African Biotrade Festival
18 – 19 September 2025

SUMMARY REPORT

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Introduction

This is the summary report of conference proceedings at the second African Biotrade Festival (ABF) held at the Sandton Convention Centre in Johannesburg from 18 to 20 September 2025.

The second ABF was hosted by South Africa's Department of Forestry, Fisheries and the Environment, and through the BioPANZA initiative with the Department of Trade, Industry and Competition (the dtic) and the Department of Science, Technology and Innovation (DSTI).

It was organised in collaboration with Organic & Natural Expo Africa, with close participation of the GIZ ABioSA and BIA projects. ABF is a multi-stakeholder platform to explore action-orientated solutions to overcome market barriers through brokering knowledge flows between biotrade actors.

ABF 2025 and the Organic & Natural Products Expo Africa had 125 South African and 91 regional or African exhibitors. Sixty small biotrade businesses were supported by the ABF organisers together with ABioSA and its partners, twice as many as 2023. The event attracted 4,219 verified visitors and featured more than 200 exhibitors from more than 10 countries, including South Africa, Lesotho, Botswana, Namibia, Ghana, Mauritius, China and the US.

Organised under the theme 'Indigenous plant products and ingredients for food, health and beauty', ABF is a vibrant marketplace attended by investors, researchers, buyers and innovators from the food, fragrance, flavours, ingredients and cosmetics sectors, biotrade producers, suppliers and communities.

Key topics at the ABF conference included sustainable supply, conservation, market access, finance, regulatory compliance and global competitiveness.

One of the highlights of the event was the signing of a landmark ABS agreement between Traditional Knowledge Holders and industry partners in the Honeybush sector.

The ABF 2025 presentations can be viewed and downloaded at https://www.abs-biotrade.info/projects/abiosa/resources/

A landmark ABS agreement was signed between Traditional Knowledge Holders and industry partners in the Honeybush sector.

Conference programme

Day 1: Thursday, 18 September 2025		
8:30	**Arrival and registration**	
	Conference space	**Workshop space**
09.00	**Opening plenary** • Traditional Knowledge (TK) Holder opening of the ABF • Launch of BioPANZA • TK Holder response to BioPANZA • Setting the scene for BioPANZA cluster sessions • Closing remarks	
12.30	**Lunch break**	
13.30	**Market Access Cluster** • Species sector-wide review findings • Enterprise pipeline management tool workshop	**Sustainable Supply Cluster** • Sustainable sourcing and utilisation of indigenous biological resources within the bioprospecting and biotrade sectors.
15.00	**Break**	
15.30	**Finance Cluster** • Financial mechanisms for the biotrade sector: the example of Marula fruit.	**Innovation Cluster** • Promoting local value addition by encouraging applied research, innovation and product development.
Day 2: Friday, 19 September 2025		
	Conference space	**Workshop space**
9:00	**Biodiversity Monitoring Tool/BioMoT (plenary):** A species and market intelligence tool for public and private use supporting the SA biotrade sector.	
	Break	
10:30	**Regional biotrade collaboration (Marula)** • Growing southern Africa's Marula industry through regional collaboration, sector development planning, geographical indication advancements, and market access with EU Novel Food application.	**Policy and Legislation Cluster** • Indigenous biological resource Traditional Knowledge Holder, access provider and industry dialogue workshop.
13:30	**Lunch break**	
14:30	**Wrap up (plenary)** • Report back from cluster sessions • Way forward	
Day 3: Saturday, 20 September 2025		
	Consumer day	

Opening plenary

At the opening of the plenary programme, the moderator **Mr Khorommbi Matibe** stated that entrepreneurs at the African Biotrade Festival (ABF) are proudly showcasing made-in-Africa products to the world, highlighting the continent's creativity and potential. Through strategic partnerships with counterparts, they are nurturing a new generation of entrepreneurs who add value to local resources. This was a call to connect, collaborate, and catalyse change, with initiatives aligned across BioPANZA's key clusters.

Mr Khorommbi Matibe, Chief Director: Biodiversity Economy & Sustainable Use at the Department of Forestry, Fisheries and the Environment, called for all BioPANZA stakeholders to collaborate across its initiatives.

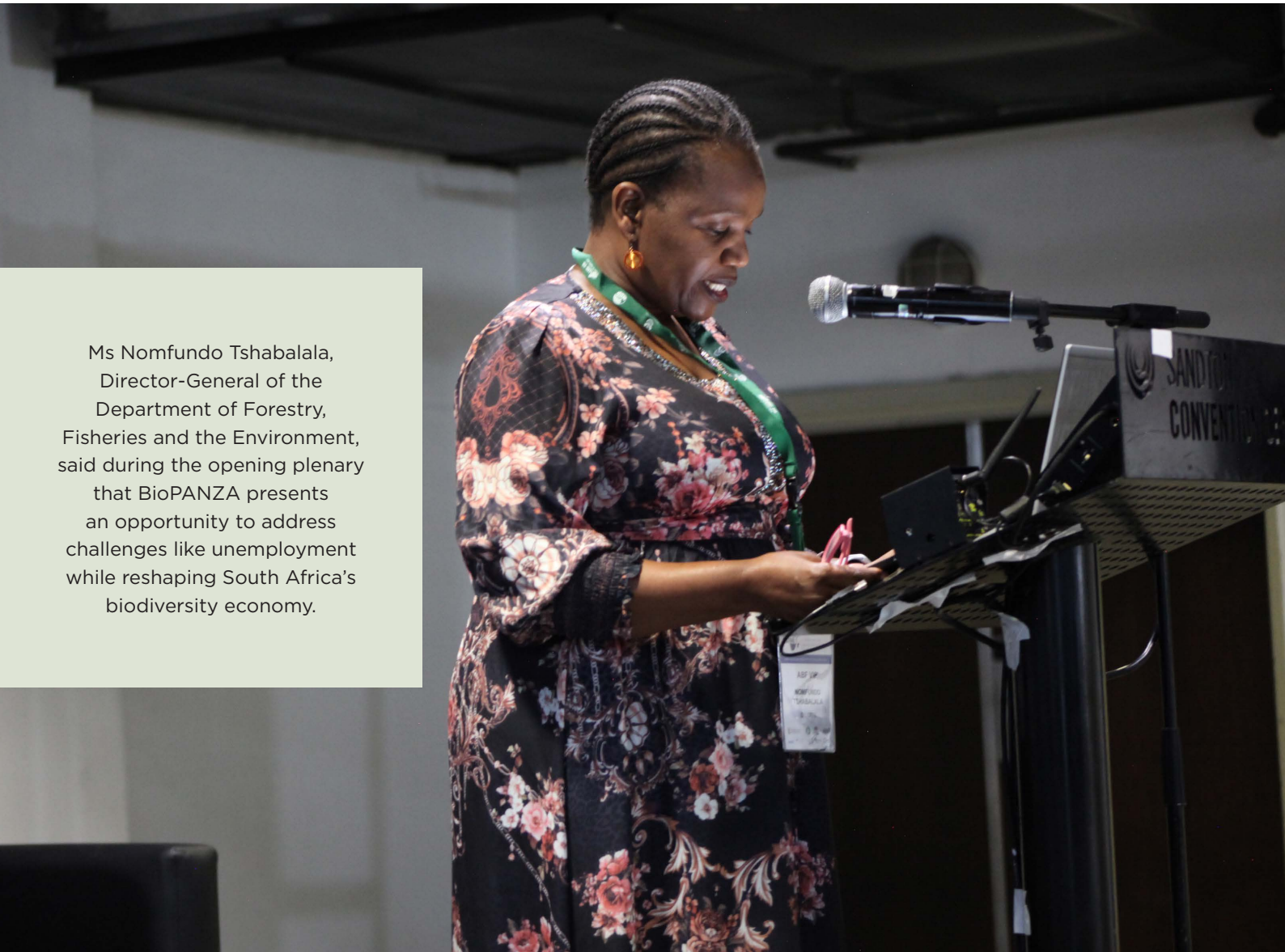
Delegates attend the opening plenary of the African Biotrade Festival conference.

Ms Leana Snyders, Director of the San Council of South Africa, told an inspiring story entitled ***'A bioprospecting economy journey and personal insight from a Traditional Knowledge Holder'***. She explained how the journey began and evolved into an agreement that enables communities to be heard and to play an active economic role at every stage of the value chain, rather than only serving as harvesters. For generations, indigenous communities have used genetic resources like Buchu, Honeybush, and Sceletium – not just as products, but as part of their culture. Yet, when these resources entered the global economy, the indigenous communities behind them were excluded. Since 2010, the San Council has fought for its rightful place in access and benefit-sharing (ABS) systems, often sharing in good faith yet still facing exploitation. A turning point came with the establishment of a Benefit-Sharing Trust, which brought real

Opening plenary

improvements to communities through health initiatives, food security projects, cultural preservation, and women's empowerment. Today, San women have moved from Traditional Knowledge Holders to active participants in the entire value chain – developing their own brands, conducting research, and training others. This journey shows that real products require real partnerships – transforming the industry through equity, respect, and collaboration between communities, researchers, companies, and consumers.

Ms Nomfundo Tshabalala, Director General of the Department of Forestry, Fisheries and the Environment (DFFE), then presented an ***'Overview of the BioPANZA initiative of the biodiversity economy'***. She discussed the Bioproducts Advancement Network of South Africa (BioPANZA) as an opportunity to address some of the country's challenges, such as unemployment, by reshaping the biodiversity economy to unlock the potential of South Africa's biological resources. She said the ABF is a celebration of nature, innovation, and the opportunities that lie in South Africa's rich biodiversity – home to more than 95,000 species. Biodiversity is not only a source of beauty but also a driver of business, with the biotrade sector offering high-quality, globally recognised ingredients rooted in sustainability. Investing in South Africa's biotrade is a legacy decision – one that builds inclusive value chains and supports equitable benefit-sharing. She highlighted the launch of BioPANZA – a coordinated, multi-stakeholder platform structured into clusters – spanning innovation, sustainable supply, finance, policy and legislation, and market access. BioPANZA aims to strengthen the biodiversity economy at a systems level. Finally, she called on ABF participants to celebrate their collective responsibility to use biodiversity sustainably and share its benefits fairly. She thanked all partners for their commitment to this vital initiative.



Ms Nomfundo Tshabalala, Director-General of the Department of Forestry, Fisheries and the Environment, said during the opening plenary that BioPANZA presents an opportunity to address challenges like unemployment while reshaping South Africa's biodiversity economy.

Opening plenary

BioPANZA recipient panel

The second session of the conference started with a panel discussion entitled ***'BioPANZA recipients' reflections: Strengthening the bioprospecting value chain and stakeholder collaboration'***. This session was moderated by **Ms Natalie Feltman**, Director of Bioprospecting and the Biodiversity Economy at the DFFE.

The panel opened with a private-sector perspective from **Mr Ulrich Feiter,** CEO Parceval and chair of the Southern African Botanical Products Association. He emphasised the importance of meeting market requirements and compliance mechanisms through the valorisation of those products. Parceval was one of the first companies to receive a bioprospecting permit. Mr Feiter further highlighted a historic opportunity to strengthen collaboration across government departments and industry stakeholders. Strategic progress must be driven by listening to stakeholder needs and building a supportive ecosystem. The goal is to create a "pull economy" by developing products that attract international buyers and can effectively compete in global markets. Then he stressed that to succeed, South African bioproducts must meet international standards, replace existing products, and comply with complex regulations – challenges the Market Access Cluster of the BioPANZA aims to address.

Ms Leana Snyders added that, from a community perspective, this is a journey of learning. She expressed the need for capacity development to support market access – not only monetary benefits – and called above all for transparent benefit sharing and integrity. She stated that the Rooibos benefit-sharing agreement represents an ongoing process toward greater equity and inclusion. Communities that were once invisible in the later stages of the value chain, have since taken ownership by developing their own products rather than relying on external formulators. The goal now is to move beyond royalty payments and focus on building skills and creating sustainable jobs within these communities.

Ms Leana Snyders, Director of the San Council of South Africa, said that a Rooibos benefit-sharing agreement has empowered communities to develop their own products.

Opening plenary

Ms Cairo Nchabeleng, Director of the Greater Sekhukhune Region Secondary Cooperative Ltd., discussed the challenges faced by cooperatives in participating meaningfully in the biotrade sector. She emphasised the need for access to finance to add value to the Marula fruit harvested by the cooperative. She also noted the rigid requirements for accessing finance. Currently, the harvesters in the cooperative receive very low remuneration for harvesting Marula, and she pointed out that this needed to change. She also highlighted the need for support in navigating IP rights.

Next**, Dr Rhoda Malgas** from Nelson Mandela University stated that researchers should be seen as service providers to society, supporting cooperatives with their various needs. She stated that researchers are always looking for ways to benefit communities through their research. She also urged researchers to take a broader view of the species they study by ensuring they understand policies related to those species. From an academic perspective, BioPANZA provides an opportunity to share research results with the sector.

Last, **Ms Adrie El Mohamadi**, Component Manager for GIZ projects implemented in partnership with the DFFE, ABioSA and BIA, stated that it is crucial for the network to expand beyond South Africa. She added that the future ideal should be the establishment of a pan-African biodiversity advancement network that links up with similar initiatives in other countries. Regional collaboration is vital because many species are found in neighbouring countries. She proposed the idea to host a biannual pan-African biodiversity event to bring together stakeholders and establish a regional organisation to align bioprospecting and biotrade regulations, thereby making it easier to do business. This effort would also support south-south collaboration by building on existing partnerships, such as the exchange between South Africa and Brazil, to share best practices in benefit-sharing and empowerment of local communities.

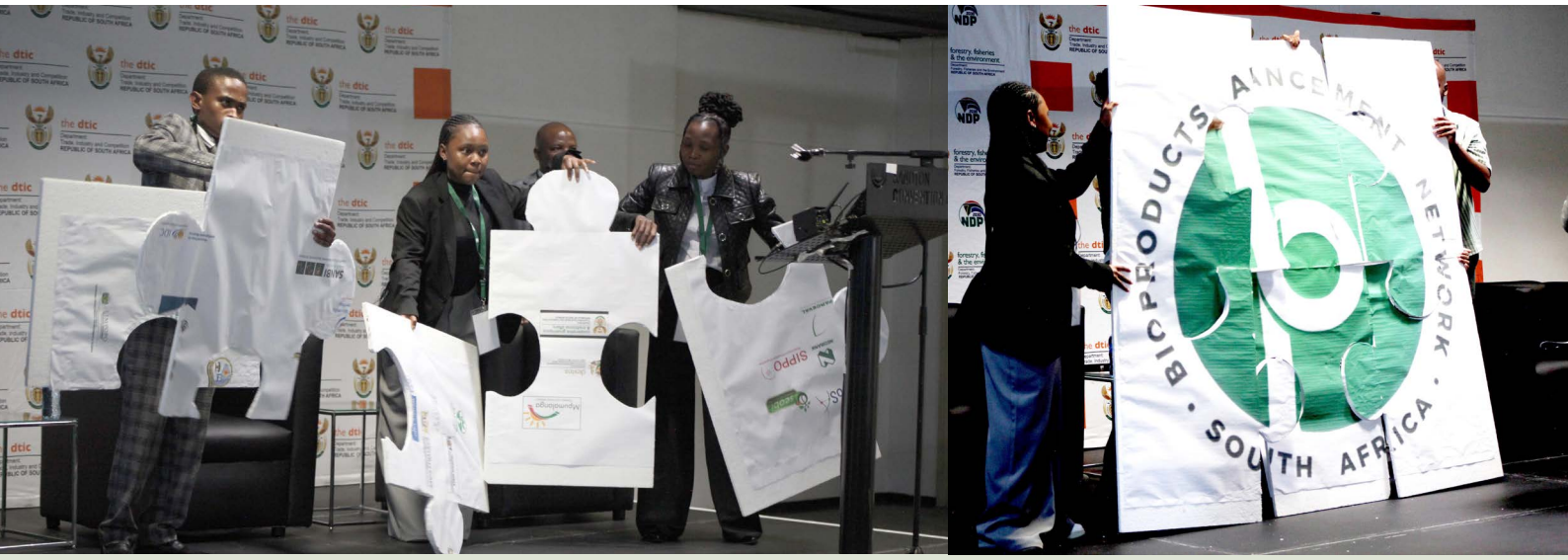
Dr Rhoda Malgas, from Nelson Mandela University, urged cooperatives to call on researchers for the support they need.

Ms Adrie El Mohamadi, Component Manager for GIZ projects, suggested that a pan-African biodiversity network be created.

Opening plenary

The panellists summarised the vision for BioPANZA as follows: Coordination, cooperation, trust, integration, ease of inclusive business, collaboration with communities, and community impact.

The BioPANZA recipient panel was followed by a symbolic demonstration in which participants assembled puzzle pieces, representing the cooperation between all role players in the network.



In a symbolic demonstration, participants assembled puzzle pieces representing the cooperation between all role players in BioPANZA.

Mr Narend Singh, Deputy Minister of the Department of Forestry, Fisheries and the Environment, speaks to exhibitors at the African Biotrade Festival.

Closing remarks

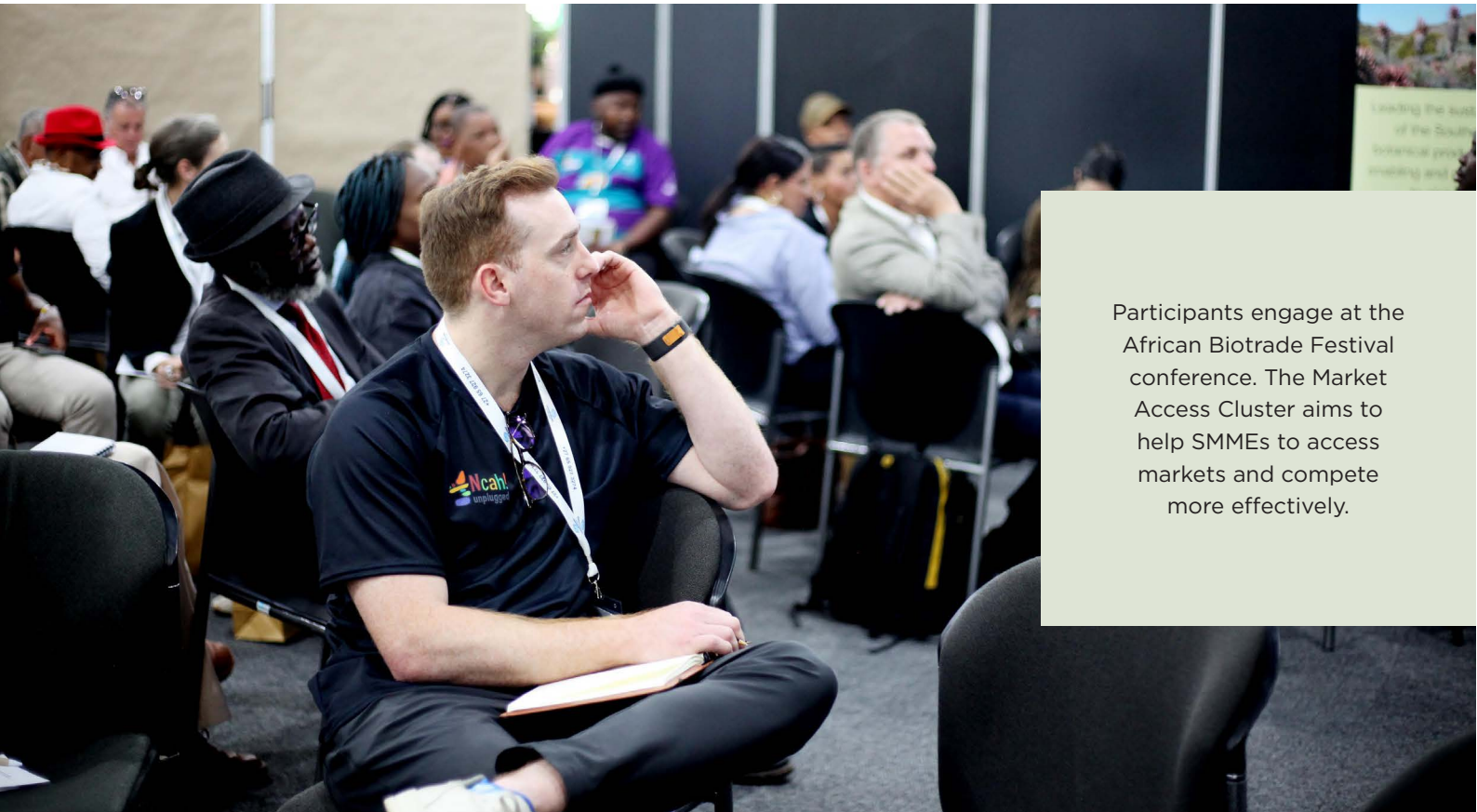
Mr Narend Singh, Deputy Minister of the Department of Forestry, Fisheries and the Environment, closed this first session by highlighting the essential role of youth in leading sustainable development and driving the future of the African biotrade sector. He underscored the need for stronger cross-departmental government cooperation and deeper collaboration with all stakeholder groups for more impactful and inclusive outcomes. He stated that the African Biotrade Festival – and the many initiatives, projects, and products it showcases – reflects a shared vision of Africa not only as a supplier but as a global leader in ethical and sustainable biotrade. He noted that visitors come to the conferences and the exhibition to deepen their collective understanding of how government can support initiatives that protect biodiversity, empower communities, and honour traditional knowledge. He emphasised that biodiversity products are more than commodities – they form part of a living cultural legacy. He said that through platforms like BioPANZA – which acts as a trusted broker between communities and the private sector – value chains can be strengthened, innovation supported, and benefits channelled back to communities. This, he added, helps build an ethical, inclusive, and world-class biotrade sector that serves both people and the planet.

Market Access Cluster

Theme: Species sector-wide review findings

The first afternoon session at the conference area of the African Biotrade Festival focused on the Market Access Cluster (MAC). The MAC introduced its vision, objectives, and planned activities aimed at supporting South African SMMEs in the biotrade sector. The MAC seeks to enhance local value addition, ensure compliance with international standards, and drive transformation, ultimately enabling SMMEs to access markets and compete more effectively. Central to its strategy is the focus on 25 priority species for cultivation, alongside seven key species selected for sustainable harvesting. Six of these species have dedicated sector development plans: Marula, Baobab, Buchu, Honeybush, Aloe ferox, and a cluster of essential oils.

Sandra Kruger from Kruger Swart & Associates (KSA) presented the findings of a comprehensive species sector-wide review, which focused on the above-mentioned species supported by the ABioSA project, with the addition of Sceletium. The review reported positive progress in institutional development, quality standards, research and development, market access, and community engagement. It also reported that the institutionalisation of the collection of production, trade and employment data by some of these associations has, for the first time, provided quantitative baseline data on volumes, hectares under cultivation, average prices and sector employment (permanent and seasonal). Key lessons identified included the importance of engaging Traditional Knowledge (TK) Holders outside formal negotiations to foster mutual understanding, the need to distinguish visibility from actual sales performance, and the value of focusing on both local and international markets. It also highlighted that harvesters could play a crucial role in resource monitoring and that SMMEs require diverse support, particularly blended finance. While sector institutions have matured, their financial sustainability remains a challenge – making it essential for industry associations to work toward self-sufficiency while recognising their potential multiplier effects.



Participants engage at the African Biotrade Festival conference. The Market Access Cluster aims to help SMMEs to access markets and compete more effectively.

Market Access Cluster

The session concluded with a practical workshop on the ***Enterprise Pipeline Management Tool***, designed by **Prime Africa Consultants** to systematically classify SMMEs in the biotrade sector and tailor support pathways based on their development stage. The framework and accompanying questionnaire were presented, which will help assess the maturity of value chains and guide future interventions. Participants were divided into groups representing the emerging, established, growth-ready, and export-ready SMMEs categories. Each group provided constructive feedback on the tool's content, contributing to its refinement and ensuring its relevance to the diverse needs of businesses across the sector.

The way forward for the Market Access Cluster is to use this tool to assess SMMEs in 2026, with the aim of referring them to the most relevant technical or financial support organisations. This will ensure they receive the support they need.

View and download the Market Access Cluster presentations here.

Market Access Cluster introduction

Species sector-wide review findings 1

Species sector-wide review findings 2

Sustainable Supply Cluster

Theme: Sustainable sourcing and utilisation of indigenous biological resources within the bioprospecting and biotrade sector.

The Sustainable Supply Cluster session began with an introduction to the theme of conservation and sustainable use through a presentation titled ***'Conservation and sustainable use of biotraded species'*** by **Neil Crouch** from the South African National Biodiversity Institute (SANBI). He highlighted the critical importance of collaboration and the active involvement of all stakeholders to ensure that the use of biological resources does not compromise their long-term sustainability. The presentation emphasised the need to find a balance between biodiversity conservation and socio-economic development in South Africa. Grounded in South Africa's constitutional and legislative framework, particularly Section 24 of the Constitution and the NEMBA Act, the presentation outlined key principles for sustainable use, including ecosystem protection, benefit-sharing, adaptive management, and conservation through use.

Through case studies such as Aloe ferox harvesting and Rooibos cultivation, the presentation illustrated both the opportunities and risks of bioresource exploitation, noting that expansion without careful management can lead to biodiversity loss. It further introduced the *Integrating the Conservation and Sustainable Use of Biodiversity in Access and Benefit-Sharing Approaches in South Africa (BS4CSU) Guideline* document – a framework developed to support conservation through sustainable use by defining clear objectives, actions, and monitoring criteria. Overall, the presentation reinforced that biodiversity conservation and human wellbeing are interconnected, and sustainable use when properly managed can simultaneously drive ecological protection, community empowerment, and economic growth.

Delegates listen attentively during the African Biotrade Festival conference. The Sustainable Supply Cluster promotes the use of biological resources in ways that ensure their long-term sustainability.

Sustainable Supply Cluster

Following this, **Professor Stephen Amoo** and **Dr Meshack Mofokeng** from the Agricultural Research Council (ARC) shared insights on ***'Research and development in cultivation practices of indigenous biological resources'***.

The ARC presented an overview of its work on cultivating and sustainably managing indigenous medicinal and biological resources to ensure a reliable and high-quality supply for the biotrade sector. The presentation highlighted the challenges of wild harvesting such as inconsistency, unreliable supply, and compromised quality. It emphasised cultivation as a critical strategy for conservation, preservation of traditional knowledge, and commercialisation.

ARC's research focuses on optimising propagation and cultivation techniques, including studies on seed dormancy, vegetative propagation, irrigation, nutrient application, and environmental conditions affecting yield and compound quality. These efforts aim to standardise cultivation protocols, improve yield consistency, and maintain the chemical integrity of plant-based products. The Council's work demonstrates how scientific innovation can support sustainable use, quality assurance, and economic viability within the biodiversity economy, bridging traditional knowledge with modern agricultural practices.

Ana Sampson from Parceval gave an inspiring presentation on ***'The Aloe ferox sustainable harvesting guidelines'***, which highlighted the importance of understanding local practices and engaging all stakeholders. Her work showed how well designed guidelines can simultaneously support community empowerment and the conservation of biodiversity. The guidelines aim to ensure the long-term sustainability and equitable benefit-sharing of Aloe ferox resources while maintaining ecological balance and supporting local livelihoods dependent on the plant. They emphasise a "sustainable actions for a better future" approach that aligns environmental conservation with responsible commercial utilisation.

In summary, the Aloe ferox guideline serves as a practical tool for sustainable wild harvesting, ensuring conservation, fair trade, and the resilience of both ecosystems and rural economies connected to the species.

The next presentation, ***'Starting a business to cultivate indigenous biological resources – The case of Honeybush cultivation by Kaukou (Pty) Ltd'***, by **Theo Adams** introduced participants to the transformation and development journey of the Herold Meander Farm. This project combines the protection of cultural heritage with the development of an environmentally and financially sustainable farm. The farm's unique products, under the brand name "Kaukou", were also showcased during the event.

The farm, acquired in 2018 after years of abandonment, has been revitalised with a focus on sustainability, biodiversity, and community-based agro-economy, integrating agriculture, agro-processing, and agritourism. The farm has developed 20 hectares of Honeybush plantations, produces its own seedlings, and practices sustainable wild harvesting in collaboration with permit holders. Kaukou's plans include product diversification (e.g., teas, extracts, cosmetics, and beverages), obtaining organic and fair-trade certifications, and expanding market access through trade shows and export support. Additionally, the initiative seeks to enhance Honeybush tourism by developing a Honeybush Hub and heritage route, creating opportunities for education, entrepreneurship, and cultural promotion. Overall, Kaukou Honeybush presents a model of sustainable cultivation, processing, and market integration, addressing the transformation and growth goals of the biodiversity-based biotrade sector.

To close the session, **Dean Christensen** from U Can Grow presented ***'Democratising agriculture for non-food indigenous plants of South Africa'***. The project "The Dream" aims to connect small-scale farmers to global supply chains, addressing the barriers they face. He stressed the importance of recognising local knowledge, building human connections, and inspiring youth to remain and thrive in rural areas. The

Sustainable Supply Cluster

presentation highlighted the challenges faced by small-scale farmers in South Africa who are often excluded from global supply chains due to poor market linkages, lack of finance, limited traceability, inconsistent product quality, and low production volumes. It emphasised that only a small fraction of climate finance reaches these farmers, despite their critical role in agricultural production.

To address these issues, the initiative proposes connecting small-scale farmers – particularly those cultivating indigenous plant species for food and non-food uses – to global markets through innovation, finance, and policy alignment. It calls for collaboration among strategic partners to enhance sustainable supply chains, improve market access, and promote digital monitoring systems for traceability of crops, offtake, and farmer performance.

The project envisions an inclusive agricultural model that leverages technology and coordinated investment to empower smallholder farmers, ensuring their participation in sustainable trade and contributing to poverty reduction, food security, and biodiversity conservation.

View and download the Sustainable Supply Cluster presentations here.

Research and development in cultivation practices of indigenous biological resources

Aloe ferox sustainable wild harvesting guidelines

Democratising agriculture

The conservation and sustainable use of biotraded species: principles and approaches

Kaukou Honeybush

Finance Cluster

Theme: Financial mechanisms for the biotrade sector: the example of Marula fruit.

This session focused on exploring financial mechanisms that can support the growth and sustainability of the biotrade sector, using Marula fruit as a case study. The session underscored that this would require coordinated efforts across finance, research, community engagement, and regulatory alignment.

Dagmar Honsbein, a consultant for the BioInnovation Africa (BIA) project, opened the session by presenting findings from a study on the financial needs of SMMEs in the biotrade sector. The study highlighted the typical challenges these enterprises face in accessing finance, such as high-risk perceptions and a lack of tailored funding instruments. Drawing lessons from the agricultural sector, Dagmar emphasised the importance of demonstrating sustainable impact to attract funding and stressed that blended finance approaches, such as those piloted by ABioSA, are crucial for building trust between investors and the sector. A key conclusion was the need to develop a robust pipeline of investment-ready SMMEs.

Cyril Lombard, advisor to the BIA project in South Africa, highlighted the potential of Marula to become Africa's next superfruit – representing significant, untapped opportunities for farmers, cooperatives and SMMEs.

Cyril Lombard, advisor to the BIA project in South Africa, presented the case of Marula fruit (see page 29 of the presentation). The market potential was illustrated through examples of globally successful "superfruits". He then presented the case for Marula to become the next superfruit from Africa based on robust scientific evidence. The fact that Marula is so abundant across southern Africa therefore represents a major untapped potential for farmers, cooperatives, SMMEs and other innovative businesses, theoretically involving tens of thousands of livelihoods. The question was asked – how can this potential be realised, and what funding would it require? Both micro-level and meso-level support requirements were briefly presented. At the meso-level, a draft Marula fruit sector development plan was presented with indications of funding requirements. The major costs comprised addressing market access barriers, which were complex and expensive, requiring collaboration through an association.

Finance Cluster

During an **exchange involving SMMEs, BSOs, investors, and funders**, participants provided insights into their experiences with regards to Marula fruit and financial and other resources required from their perspectives. **Ms Cairo Nchabeleng** of the Greater Sekhukhune Regional Secondary Cooperative, and **Mr Caledon Netshiweta** of Vhembe Reforestation Project (Pty) Ltd, described the abundance of their Marula fruit resources and their plans to develop businesses using the fruits. These emerging businesses explained that when dealing with fresh Marula fruit, infrastructure close to the resource base was required, and they expressed enthusiasm in cooperating with local universities. However, securing finance was extremely challenging. **Mr Gary Scallan** of Afrika Botanicals described his experience exporting Marula fruit products to Brazil and encountering regulatory challenges. Whilst the market opportunities were positive, addressing these regulatory hurdles required specialised services and resources. **Professor Kgabo Moganedi** of University of Limpopo described her innovative work with Marula fruit and wine product development. Her experience indicated multiple product opportunities from Marula fruit that could become business opportunities for local SMMEs. However, she also pointed to the difficulty in raising funds for this research and commercialisation work.

Other experts and small businesses spoke about multiple commercial opportunities with Marula fruit, but they also experienced many technical and regulatory challenges and difficulty raising funding, especially for pre-revenue projects.

Finally, a representative from the Industrial Development Corporation (IDC), **Mr Daniel Matlhare**, presented available funding programmes and stressed the importance of having a well-developed business plan to access such financial support.

View and download the Finance Cluster presentation here.

Financial mechanisms for the biotrade sector: the example of marula fruit

Innovation Cluster

Theme: Promoting local value addition by encouraging applied research, innovation and product development.

Delegate Johan Kritzinger joins a session at the African Biotrade Festival conference. The Innovation Cluster highlight the role of applied research and innovation in valorising South Africa's biodiversity.

The Innovation Cluster session highlighted the role of applied research and innovation in valorising South Africa's biodiversity, emphasising the integration of Indigenous Knowledge with science to create competitive, culturally respectful products.

The session opened with a presentation by **Professor Nokwanda Makunga** from Stellenbosch University on the anti-cancer properties of South African medicinal plants. Notably, *Dodonaea viscosa* has demonstrated in vitro effectiveness in reducing melanoma cells. While traditional knowledge from communities such as the Cape Bush Doctors is gaining recognition, many indigenous species still require deeper chemical characterisation. Initiatives like the 1KSA project are addressing this by providing reference genomes and advancing the development of rigorously tested plant-based pharmaceuticals. This research is grounded in partnerships between biotechnology and Indigenous Knowledge Systems (IKS), ensuring both scientific progress and equitable benefit-sharing. Programmes like BioPANZA support this ecosystem by connecting researchers to markets and promoting the standardisation of raw materials to improve market access.

Dr Marco Nuno De Canha from the University of Pretoria followed with a presentation on the *Greyia genus* and its potential to treat skin hyperpigmentation. He emphasised South Africa's rich biodiversity as a source of innovative cosmeceutical ingredients with growing global appeal. Ethical collaboration between Indigenous Knowledge Holders, researchers, and industry is essential to unlocking this potential, alongside the generation of robust pre-clinical and clinical data to ensure safety, efficacy, and market readiness. It is crucial to ensure that products meet international standards while respecting the cultural and biological heritage from which they originate.

Dr Rodney Managa concluded the session by outlining the contribution of the Council for Scientific and Industrial Research (CSIR) to bio prospecting, particularly through its Indigenous Knowledge Systems (IKS) Research Programme. Central to the CSIR's approach, the programme promotes, protects, and develops IKS by working directly with communities, small-scale producers and traditional healers. The programme plays a critical role in recognising and valuing traditional knowledge alongside scientific research. As a key implementation agent of South Africa's national IKS Policy (2004), the programme ensures traditional knowledge is both preserved and integrated into national development and scientific advancement.

View and download the Innovation Cluster presentations here.

Advancing South Africa's biodiversity innovation: From bioprospecting to advanced product development

Harnessing South African biodiversity for cosmeceutical development

Biodiversity Monitoring Tool

Theme: A strategic intelligence platform for South Africa's biotrade sector.

The **Biodiversity Monitoring Tool (BioMoT)**, hosted on the **Tierra Viva AI Platform**, is an AI-driven system designed to support both public and private sector actors in South Africa's biotrade economy. Funded through BioInnovation Africa (BIA) and developed by **Paul Oldham and his team at One World Analytics** in partnership with the DFFE, BioMoT is designed to monitor and track trends in research, patenting and products associated with South African biodiversity. It aims to make scientific knowledge visible and actionable.

In a video, the One World Analytics team demonstrated how BioMoT integrates data from sources such as **GBIF** (taxonomic and species occurrence), **OpenAlex** (scientific publications), patent databases (including DSI on proteins/AlphaFold resources), and global product listings. These data streams are processed through a machine learning model, which extracts species names, geographic metadata, and contextual details. Outputs include interactive **dashboards**, automated biodiversity intelligence reports focused on individual **species**, and summarised **product intelligence**, all downloadable (e.g. via CSV or Tableau) for further analysis.

The **automated species reports** consist of multiple modules:

1. **Scientific publications**: Trends in mentions, major authors, institutional networks.
2. **Patents**: Overviews of applications and grants, applicant networks, geographic aspects, deep dives.
3. **Geospatial mapping**: Visualisation of patent activity by region.
4. **Product insights**: AI summaries of commercial listings across markets.

A standout feature is the **Deep Search tool**, a conversational, AI query interface that allows users to ask specific questions (for example, about species, technology areas, or markets). Its iterative question-and-answer approach is linked to source references and includes factchecking, helping users uncover deeper, actionable insights. Compared to generic models like ChatGPT, BioMoT's Deep Search has reportedly produced more targeted strategic outcomes – such as identifying partnerships – for private sector users.

From the **private sector perspective, Cyril Lombard** emphasised how BioMoT can track and learn from scientific literature on key species like Marula, helping businesses stay informed of new findings and developments, detect possible risks, and use these insights to remain competitive. For example, a jelly producer using African plant extracts can use BioMoT to access the latest research and potentially improve production methods. BioMoT is also included in the one- to three-year development plan for the Marula Fruit Products Association. It has the capacity to filter out "noise" in patent landscapes (e.g. generic formulation patents) and focus on species-specific patents – the small subset that is truly relevant. In one exercise, 294 patent records were retrieved for Marula, but only 10 to 15 of these were deemed highly relevant.

Neil Crouch of SANBI explained that SANBI is hosting BioMoT's pilot, assessing its value to the public sector and coordinating collaboration among government entities like DFFE's Bioprospecting, Access and Benefit Sharing (BABS) Unit and the National Research Foundation (NRF). He noted that different agencies have distinct needs for biodiversity intelligence – so BioMoT must remain adaptable. While pricing models are still under development, the vision is for equity-based access. Over time, BioMoT could become integrated into government systems, informing policies, monitoring resource use, and supporting sustainable development strategies.

Biodiversity Monitoring Tool

Though still evolving, BioMoT promises to be a critical bridge between science, policy, and industry – helping unlock South Africa's biodiversity potential through data-driven insight, collaboration, and strategic foresight. Industry representatives, researchers, and institutions interested in contributing to or using the platform are invited to engage with the BioMoT team.

View and download the Biodiversity Monitoring Tool presentations here.

BioInnovation Monitoring Tool for South Africa

BioMoT: A species and market intelligence tool for public and private use supporting the SA biotrade sector

Regional biotrade collaboration (Marula)

Theme: Growing southern Africa's Marula industry through regional collaboration, sector development planning, geographical indication advancements, and market access with EU Novel Food application.

The session started with a presentation by **Dr Charlene Musiza** from the EU–SADC–EPA Support Programme in collaboration with the Swiss Partnership – South Africa Programme. Dr Musiza presented the findings of the study on the legal and strategic considerations for protecting Marula through a transboundary Geographical Indication (GI), highlighting its cultural and economic importance in southern Africa. GI protection would help ensure fair benefit sharing, preserve traditional knowledge, and enhance Marula's global market reputation. A GI indicates that a product originates from a specific region and reflects its unique qualities linked to that origin. While GI laws vary across countries – South Africa uses a hybrid system, Botswana and Zimbabwe have dedicated GI laws, and Namibia relies on trademark law – each provides a foundation for national and joint GI registration. Dr Musiza discussed the need for an umbrella body to develop a unified product specification and coordinate registration across borders. This approach would simplify EU registration and promote regional cooperation.

Benefits of joint registration include stronger branding and equitable value distribution. However, challenges such as legal fragmentation, coordination, funding, and inclusive representation needed to be addressed. Key recommendations include institutional formalisation, regional harmonisation of standards, legal registration in all countries, and open consultation with all producers, starting with a baseline on oil purity. GI protection offers a strategic opportunity to elevate Marula as a regional asset while ensuring sustainability, fairness, and community involvement.

ABioSA consultant **Cyril Lombard** provided a progress report on the EU Novel Food Regulation project. Given the EU's strict regulatory standards – tougher than those of the USA, China, Brazil or India, successfully navigating the EU process will significantly ease access to other international markets, thereby enabling a global market access strategy for Marula fruit. Current studies on substances of concern, as well as modern methods for assessing safety and toxicity – such as *in silico* and Quantitative Structure–Activity Relationship techniques – open up broader possibilities than the regulatory route for "traditional" foods from a third country, which remains quite restrictive. Progress included consultation with some 30 companies, organisations and researchers who have expressed interest in the Food Business Operator (FBO). An FBO is a requirement for novel food notification or application in the EU. This can take the form of a trade association, and in this regard, progress was reported with a potential constitution, membership categories and benefits. The approach of a Master Dossier was described, including how each individual business would access the dossier and adapt it for their own, confidential application to access the market. A draft one- to three-year sector development plan is also being finalised in consultation with stakeholders. It will guide coordination and cooperation between sector stakeholders and form the basis of a proposal for funding to execute the plan for the growth of the sector.

Regional biotrade collaboration (Marula)

Amanda Nyingwa from GIZ provided an overview of the ongoing regional collaboration under the ABioSA II project.

Amanda Nyingwa from GIZ provided an overview of the ongoing regional collaboration under the **ABioSA II** project, which supports sector development at the meso level. The Marula Sector Development Plan (SDP), originally developed in 2021, serves as a roadmap for coordination across southern Africa. It outlines strategic objectives, actions, responsible institutions, and a monitoring framework. She presented key progress or "highlights", including a chamber for the Marula sector, an oil quality standard, a study on novel food registration, and outlined "low lights" or opportunities for improvement. Next steps include finalising the review of the Marula Sector Development Plan as part of the ABioSA *Quo Vadis* process, with the sector prioritising key areas for implementation. These include formalising a Marula chamber structure, conducting resource assessments, and adapting quality standards for other countries. They also involve preparing for emerging opportunities that will support implementation of the SDP, including those expected to become available under ABioSA Phase III. As part of supporting sector growth in indigenous value chains, a call for proposals will be issued early next year and evaluated based on: (1) Financial and governance structure, (2) Representation (sector-wide relevance), (3) Legal suitability (commercial eligibility). The target applicants are private sector associations, cooperatives, collaborative models (e.g. hubs, outgrowers, aggregators), and public/private business support organisations such as universities and laboratories.

During the **fireplace discussions**, participants explored the value and respective contributions required to make a regional Geographical Indication (GI) for Marula successful. Key themes included the benefits of regional collaboration, the challenges of cross-border coordination, and the importance of including TK Holders through proper access and benefit sharing (ABS) mechanisms. Several contributors raised practical concerns. These included the feasibility of cross-border commitment; exploring existing options such as SAEOPA's seal system as an interim tool; the cost-benefit of pursuing GI, particularly in relation to product quality assurance and market premiums; and the need to expand the focus beyond the four targeted countries to include others – such as Mozambique and Eswatini – to promote unity rather than competition. **Dr Charlene Musiza** highlighted the legal steps, recommending starting with Marula oil as the most viable entry point and establishing a technical working group to drive specification development. The group agreed that a GI could promote collective identity and value but also flagged the complexity of protecting the Marula name, ensuring equitable benefit sharing, and aligning legal frameworks across multiple countries.

View and download regional biotrade collaboration presentations here.

Towards regional protection of Marula

EU Novel Food application and food business operator update

Sector development plan update and regional collaboration

Policy and Legislation Cluster

Theme: Indigenous biological resource Traditional Knowledge Holder, access provider and industry dialogue.

The Policy and Legislation Cluster session at the African Biotrade Festival focused on two core objectives: 1) exploring key polarities and challenges experienced by different stakeholder groups involved in the biotrade sector, for example industry role players, MSMEs, TK Holders, etc. and 2) collectively envisioning what an inclusive and equitable biotrade sector could look like.

Marthane Swart of Kruger Swart Associates facilitated a panel discussion on how cooperative governance can reduce regulatory barriers and help SMMEs get their products to local and international markets.

The session opened with a panel discussion featuring TK Holders and industry representatives, facilitated by **Marthane Swart** from Kruger Swart & Associates (KSA). The discussion reflected on the current policy and legislative environment, with a particular focus on how cooperative governance between relevant government departments – including the DFFE, the Department of Trade, Industry and Competition (the dtic), and the Department of Science and Innovation (DSI) – could help streamline processes and reduce regulatory barriers for SMMEs, making it easier for products to reach local and international markets. A major theme was the importance of improving ABS agreements to foster stronger and more equitable relationships between users, providers, and TK Holders.

The panel also noted that a lack of trust between industry, communities and TK Holders, and regulators has often hampered collaboration around indigenous biological resources. However, the recent Houwhoek workshop was cited as a transformative experience, helping to rebuild trust through open conversation rather than formal negotiation. During the panel discussion, **Ulrich Feiter** from Parceval, **Stanley Pietersen** from the National Khoi and San Council, and **Leana Snyders** from the South African San Council shared reflections from the Houwhoek workshop. Stanley described how industry and TK Holders, once considered adversaries, became allies after sharing personal stories, visiting the Parceval factory, and openly discussing their fears and aspirations. This humanisation process shifted the dynamic from adversarial negotiation to empathetic dialogue, leading to a new level of trust and partnership. As Ulrich noted, this was a rare shift "from enemies to friends in just a few days." Leana added that after years of fighting exploitation, TK Holders are now asking, "What do we want?"– a powerful reframing that opened doors to co-creation and mutual understanding.

The Policy and Legislation Cluster session also included a participatory workshop titled ***'Biotrade re-imagined: From problems to polarities'***, facilitated by **Dr Rhoda Malgas** from Nelson Mandela University (NMU). The workshop encouraged participants to reframe sector challenges not as problems to be solved, but as polarities to be managed. Polarities such as scale (large vs. small), speed (fast vs. slow), regulation vs. flexibility, and global competitiveness vs. fair community inclusion were explored through group exercises. Participants mapped the upsides and downsides of each polarity, identified warning signs of imbalance, and proposed actionable steps to move towards sustainable equilibrium.

Policy and Legislation Cluster

During the Biotrade reimagined workshop, participants reframed biotrade challenges not as problems to be solved but as polarities to be managed.

The groups identified the following polarities:

Group 1 focused on balancing scale and speed, highlighting the need for platforms for dialogue, and suggested creating an IP holding company for TK Holders.

Group 2 discussed the trade-off between regulation and a free-for-all market, recommending capacity building and involving TK representative bodies in certification.

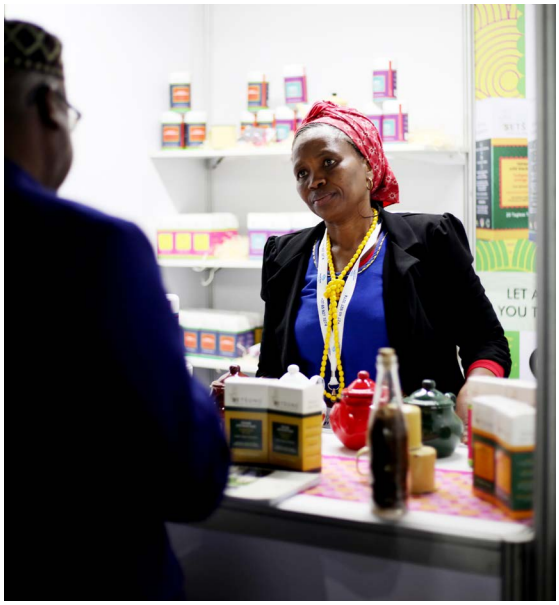
Group 3 explored the tension between global market pressures and community inclusion, proposing community consultations, skills development, and IP training.

Group 4 highlighted issues like illegal harvesting and bureaucracy, suggesting multi-stakeholder policy development informed by real-world constraints.

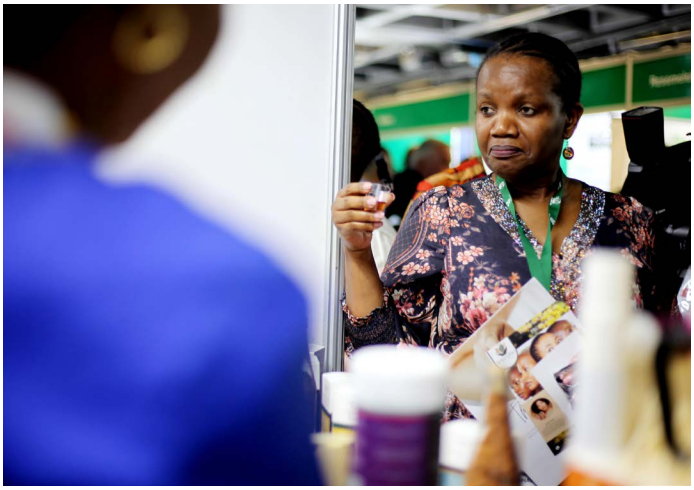
Group 5 examined the risks of over-regulation versus unregulated markets, stressing the need for communication, traceability research, and stronger local markets.

To close the session, participants were asked to map traditional biotrade supply chains and identify where TK Holders could enter and participate in these value chains. This was accompanied by a reflection on how individuals can also play a transformative role in the value chain, and what actions they could take immediately – "by Monday morning" – to help advance an inclusive biotrade sector. Takeaways included the importance of exchanging ideas locally and internationally, being open to diverse perspectives, and learning from different approaches to ABS negotiation. A common sentiment was that through mutual understanding, there is real potential for a biotrade sector that is not only commercially viable but also ethical, sustainable, and inclusive of all voices – particularly those of the TK Holders who are foundational to the sector's success.

African Biotrade Festival exhibition



African Biotrade Festival exhibition



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