.
- Raising awareness through targeted campaigns will educate ABA members and international buyers about ABS regulations and their implications.
- Supporting conservation by integrating conservation benefits into ABS frameworks is crucial for the sustainable use of genetic resources.

Support required

- Buyers and producers require training on ABS regulations and compliance procedures.
- Many producers need financial support to cover the costs associated with ABS compliance. This could include grants, subsidies, and low-interest loans.
- Access to legal and technical experts who can help navigate the complexities of ABS regulations.
- Developing more straightforward compliance processes and reducing bureaucratic hurdles.
- Establishing platforms for buyers and producers to collaborate, share best practices, and address common challenges.



Overview of Baobab

The Baobab (*Adansonia digitata*) is one of the most important indigenous fruit trees in Africa. There has been growing international interest in Baobab, with the high nutritional value of its fruit making it a sought-after ingredient in health foods and dietary supplements.

The commercial potential of Baobab products has led to increased efforts to sustainably harvest these resources. South Africa, Mozambique, Tanzania, and Zimbabwe are at the forefront of these initiatives, seeking to balance economic development with environmental conservation.

Access and Benefit Sharing (ABS) and the Nagoya Protocol

The utilisation of Baobab resources is subject to international regulations aimed at ensuring fair and equitable benefit sharing. The Nagoya Protocol on Access and Benefit Sharing (ABS) provides a framework for the use of genetic resources and traditional knowledge.

The main objectives of the Nagoya Protocol are:

- **Fair and equitable benefit sharing** to ensure benefits arising from the utilisation of genetic resources are shared fairly and equitably with countries providing these resources.
- **Conservation of biodiversity** by recognising the value of genetic resources.
- **Sustainable use of biodiversity** to maintain ecosystem health and resilience.

A significant characteristic of the protocol is its inclusion of traditional knowledge associated with genetic resources.

While the commercial potential of Baobab offers opportunities for economic growth and community development, it also presents several challenges. Ensuring sustainable harvesting, maintaining biodiversity, and navigating the complex ABS regulatory landscape are critical issues that need to be addressed.

There is a need for capacity building and awareness-raising among local communities to empower them to engage effectively in ABS processes. Strengthening institutional frameworks and fostering international cooperation are also essential for the successful implementation of ABS agreements.

By adhering to ABS regulations, ABA members can improve their competitiveness in international markets and contribute to the conservation of biodiversity.



There is a need for capacity building and awareness-raising among local communities to empower them to engage effectively in ABS processes.

Challenges in Baobab commercialisation

Baobab fruit pulp was authorised for the European market as a novel food ingredient in 2008. This approval, along with the Generally Recognized as Safe (GRAS) status granted by the US Food and Drug Administration (FDA) in 2009, opened the doors to significant market opportunities.

Since then, more than 300 products containing Baobab have been identified on the European market. The formation of the African Baobab Alliance (ABA) in 2018 aimed to enhance quality standards, increase global demand, and promote sustainable, ethical supply chains for Baobab.

Despite this progress, the commercialisation of Baobab faces several challenges that need to be addressed to ensure sustainable and equitable growth.

REGULATORY HURDLES

Navigating the regulatory landscape, particularly ABS regulations, presents significant challenges for Baobab producers and exporters. ABS processes can be complex and time-consuming, requiring extensive documentation and coordination with multiple stakeholders.

Each country has its own ABS laws, which can differ significantly, creating a complex regulatory environment. In-country implementation is often a complex process, taking years to adopt and operationalise the rules on ABS.

MARKET ACCESS

While recognition of Baobab as a novel food has opened up new markets, access remains limited by competition from other superfoods and the need to build consumer awareness and demand.

SUSTAINABILITY CONCERNS

All exported Baobab products currently come from wild resources, raising concerns about sustainable harvesting. Overexploitation of Baobab can lead to ecological imbalance and the degradation of ecosystems. It is crucial to implement and enforce sustainable harvesting to ensure the long-term viability of Baobab populations. The African Baobab Alliance (ABA) plays a pivotal role in promoting sustainable practices among members, but continuous monitoring and support are essential.

EQUITABLE BENEFIT SHARING

Ensuring benefits from the commercialisation of Baobab are equitably shared with local communities is a fundamental challenge. The principles of ABS require that local communities, who are the custodians of Baobab resources, receive fair compensation for their contributions. This includes both monetary benefits and non-monetary benefits such as capacity building, infrastructure development and technology transfer. Implementing effective benefit sharing is critical to maintaining community support and fostering sustainable development.

MONITORING AND COMPLIANCE

Effective monitoring and compliance are necessary to enforce ABS regulations and ensure all stakeholders adhere to sustainable and ethical practices. This includes regular audits, reporting and checkpoints to track utilisation of genetic resources. The complexity of these processes can be a barrier for smaller producers and exporters.



The formation of the African Baobab Alliance (ABA) in 2018 aimed to enhance quality standards, increase global demand, and promote sustainable, ethical supply chains for Baobab.



Mechanisms of the Nagoya Protocol

The Nagoya Protocol establishes mechanisms to ensure the fair and equitable sharing of benefits arising from the utilisation of genetic resources. They aim to provide legal certainty, transparency and compliance.

Implementing the Nagoya Protocol at the national level is a complex process that can take years to adopt and operationalise. Many countries are still developing their ABS rules and mechanisms.

PRIOR INFORMED CONSENT (PIC)

The Nagoya Protocol requires measures to ensure access to genetic resources is subject to prior informed consent of the providing country. PIC ensures countries maintain sovereignty over their genetic resources and can control access based on national legislation.

MUTUALLY AGREED TERMS (MAT)

The protocol stipulates that access to genetic resources must be based on mutually agreed terms between the provider and the user. Key aspects of MAT include:

- **Benefit sharing agreements** covering monetary and non-monetary benefits arising from use of genetic resources.
- **Conditions of use** detailing how genetic resources can be used, including research, development and commercialisation.
- **Dispute resolution** to resolve disputes that may arise from the utilisation of genetic resources.

These guidelines must be adhered to by individuals, companies, and other organisations seeking to access and utilise genetic resources within their jurisdiction.

National Focal Points and Competent National Authorities

Each party to the Nagoya Protocol is required to have a National Focal Point (NFP) to liaise with the CBD Secretariat, and competent national authorities (CNAs) responsible for granting access and overseeing compliance with ABS regulations.

International Certificates of Compliance

Countries issue International Certificates of Compliance through the ABS Clearing-House to provide legal evidence of proper access to genetic resources.

Monitoring and reporting

Parties are mandated to monitor the utilisation of genetic resources to ensure compliance with the protocol and report their activities to the CBD Secretariat. This includes providing updates on access agreements, benefit sharing arrangements and compliance measures.

National implementation and flexibility

National laws and regulations enforcing the Nagoya Protocol must meet certain minimum standards, ensuring that indigenous peoples and local communities provide prior informed consent (PIC) for access to genetic resources or traditional knowledge over which they have recognised rights.

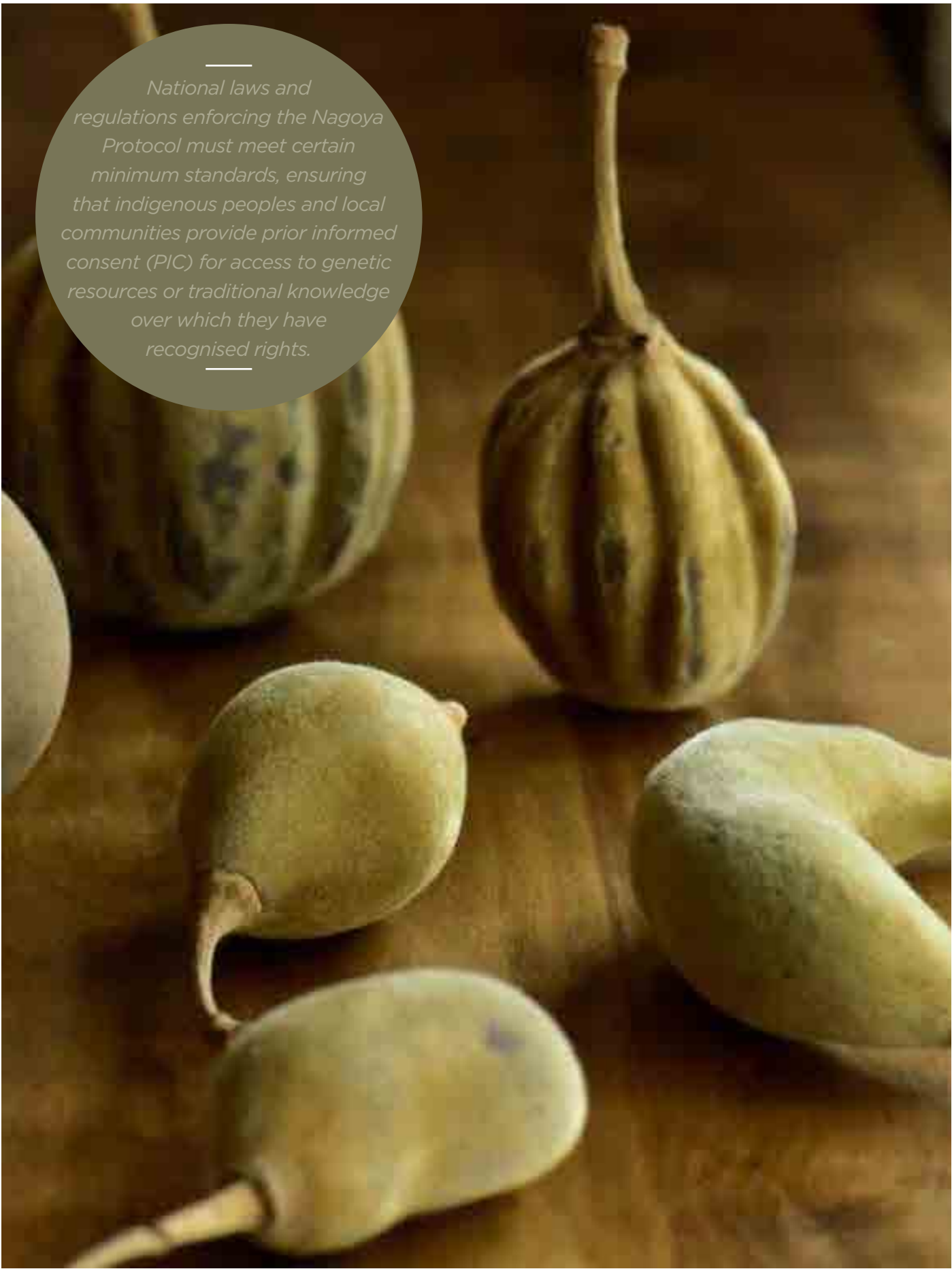


Implementing the Nagoya Protocol at the national level is a complex process that can take years to adopt and operationalise. Many countries are still developing their ABS rules and mechanisms.

Benefit sharing

Benefits can be monetary or non-monetary

- **Research exchanges:** collaborative research projects between user companies and local research institutions.
- **Provision of equipment and infrastructure:** supplying tools and facilities to local communities and institutions.
- **Payment of royalties:** monetary compensation for commercial use of genetic resources.
- **Preferential access to medicines:** local communities get priority access to medical treatments developed from their resources.
- **Joint ownership of intellectual property rights:** shared patents and other IP rights resulting from the use of genetic resources.
- **Capacity building and technology transfer:** training and development to enhance local capabilities.
- **Community development projects:** investment in local infrastructure such as schools and healthcare facilities, funded by revenues from Baobab product sales.
- **Conservation of biodiversity:** local communities partner with sourcing companies to protect and promote biodiversity.



National laws and regulations enforcing the Nagoya Protocol must meet certain minimum standards, ensuring that indigenous peoples and local communities provide prior informed consent (PIC) for access to genetic resources or traditional knowledge over which they have recognised rights.



Many African countries have made significant progress in establishing national frameworks for ABS compliance.

Overview of the SADC ABS regulatory landscape

Africa, with its rich biodiversity and genetic resources, has been a significant focus of ABS initiatives. By 2024, 24 African countries had established national authorities and regulations in alignment with the Nagoya Protocol. These regulations are designed to ensure compliance with ABS principles, fostering sustainable development and equitable benefit sharing among stakeholders including local communities, researchers, and commercial entities.

Many African countries have made significant progress in establishing national frameworks for ABS compliance. This report focuses on the ABS regulatory landscapes of Mozambique, South Africa, Tanzania and Zimbabwe.

Overview of Nagoya Protocol compliance

Country	Party to NP Since:	NFP	CNA	MSR	PRO	NMCC	IRCC	NDB	CP	CPC	NR
Mozambique	12 Oct 2014	1	0	0	0	0	0	0	0	0	1
South Africa	12 Oct 2014	1	1	3	2	1	58	1	1	0	1
Tanzania	19 Apr 2018	1	0	0	0	0	0	0	0	0	0
Zimbabwe	30 Nov 2017	1	3	1	1	0	0	0	0	0	0

- **NFP:** ABS National Focal Point
- **CNA:** Competent National Authority
- **MSR:** Legislative, Administrative or Policy Measure
- **PRO:** ABS Procedure
- **NMCC:** National Model Contractual Clause
- **IRCC:** Internationally Recognized Certificates of Compliance
- **NDB:** National Websites or Databases
- **CP:** Checkpoint
- **CPC:** Checkpoint Communiqué
- **NR:** Interim National Reports on the Implementation of the Nagoya Protocol



Fragmentation of regulation and responsibilities may lead to inefficiencies and increased compliance costs for producers.

THE IMPACT OF ABS REGULATIONS ON BAOBAB PRODUCERS IN THE SADC REGION

ABS has many positive impacts on the Baobab sector:

- ABS promotes sustainable practices and ensures fair distribution of benefits to local communities involved in Baobab production.
- The broad scope of ABS ensures comprehensive regulation. Clear definitions provide legal certainty and aid compliance and understanding of ABS requirements. They ensure producers obtain necessary permissions, fostering trust and collaboration with local communities.
- ABS protects community interests and encourages their active participation, supporting equitable and inclusive practices.
- ABS encourages diverse forms of benefit sharing, broadening the scope of benefits for Baobab producers and communities.
- ABS protects and values traditional knowledge.

Some challenges associated with ABS include:

- Producers must navigate national regulations and community rights, which impacts on access to resources.
- National and subnational regulations may add complexity to compliance for producers.
- The absence of checkpoints complicates tracking and enforcing compliance, potentially impacting the efficiency of benefit sharing mechanisms.
- Lack of clear reporting guidelines may hinder transparency and accountability in the utilisation of Baobab resources.
- Fragmentation of regulation and responsibilities may lead to inefficiencies and increased compliance costs for producers.

Mozambique



GIZ/ABioSA/Jonathon Rees

Mozambique has been party to the Nagoya Protocol since Oct 2014. Regulation 19/2007, published in the National Gazette, is the primary legislative instrument governing ABS in Mozambique. The country has taken steps towards implementing ABS but faces challenges in fully aligning its regulations with the protocol.

The main body responsible for ABS in Mozambique is the Ministry of Land, Environment and Rural Development. The ABS Focal Point is responsible for coordinating ABS and ensuring compliance with national and international regulations. There is a need to strengthen its technical, administrative, legislative and financial capacities.

A Competent National Authority (CNA) has been designated within the environmental sector to oversee ABS compliance. It requires activation and establishment of technical-scientific commissions to support its functions.

An inter-ministry working group advises the CNA on ABS issues and coordinates different government departments. There is a need to formalise the roles of its participants and update its composition to improve efficiency.

Mozambique mandates that access to genetic resources must be based on Prior Informed Consent (PIC) and Mutually Agreed Terms (MAT) to ensure fair and equitable benefit sharing with local communities.

Challenges

ABS implementation in Mozambique is hindered by a lack of resources, institutional capacity and clear guidelines for enforcement. There are significant challenges related to the coordination between the ABS Focal Point and other government departments that issue licences with ABS implications. The regulations are in Portuguese, which can be a hurdle for non-Portuguese speaking stakeholders.

The enforcement of PIC and MAT provisions is inconsistent, and communities often do not receive their fair share of benefits due to bureaucratic inefficiencies and corruption.

There are no contracts, models, manuals, or guidelines developed for ABS regulations, which complicates the implementation of benefit sharing mechanisms.

To ensure compliance with ABS regulations, Mozambique needs to establish clear compliance pathways that include monitoring, reporting and enforcement mechanisms.

The country lacks specific checkpoints for ABS compliance, which are necessary to monitor the use of genetic resources and ensure that all activities are conducted legally.



ABS implementation in Mozambique is hindered by a lack of resources, institutional capacity and clear guidelines for enforcement. There are significant challenges related to the coordination between the ABS Focal Point and other government departments that issue licences with ABS implications.

Section	Mozambique
Nagoya Protocol	Party since 12 October 2014
Competent authority	The Ministry of Land, Environment and Rural Development
Access and benefit sharing legislation	Regulation 19/2007 on land use planning
Definition of key terms (access, collection, utilisation and bioprospecting)	Clear definitions contained in Regulation 19/2007.
Ownership of genetic resources	Genetic resources are considered state property. However, local communities have rights to traditional knowledge associated with these resources.
ABS regulated at the national or subnational level?	ABS is regulated at the national level with some responsibilities shared with subnational authorities. This layered regulatory framework can increase compliance complexity for producers.
Prior informed consent (PIC)	Access to genetic resources and traditional knowledge is subject to PIC from local communities and relevant authorities.
Approval and involvement of communities	Criteria are set for the approval and involvement of indigenous and local communities in access to genetic resources and traditional knowledge.
Mutually Agreed Terms (MAT)	Legislation requires that MAT establish the conditions for access and benefit sharing.
Triggers for benefit sharing	Any utilisation of genetic resources triggers benefit sharing obligations.
Benefit sharing within the production chain	Obligations to share benefits apply throughout the production chain, from raw material suppliers to final product commercialisation.
Defining benefit sharing amounts	Benefit sharing percentages are not fixed by legislation but are determined through MAT.
Clear process of application	Unknown
Monitoring and reporting	Mozambique lacks designated checkpoints for monitoring ABS compliance.
Designated checkpoints and current reporting requirements	Mozambique has no designated checkpoints for ABS compliance, and its legislation lacks reporting requirements for ABS activities.
Fees for procedure	None
Website with documents	None
Intellectual property rights (IPR): Patentability of living organisms	Mozambique's legislation does not clearly address the patentability of genetic material.

South Africa

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South Africa became a Party to the Nagoya Protocol in 2014. It is often lauded as leading on ABS issues in Africa because of landmark industry-wide agreements in the Buchu and Rooibos sectors, though getting ABS permits is generally very slow.

The country's ABS framework is older than the Nagoya Protocol and was established under the National Environmental Management: Biodiversity Act (NEMBA) of 2004. NEMBA is reinforced by Bioprospecting, Access and Benefit Sharing (BABS) Regulations, which were introduced in 2008 and amended in 2015. They aim to ensure sustainable utilisation of biological resources, while promoting equitable sharing of benefits with local communities.

South Africa has developed a comprehensive administrative framework to manage ABS. The Department of Forestry, Fisheries and the Environment (DFFE) is the National Focal Point and Competent National Authority (CNA) for ABS.

PIC must be obtained from communities before accessing genetic resources. This ensures communities are fully informed about the intended use of their resources and the benefits they will receive. MAT outlines the terms under which genetic resources are accessed and the benefits shared, including both monetary and non-monetary benefits.

There is an established mechanism for industry-wide ABS negotiations where the traditional knowledge holders of a species are known.



The Department of Forestry, Fisheries and the Environment (DFFE) faces challenges such as insufficient human resource capacity and the need for improved coordination among different governmental departments and stakeholders.

The BABS Regulations also provide for the administration of a Bioprospecting Trust Fund, which manages the monetary benefits derived from bioprospecting activities and ensures they are directed towards conservation, research and community development.

Amendments to the BABS Regulations in 2015 aimed to strengthen the legislative framework to ensure better compliance and enforcement. These amendments include detailed provisions for the notification process, permit systems, and the criteria for benefit sharing agreements.

ABS permit process

The Biodiversity and Conservation branch of DFFE reviews permit applications and prepares documents for the Bioprospecting Advisory Committee (BAC). Permit applications can now be done online.

The BAC reviews applications in a process that can take up to a year. Upon completion, the DFFE submits documentation which progress to the Minister, who must assess whether the agreements are fair and equitable. Only the Minister has the right to sign an agreement.

Challenges

DFFE faces challenges such as insufficient human resource capacity and the need for improved coordination among different governmental departments and stakeholders. The permit application process can take a year or more.

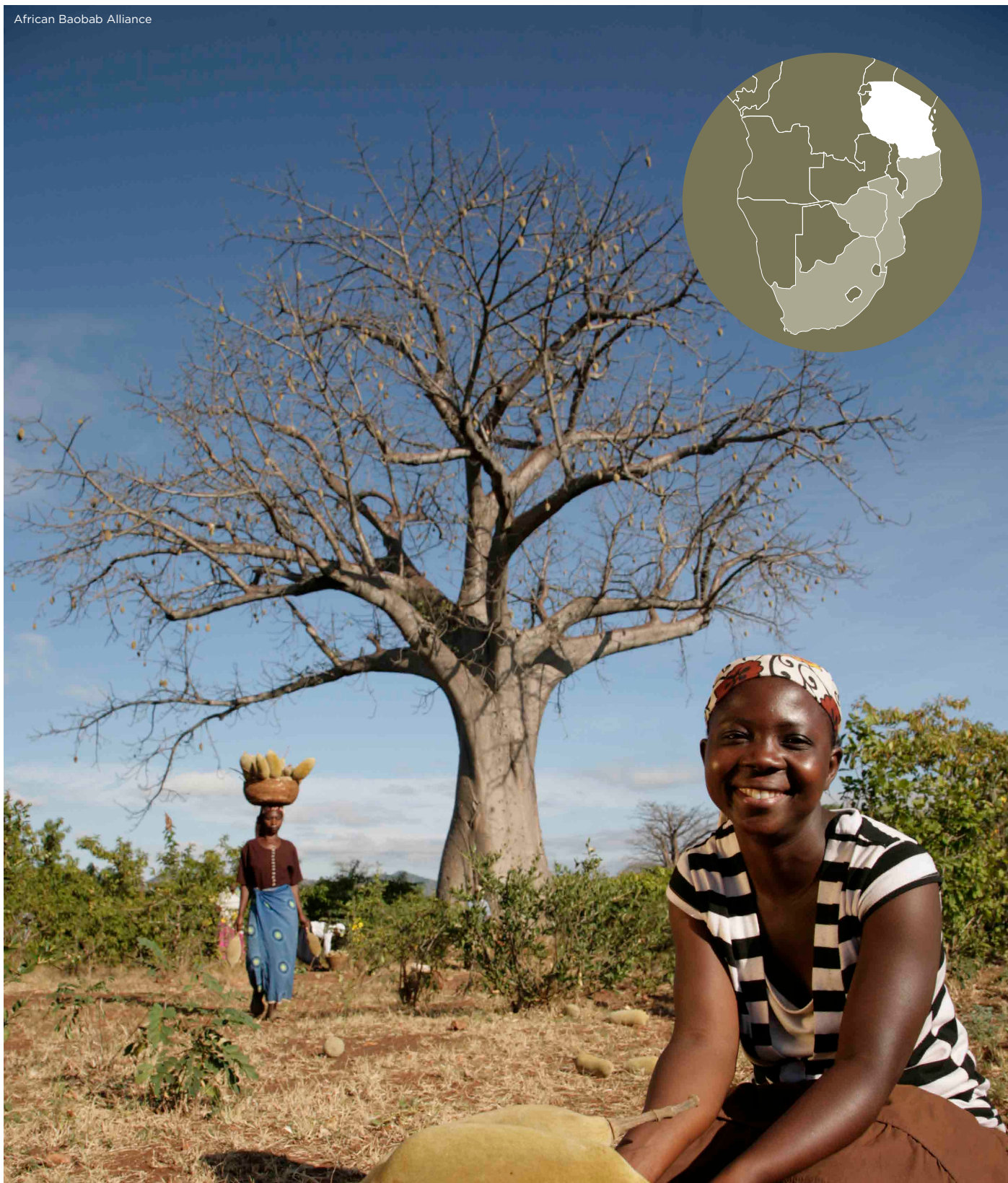


The Baobab Foundation supports under-resourced pre-schools in baobab harvesting areas in South Africa by providing educational toys, equipment and infrastructure, and early childhood development training.

Section	South Africa
Nagoya Protocol	Party since 12 October 2014
Competent authority	National Department of Forestry, Fisheries and the Environment (The Minister has the responsibility to grant access or issue evidence that access was granted).
Access and benefit sharing legislation	National Environmental Management Biodiversity Act (NEMBA) of 2004; the subsequent Bioprospecting, Access, and Benefit Sharing (BABS) regulations, 2008.
Definition of key terms (access, collection, utilisation and bioprospecting)	NEMBA (2004) and the BABS regulations provide clear definitions for access, collection, utilisation, and bioprospecting.
Ownership of genetic resources	Genetic resources are considered state property. However, local communities have rights to traditional knowledge associated with these resources. Traditional knowledge for Buchu, Rooibos and Honeybush is held by the National Khoi and San Council.
ABS regulated at the national or subnational level?	ABS is regulated at national level, with bodies like the National Khoi and San Council playing a role where species linked to traditional knowledge are involved.
Prior informed consent (PIC)	Access to genetic resources and traditional knowledge is subject to PIC from local communities and relevant authorities.
Approval and involvement of communities	Criteria are set for the approval and involvement of indigenous and local communities in access to genetic resources and traditional knowledge.
Mutually Agreed Terms (MAT)	There is a need to establish MAT as per the legislations.
Triggers for benefit sharing	Legislation requires MAT to establish terms of access and benefit sharing.
Benefit sharing within the production chain	Obligations to share benefits apply throughout the production chain, from raw material suppliers to final product commercialisation.
Defining benefit sharing amounts	Benefit sharing percentages are not fixed by legislation but are determined through MAT.
Clear process of application	The BABS regulations clearly outline the application process, including the steps required to obtain permits.
Monitoring and reporting	South Africa has designated checkpoints for monitoring ABS compliance, including customs and excise offices and research institutions.
Designated checkpoints and current reporting requirements	South Africa has designated checkpoints for monitoring ABS compliance, including customs and excise offices, and research institutions. Current legislation requires regular reporting on ABS activities to the Department of Forestry, Fisheries and the Environment.
Fees for procedure	Yes see in Annex (including non-refundable R100 for discovery stage).
Website with documents	https://www.cbd.int/countries?country=za https://www.dffe.gov.za/Policyandlegislation
Intellectual property rights (IPR): Patentability of living organisms	South Africa's legislation includes provisions for the disclosure of origin in patent applications involving genetic resources.
Any cases negotiated to date?	58
How long does the application process take?	Approximately 120 days.
Who can apply for a permit?	1. South African citizens or permanent residents. 2. Juristic persons registered under South African law. 3. Foreign individuals or entities, only if they apply jointly with a South African citizen, permanent resident, or locally registered juristic person.

Tanzania

African Baobab Alliance



Tanzania ratified the Nagoya Protocol in 2019, and its national policies and laws already provided a foundation for implementation. Its Access and Benefit Sharing (ABS) framework is primarily governed by the Environmental Management Act of 2004 and the subsequent Environmental Management (Control and Management of Genetic Resources) Regulations 2010.



Tanzania's ABS regulations mandate that benefits from the utilisation of genetic resources must be shared fairly and equitably with the resource providers, including local communities.

These regulations are designed to ensure the sustainable utilisation of genetic resources and promote equitable benefit sharing. They describe procedures for obtaining licences and permits.

Tanzania's regulatory framework involves multiple institutions. The Ministry of Natural Resources and Tourism (MNRT) regulates biodiversity matters. The Division of the Environment (DoE) within the ministry is headed by a director who acts as the focal point for Multilateral Environmental Agreements (MEAs). The DoE coordinates biodiversity matters with sector ministries. A Nagoya Focal Point has been appointed in the Vice President's Office.

Permits for access to genetic resources are processed and approved by the Ministry of Natural Resources and Tourism (MNRT).

The Ministry has National Agencies or Competent National Authorities (CNAs) that must be consulted for accessing research information on genetic resources.

The Vice President's Office (Division of Environment) serves as the National Focal Point for ABS. This office is responsible for the overall coordination of ABS activities, including the issuance of permits and monitoring compliance.

The Tanzania Commission for Science and Technology (COSTECH) acts as the CNA, overseeing the enforcement of ABS regulations and ensuring genetic resources are accessed and utilised according to national and international guidelines.

The regulatory framework also involves the National Environment Management Council (NEMC), and local government authorities.

Tanzania's ABS regulations mandate that benefits from the utilisation of genetic resources must be shared fairly and equitably with the resource providers, including local communities.

Tanzania has established mechanisms to monitor utilisation of genetic resources and ensure compliance with PIC and MAT requirements. However, there are ongoing efforts to develop more comprehensive models for internationally recognised certificates of compliance.

The Environmental Management Act and the 2010 ABS regulations are periodically reviewed to enhance their effectiveness and alignment with international standards.

The country has set up checkpoints at various stages of resource utilisation to ensure that all activities comply with ABS regulations. These include customs checkpoints, research institutions, and patent offices.

Enforcement of ABS regulations involves multiple agencies working together to ensure compliance. This includes the use of legal instruments and penalties for non-compliance. However, there is a need for more resources and capacity to enhance enforcement efforts.

Challenges

Despite a robust framework, challenges include limited capacity and resources to fully implement ABS regulations and monitor compliance effectively. There is a need for clearer guidelines and more robust mechanisms to ensure benefits reach the local communities. The enforcement of PIC and MAT provisions requires strengthening.

Section	Tanzania
Nagoya Protocol	Party to the Protocol but not a signatory.
Competent authority	The Tanzania Commission for Science and Technology (COSTECH) acts as the competent national authority, overseeing the enforcement of ABS regulations and ensuring that genetic resources are accessed and used in line with national and international guidelines (ABSCH, 2024).
Access and benefit sharing legislation	• Environmental Management Act of 2004 • Environmental Management (Control and Management of Genetic Resources) regulations, 2010.
Definition of key terms (access, collection, utilisation and bioprospecting)	The Environmental Management (Control and Management of Genetic Resources) regulations of 2010 define access, collection and utilisation as the obtaining of genetic resources and associated traditional knowledge for research and development.
Ownership of genetic resources	Genetic resources are considered state property. However, local communities have rights to traditional knowledge associated with these resources.
ABS regulated at the national or subnational level?	ABS is regulated at the national level, with the Vice President's office: division of environment overseeing national regulation, while subnational entities may also have roles in implementation.
Prior informed consent (PIC)	Access to genetic resources and traditional knowledge is subject to PIC from local communities and relevant authorities.
Approval and involvement of communities	Criteria are set for the approval and involvement of indigenous and local communities in access to genetic resources and traditional knowledge.
Mutually Agreed Terms (MAT)	Legislation requires that MAT establish the conditions for access and benefit sharing.
Triggers for benefit sharing	Any utilisation of genetic resources triggers benefit sharing obligations.
Benefit sharing within the production chain	Obligations to share benefits apply throughout the production chain, from raw material suppliers to final product commercialisation.
Defining benefit sharing amounts	Benefit sharing percentages are not fixed by legislation but are determined through MAT.
Clear process of application	The application process is clearly outlined in the Environmental Management regulations.
Monitoring and reporting	Tanzania has designated checkpoints for monitoring ABS compliance.
Designated checkpoints and current reporting requirements	Tanzania has designated checkpoints for monitoring ABS compliance, including customs, research institutions and patent offices, with regular reporting requirements to the Vice President's Office and Ministry of Natural Resources and Tourism.
Fees for procedure	Fees for applying for and issuing permits to access genetic resources are specified in the Environmental Management (Control and Management of Genetic Resources) regulations.
Website with documents	https://www.costech.or.tz/Policy&Guidelines
Intellectual property rights (IPR): Patentability of living organisms	Tanzanian legislation, as specified by COSTECH, requires the disclosure of origin in patent applications involving genetic resources.
Any cases negotiated to date?	Nil

Zimbabwe

African Baobab Alliance



Zimbabwe has a robust legal and institutional framework to manage its natural resources and ensure sustainable environmental practices, anchored on principles of integrated environmental management, local community participation and the equitable sharing of benefits arising from use of genetic resources.

The key legislative instruments include the Environmental Management Act (EMA), the Forest Act, the Communal Lands Forest Produce Act, and the Traditional Leaders Act.

Zimbabwe has designated NFPs and CNAs to facilitate compliance with the Nagoya Protocol and oversee the implementation of ABS regulations. Their responsibilities include granting access to genetic resources, monitoring compliance and providing information on ABS procedures.

Statutory Instrument 61 operates under the EMA and focuses on access to genetic resources and indigenous knowledge. It governs licences required by individuals or entities seeking to utilise genetic resources. PIC ensures fair and equitable benefit sharing with local communities, and it emphasises the rights of communities over their resources and associated knowledge.

International Certificates of Compliance (ICC) are issued through the ABS Clearing-House, and provide evidence of legal access to genetic resources and compliance with PIC and MAT requirements.

Zimbabwe is required to monitor the utilisation of genetic resources and report on compliance with the Nagoya Protocol. This involves regular inspections, data collection, and engagement with stakeholders to ensure adherence to ABS regulations.

Under Zimbabwe's ABS process the user applies for the use of genetic resources and/or traditional knowledge. They seek PIC from the local authority and communities and negotiate Mutually Agreed Terms and benefit sharing agreements.

The draft MAT and PIC are submitted to the Environmental Management Agency (EMA) which, guided by the ABS Committee, may make comments and send the user back to district authorities and communities for incorporation.

Once the MAT and BSA are finalised and agreed, EMA makes a request to the Ministry of Environment Climate and Wildlife as the National Focal point (NFP) to issue the internationally recognised certificate of compliance (IRCC).

Access or use is granted to the user and the NFP uploads the certificate onto the international ABS clearing house.

Challenges

The absence of a centralised system and too many competent authorities may lead to too much time and bureaucracy in negotiations.



Zimbabwe has a robust legal and institutional framework to manage its natural resources and ensure sustainable environmental practices, anchored on principles of integrated environmental management, local community participation and the equitable sharing of benefits arising from use of genetic resources.

Section	Zimbabwe
Nagoya Protocol	Party to the Protocol since 30 November 2017 but not a signatory.
Competent authority	Ministry of Environment, Climate and Wildlife
Access and benefit sharing legislation	- Statutory Instrument 61 of 2009, Environmental Management (Access to Genetic Resources and Indigenous Genetic Resource-based Knowledge) - Environmental Management Act (2002) (Chapter 20:27)
Definition of key terms (access, collection, utilisation and bioprospecting)	Clearly defined in SI 61 of 2009 except bioprospecting parameters.
Ownership of genetic resources	Genetic resources are considered state property. However, local communities have rights to traditional knowledge associated with these resources.
ABS regulated at the national or subnational level?	SI 61 of 2009, Section 8, states that certain rights over genetic resources and related traditional knowledge belong exclusively to the local authority or indigenous community as part of their common or customary heritage.
Prior informed consent (PIC)	Section 14(b) requires obtaining the explicit prior informed consent of the indigenous community before accessing their genetic materials or knowledge. The community has the right to refuse access if it harms their natural or cultural heritage. Any benefits must be calculated and disclosed to the community transparently and accurately.
Approval and involvement of communities	Section 14(b) requires that before accessing indigenous materials or knowledge, explicit prior informed consent must be obtained from the community.
Mutually Agreed Terms (MAT)	Not defined in current legislation.
Triggers for benefit sharing	Any utilisation of genetic resources triggers benefit sharing obligations.
Benefit sharing within the production chain	While the rights to negotiate ABS agreements lie with the local authority and district-level leadership, the National ABS Committee reviews the agreement before signing, and the Attorney General approves the final signing.
Defining benefit sharing amounts	Not defined
Clear process of application	Application process is clear including documents to be used.
Monitoring and reporting	The Environmental Management Agency oversees ABS monitoring and reporting.
Designated checkpoints and current reporting requirements	- RDC: Negotiates the ABS agreement on behalf of their communities. - Genetic Resources and Related Indigenous Knowledge Protection Committee: Reviews the agreement negotiated by the RDC; this committee includes technocrats and academics. - Attorney General: Reviews the agreements to ensure community rights are upheld. - Minister of Environment: Stamps the agreement upon the Attorney General's recommendation.
Fees for procedure	None. Local district authorities are expected to develop a licensing fee schedule under their ABS by-laws. However, most districts in Zimbabwe have neither adopted ABS-related by-laws nor domesticated SI 61/2009.
Website with documents	https://ema.co.zw/resources/ https://absch.cbd.int/en/countries/ZW
Intellectual property rights (IPR): Patentability of living organisms	Not clearly articulated
Any cases negotiated to date?	Nil

Harvesting process





GIZ/ABioSA/Jonathon Rees



GIZ/ABioSA/Jonathon Rees



GIZ/ABioSA/Jonathon Rees

Perception of ABS compliance among international buyers



Nagoya Protocol awareness and compliance is varied among international buyers of Baobab products. The survey revealed that **70%** of buyers are familiar with the Nagoya Protocol and its requirements. However, **30%** reported limited or no awareness.

Current impact of ABS compliance

- Compliance with the Nagoya Protocol has been seen to improve market access for **60%** of buyers, enhancing the reputation of their products and companies.
- **40%** of respondents noted that compliance can increase operational costs and complicate procurement processes due to the additional administrative requirements.

Studies have shown that consumers and regulatory bodies increasingly demand transparency and sustainability in product sourcing. This aligns with the survey findings that compliance enhances reputation but adds operational challenges.

Future impact of ABS compliance



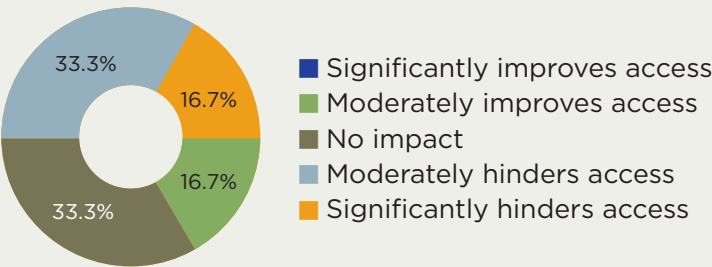
66.7% of buyers anticipate that increasing compliance among ABA members will improve access to Baobab products by ensuring sustainability and ethical sourcing.



33.3% expressed concerns about the potential for increased costs and complexity in the supply chain.

Producers have mixed feelings about how ABS compliance impacts or will impact access to Baobab resources. This is probably due to lack of awareness of ABS.

Producer perceptions of ABS compliance



Impact of ABS compliance or non-compliance on market access and pricing

55% **Compliance** enhances reputation and opens up new markets that prioritise ethically-sourced ingredients. However, 55% of buyers noted that compliance may moderately reduce market access due to higher costs and compliance complexities.

45% **Non-compliance** was seen as a significant hindrance to market access by 45% of respondents, especially in regions with strict ABS regulations. Non-compliance can lead to legal issues and damage to company reputation.

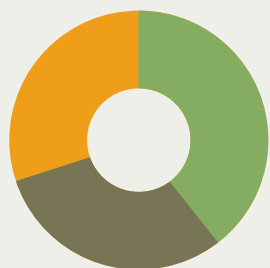
The study highlighted that compliance with the Nagoya Protocol is becoming a market differentiator. Non-compliance can result in exclusion from premium markets and potential legal challenges. This aligns with the survey findings that compliance generally enhances market access despite added complexities.

60% 60% of buyers reported that **compliance** tends to increase the pricing of Baobab products due to the costs associated with meeting ABS requirements.

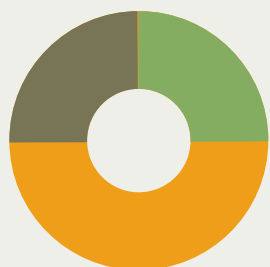
40% 40% indicated that **non-compliance** can lead to lower prices but at the risk of legal repercussions and market exclusion.

Many buyers appreciate the ethical sourcing and sustainability that ABS compliance brings but are concerned about the increased costs and administrative burdens. ABA members expressed the need for clearer guidelines and more streamlined processes to facilitate compliance without hindering their operations.

The survey revealed that:



- **40%** of companies have been compliant with ABS regulations for more than five years.
- **30%** have been compliant for two to five years.
- **30%** started their compliance journey within the last two years.



- **25%** of companies have been in the Baobab industry for more than ten years.
- **50%** of the companies have been in the sector for five to ten years.
- **25%** of the companies are relatively new, with less than five years of experience.

This information suggests that industry maturity correlates with better adherence to ABS regulations. Newer companies may require additional support to meet compliance standards.

Capacity needs of ABA members

Training and education

- Comprehensive training on ABS regulations is needed, particularly the Nagoya Protocol.
 - 55% of ABA members indicated a need for more detailed training.
- Training on sustainable harvesting practices to ensure the long-term availability of Baobab resources.
- Guidance on accessing international markets and navigating compliance requirements in different regions.

Technical assistance

- Assistance with understanding and implementing compliance procedures, including documentation and reporting.
- Support in adopting technologies that enhance production efficiency and product quality, especially for indigenous communities.

Financial support

- Grants and subsidies to cover compliance costs, including application fees, legal consultations, and certification processes.
- Access to affordable financing to invest in sustainable harvesting and production methods.

Infrastructure development

- Investment in local processing facilities to add value to Baobab products before export.
- Improving storage and transportation infrastructure to maintain product quality and reduce losses.

Capacity needs of international buyers

- Education on ABS compliance requirements and the benefits of adhering to the Nagoya Protocol. 60% of buyers expressed a need for more information on compliance.
- Training on ethical sourcing practices to ensure long-term supply chain stability.
- Tools and systems to monitor compliance with ABS regulations throughout the supply chain.
- Support in developing new products using Baobab that meet regulatory and market standards.
- Building stronger partnerships with ABA members to ensure compliance and sustainability.
- Platforms for sharing information and best practices related to ABS compliance and sustainable sourcing.
- Encouraging buyers to invest in sustainable practices within the supply chain, potentially through joint ventures or funding initiatives.
- Offering financial incentives for suppliers who demonstrate compliance with ABS regulations.

Recommendations for enhancing ABS compliance

By addressing the following key areas, the ABA can enhance the sustainability and marketability of Baobab products, ensuring fair and equitable benefit sharing while meeting international standards.

- Increase efforts to educate producers and buyers about the Nagoya Protocol and ABS requirements. This can be achieved through workshops, webinars and informational materials.
 - Only 50% of the ABA members reported having attended training on ABS compliance.
- Develop targeted training programmes to bridge the knowledge gap identified in the surveys.
- Streamline ABS compliance procedures to reduce complexity and costs.
 - About 65% of survey respondents indicated a need for simpler procedures.
- Provide technical and financial assistance to help producers and exporters meet ABS requirements. This can include grants, subsidies, and access to compliance resources.
 - 55% of the surveyed ABA members cited financial constraints as a barrier to compliance.
- Offer incentives for buyers who invest in sustainable sourcing practices and support compliance initiatives within their supply chains.
- Foster collaboration between ABA members, international buyers, and regulatory bodies to ensure a unified approach to ABS compliance. This can help in sharing best practices and overcoming common challenges.
- Establish partnerships between producers and buyers to enhance compliance efforts and ensure sustainable sourcing practices.
- Implement robust monitoring and reporting mechanisms to ensure ongoing compliance and address any issues promptly.
 - 60% of respondents indicated that better monitoring would enhance compliance rates.
- Develop systems for regular audits and assessments to ensure adherence to ABS regulations and promote transparency throughout the supply chain.

Key steps for achieving ABS compliance

- Producers must be familiar with their country's specific ABS regulations and potential customers must be familiar with requirements for obtaining prior informed consent (PIC) and establishing mutually agreed terms (MAT).
- Establishing communication with national focal points (NFPs) and competent national authorities (CNAs) to ensure proper guidance and support throughout the ABS process.
- Maintaining thorough documentation of the consent and benefit sharing processes to ensure legal compliance and facilitate monitoring.
- Negotiating benefit sharing agreements that outline both monetary and non-monetary benefits, ensuring fair distribution among all stakeholders.
- Ensuring active participation and consent from local communities, recognising their traditional knowledge and contribution to the conservation of genetic resources.
- Investing in capacity building initiatives to enhance the understanding and implementation of ABS principles among all stakeholders.

Opportunities for enhancing compliance and market access

- Benefit sharing with local communities can enhance livelihoods by developing new, marketable, and sustainable Baobab products that improve nutrition. The importance of traditional knowledge and the crucial role of indigenous communities in the conservation and sustainable use of biological resources cannot be overstated. Honouring and equitably sharing the benefits that come from use of traditional knowledge may lead to more knowledge sharing and greater innovation.
- Streamlining procedures for non-commercial research and adopting shorter, standardised processes can be advantageous. The ABS process timeline, from negotiation initiation to permit acquisition, is often lengthy due to complex requirements, local political challenges, and communication issues. Provider country authorities play a crucial role in offering guidance on the scope of ABS requirements.
- Utilising participatory technology development for capacity building effectively supports ABS processes. Facilitators can play a crucial role in supporting the ABS process, especially when many actors are involved.
- Conducting awareness-raising meetings and sharing project outcomes with community members and authorities facilitates collaboration. Commitment to ABS principles and openness of users to learning by doing helps support the process.
- A durable relationship with community partners can be established through the support of various stakeholders. Engagement with communities is a long-term investment, and managing high hopes and expectations is crucial, as benefits and funds are often insufficient to cover all needs.



African Baobab Alliance

Recommendations for the Africa Baobab Alliance (ABA)

Strengthening legal and regulatory frameworks

- ABA should advocate for the development and implementation of clear and comprehensive ABS regulations in member countries to ensure consistency and transparency. These regulations should align with the Nagoya Protocol and address local contexts.
- Encourage member countries to harmonise their ABS laws with regional and international standards to facilitate cross-border cooperation and compliance.

Enhancing institutional capacity and coordination

- Invest in building the capacity of national focal points (NFPs) and competent national authorities (CNAs) to effectively manage and enforce ABS regulations. This includes training on legal, technical, and administrative aspects of ABS.
- Establish coordination mechanisms between different government agencies, the private sector and local communities to streamline ABS processes and ensure efficient implementation.

Promoting effective benefit sharing mechanisms

- Create standardised templates for benefit sharing agreements that outline clear terms and conditions, ensuring fair and equitable distribution of benefits among all stakeholders.
- Provide guidance and support to local communities in negotiating benefit sharing agreements to ensure their interests are adequately represented.

Strengthening monitoring and compliance

- Develop and implement robust monitoring and reporting systems to track utilisation of genetic resources and ensure compliance with ABS regulations. This includes regular audits and inspections.
- Promote transparency in ABS processes by making relevant information accessible through platforms like the ABS Clearing-House.

Enhancing stakeholder engagement

- Conduct awareness campaigns and training programmes to educate all stakeholders, including local communities, about ABS regulations and their rights and responsibilities under the Nagoya Protocol.
- Encourage active participation of local communities in ABS processes, recognising their traditional knowledge and contributions to conservation efforts.

Specific recommendations for the Baobab sector

- Encourage sustainable harvesting practices for Baobab to ensure the long-term availability of this valuable resource. This includes training on sustainable techniques and the establishment of guidelines for harvesting.
- Assist ABA members in developing new, marketable Baobab products that comply with ABS regulations and meet international quality standards.

Steps companies should take on ABS

Increase understanding

- Gain knowledge of evolving international and national ABS laws and best practices.
- Understand the practical implications of these laws.
- Utilise resources from organisations like UEBT, which offer introductory materials and capacity building courses for both members and non-members.

Gather information

- Collect information on ABS laws and regulations in countries where sourcing activities occur.
- This step is crucial for establishing a due diligence system under European ABS regulations.
- Use resources like the ABS Clearing-House, UEBT fact sheets, assessments, and other ABS tools.

Realise broader implications

- Recognise that ABS is not just about legal compliance.
- Claims of 'biopiracy' often arise from situations that do not respect ABS principles, even if they do not violate laws.
- UEBT has developed a framework addressing risk and responsibility factors linked to ABS, including species, research type, intellectual property protection, and marketing claims.

Mainstream ABS

- Integrate ABS into company activities.
- Identify control points within purchasing, sustainability, research and innovation, product development, legal, and marketing departments.