

Report on the first regional workshop on a Marula sector development plan

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environmental affairs

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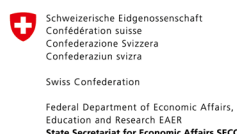
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Adrie El Mohamadi
 Senior Technical Advisor
 The ABS Capacity Development Initiative
 (ABS Compliant Biotrade in Southern Africa)
 Center for Cooperation with the Private Sector (CCPS)

**Deutsche Gesellschaft für
 Internationale Zusammenarbeit (GIZ) GmbH**
 +27 12 423 7955 | +27 82 902 4083
 adrie.elmohamadi@giz.de
 www.giz.de & www.abs-initiative.info

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Introduction

More than 50 delegates from the southern African biotrade sector gathered in Windhoek, Namibia, on 4 & 5 November 2019 to consult on a future potential sector development plan for Marula.

Participants from Botswana, Namibia, South Africa and Zimbabwe included representatives of harvesters and primary producers, the development sector, government and its implementing agencies, and people involved in manufacture or trade in Marula products.

The workshop was arranged by the SECO-funded ABS Compliant Biotrade in South(ern) Africa (ABioSA) project with support from the GIZ funded Biodiversity Management and Climate Change project, in collaboration with the Namibian Ministry of Environment and Tourism.

This is a report of the workshop and its outcomes.



A future regional sector development plan should be aligned with national and local priorities and initiatives, and requires coordination and consultation with stakeholders

Summary of key points

- Marula is a rich natural transboundary resource in southern Africa with ecological, economic and social significance. It is widely distributed in a broad and varied landscape, interacting with many different cultures, perceptions and belief systems.
- The Marula sector has the potential to stimulate rural development, job creation and new export markets – with spin-off benefits in technology, innovation, development of small businesses and skills development
- Successful economic sectors need a coordinated and collaborative approach. The Marula sector can learn from other sectors' approach to engagement with government, collaborative planning, shared objectives, standards and market development.
- Development of the Marula sector must take account of ABS regulations, conservation and sustainable use, and indigenous knowledge. The sector will require evidence-based ecological, economic and social baseline data and monitoring.
- A future regional sector development plan should be aligned with national and local priorities and initiatives, and requires coordination and consultation with stakeholders
- The regional plan should prioritise a few elements where it can have the most impact. Reliable supply, quality standards and market access were identified by delegates as priority elements.
- The plan should contribute towards social, environmental and financial sustainability
- Commercialisation of the Marula sector will include domestication and cultivation to improve genetic strains, quality and reliability. This can work alongside wild harvesting.
- The Marula sector plan should remain under management of a representative body in southern Africa
- Short term market access initiatives may be assisted by development of a representative platform or proto-association
- Conservation and sustainable use need capacity development, training and funding to protect the resource for future generations
- A sustainable Marula sector requires resource assessments and monitoring that include volume of supply as well as social, cultural and environmental conditions
- Sustainability needs to take account of climate change
- The sector needs to develop a scientific basis for claimed Marula benefits which can be articulated at industry, consumer and policy level

The Marula sector has the potential to stimulate rural development, job creation and new export markets – with spin-off benefits in technology, innovation, development of small businesses and skills development

Short term market access initiatives may be assisted by development of a representative platform or proto-association



Recommendations

The following recommendations are based on discussion and inputs from delegates at the workshop:

- Distribute workshop report and engage delegates and other government, business, development and community stakeholders in the biotrade and Marula sectors
 - *Invite input, comments and questions – by end-January 2020*
- Engage with companies, industry groups and government agencies about potential for a future regional platform or association tasked with developing market access for Marula as a novel food and cosmetic ingredient
- Assess current initiatives on development of biotrade/Marula standards and specifications
 - *Identify opportunities to advance standards initiatives on a regional level*
- Implement ABioSA/SANBI resource assessment workshop in February 2020 and report outcomes
- Incorporate lessons learned and outcomes from workshop on terms of reference for expert consultants on a future sector development plan for Marula

A sustainable Marula sector requires resource assessments and monitoring that include volume of supply as well as social, cultural and environmental conditions

Welcome address

Teofilus Nghitila

Executive Director, Ministry of Environment and Tourism (MET), Namibia

Marula has great ecological, economic and social significance in our region. In the north of Namibia, use of the fruit has contributed to employment creation, especially among women, and generated additional income for rural households. We regularly host a Marula festival which has been recognised by UNESCO as cultural heritage.

Many parts of southern Africa share the Marula resource and endeavour to increase and diversify its use, enter new markets and invest in product development.

I welcome the opportunity to explore options for what a possible sectoral and regional approach for Marula could look like, while considering local, national and regional interests.

We share both the opportunities and the challenges. This includes developing value chains and establishing regulatory frameworks which stimulate economic growth

but which also protect the resource and communities who ensure its sustainability, especially in a time of drought and a changing climate.

Producers and users increasingly have to deal with volatile market dynamics, increasing costs associated with market access and regulatory compliance, and needs for technological innovation.

I encourage us as representatives of the Marula range states to explore opportunities to face the tasks ahead together, benefit from each other's experiences and knowledge, to ensure a healthy and competitive business environment and the sustainability of the Marula resource.

I am looking forward to hearing about the outcomes of this event, and how best to utilise them in our daily work for the benefit of people, nature and our common sustainable development efforts.



Workshop background & aims

Suhel Al-Janabi

GIZ ABS Capacity Development Initiative

This is the first regional Marula workshop, building on the success of a July 2019 South African workshop organised by the ABioSA project.

It is part of a wider long-term effort to help African countries develop the sustainable utilisation of natural resources while supporting development of legal and institutional frameworks under the Nagoya Protocol.

Summary of ABioSA project

ABioSA is an ABS-compliant biotrade programme for South and southern Africa. It is a collaboration with regional governments and focuses on small to medium enterprises. The project provides technical assistance, financial support and policy dialogues.

One of its planned outputs is development of sector development plans for selected species.

Summary of BioInnovation project

The main objective of the new three-year BioInnovation project is European-African cooperation for biodiversity-based innovations and products based on fair and equitable benefit-sharing.

The project's advisory services are primarily aimed at public and private sector partners in South Africa, as well as at users of biodiversity-based ingredients in Germany and Europe.

The project has four planned outputs:

- Improving efficiency of national ABS frameworks
- Supporting conservation and sustainable use
- Biodiversity-based supply chains for sustainable development
- Reflecting biodiversity-based value chains in development cooperation

Sector plan

A future sector development plan must accommodate the needs and ambitions of all parts of the value chain, and should ensure social, environmental and financial sustainability.

Development of a Marula sector development plan will guide future plans for other species.

The concept of a sector master plan

Adrie El Mohamadi

GIZ ABioSA project manager

Successful economic sectors arise from a coordinated approach. We can learn from other well-developed sectors like the SA automotive industry, including its positive engagement with government, collaborative planning and identification of shared objectives.

The automotive sector plan focused on increased local content, technology development, a doubling of employment, improved competitiveness, industry transformation, regional value chains and investment readiness. The trend in SA is to promote a standard sector master plan/strategy methodology across priority industries.

Aim of a sector plan

The aim of a sector plan is to identify key strategic interventions based on verifiable national/regional baselines, combined with an analysis of global economic

trends and technology good practice. It should also establish a platform for future high-level engagements.

Baseline analyses should include current indicators such as investment, technology, employment, production, sales and exports. The global analysis should benchmark Marula against comparative species and products being sustainably exploited internationally, and then look at future growth and development scenarios.

The plan should consist of a vision, objectives, elements of implementation and cross-cutting issues. It should be collaboratively developed and then communicated and agreed across the spectrum of Marula stakeholders. The plan will need to be institutionalised through a jointly-agreed framework to lead implementation, monitor progress against objectives, and ensure accountability.

Setting the scene

Cyril Lombard

ABioSA consultant

An important part of developing a sector plan is getting views from all stakeholders and identifying key issues and focus areas.

One of the key issues for biotrade is the link between commercialisation, conservation, sustainability and access and benefit-sharing. We also need to be clear about the size and accessibility of the resource – this is a key factor for investors and industry partners.

In the SA workshop it was clear that stakeholders wanted to move quickly towards a coherent sector development plan. They agreed that commercialisation of the sector would inevitably include domestication and cultivation to improve and control genetic cultivars, quality and reliability. This approach can work alongside wild harvesting.

Monitoring and evaluation off a reliable baseline are recognised as important, but data gathering can be difficult due to absence of information or confidentiality in commercial operations.

Standards, sustainability, baselines and targets were a common theme through the SA workshop. Delegates agreed that the sector should remain under the control of people and organisations in southern Africa and where the natural resource exists.

Regulators and private sector are concerned about the lack of uniformity in rules across the region, which creates gaps for people to exploit.

The ABioSA project is already working on market access issues, including EU food and cosmetic regulations that SMEs need to comply with, registration of new products and ingredients, safety and toxicity, and product labelling. These regulations don't only affect exports. SA is transitioning the cosmetics sector from a self-managing to a regulated sector, and companies selling into SA also have to comply with EU-like regulations and standards. This may also apply in future to neighbouring countries.

An analysis conducted by a regulatory agency on EU cosmetic regulatory requirements found very high levels of non-compliance by SMEs. Problems included the wrong names for plant species, inaccurate and wrong data and reports which had been copied. This was not always intentional but sometimes the result of ignorance of the requirements. This is something which can be

resolved through a sector approach rather than trying to tackle it one company or country at a time.

Food ingredients

Regulation of novel foods in the EU have changed favourably with the inclusion of a category for 'traditional foods from third countries'. This may make it easier to register ingredients with a history of safe use. Marula has a very strong history of safe use, but the question arises about whether it has been documented and can be demonstrated.

A review of more than 360 scientific publications, with 60 focused on Marula's use as food, confirms this history. However, Marula fruit is not consumed in large quantities.

Consumption of some products could reach a level which requires evaluation and risk assessments, a complex but achievable task.

Analysis of Marula's anti-nutrients will need clear communication to the regulator about how consumers may be affected.

The compounds in Marula change significantly as the fruit ripens. They differ between fruit pulp and the skin, and some of these compounds, if ingested in large amounts, may be toxic. This will need checking against toxicity databases to determine volumes for safe use.

The sector needs a strategy to enter the EU market, and this requires engagement with producer groups, SMEs and European industry. Approved access by reducing the cost and complexity through a joint registration process to the EU market will also make it easier to access the US and Chinese markets.

In SA, government support for a sector requires a credible plan with baselines and targets, how it will create jobs and meet the aims of the National Development Plan and the Biodiversity Economy Strategy.

The plan for Marula can differ across countries and regions, but does need credible baselines and targets and implementable plans.

Nowhere in the world has a sector been efficiently developed and reached scale without a plan. Successful industries include macadamia, olive and almond in SA or abroad – they all had plans.



Resource assessments and monitoring

Neil Crouch

SANBI

Article 11 of the Nagoya Protocol emphasises the need, where a natural-occurring genetic resource occurs in more than one country, for these Parties to co-operate to implement the Protocol. The management of a resource to be accessed can accordingly be trans-boundary.

Sustainable development of the Marula sector requires a regional monitoring programme. Monitoring considerations go beyond the ecological resource to include indigenous knowledge elements.

Benefit-sharing through ABS, as exemplified in the Nagoya Protocol, includes the direct promotion and funding of the conservation and sustainable use of biodiversity. Some ABS agreements (including from South Africa) have not sufficiently emphasised conservation.

Marula is very widely distributed in southern Africa where plants occur in a diverse landscape, and are interacted with by a range of cultural groups.

Different national policies, regulations and perspectives need to be considered when developing a regional resource assessment and monitoring system for Marula. Among some stakeholders there is resistance to the notion of conservation, which can be perceived as standing in the way of socio-economic development.

Availability of quantitative and qualitative resource information is very uneven across the region. For some species there is no information at all and it is difficult to learn what is happening on the ground. This emphasises the need for extensive cooperation and coordination, and a commitment to jointly agreed methodologies for assessment, monitoring and evaluation.

South Africa and other countries in the region are enduring economic challenges that drive unsustainable development, reflected in land-use changes that result in rapid loss of habitat for species in biotrade.

The impact of harvesting activities on the environment needs to be considered.

Not all countries have the same ecological scientific capacity, with some more focused on CITES species that are of international trade concern.

SANBI, through the Scientific Authority of SA, has motivated for an annotation to the CITES listing of certain products from *Aloe ferox*, which has improved the ability of local industry to trade.

South Africa has Biodiversity Management Plans for species that when more broadly applied could prove useful in other countries in the region.

Resources (financial, human) are required to move from biodiversity management planning to execution/implementation.

Resource assessments need to be periodically repeated as part of M&E processes.

The Rooibos industry example illustrates how ecosystem biodiversity can be negatively impacted through cultivation of an indigenous plant. "We need to ensure we don't cause more problems than we think we're solving by growing an indigenous species."


Without scientifically-sound resource assessments and solid M&E systems to inform the management of resources, businesses cannot be promoted as 'sustainable'. Ecological sustainability in biotrade value chains needs to be viewed as an essential aspect of sustainable development.

Principles of uniformity, standards and reliability are as important on the raw material supply side of the biotrade value chain as they are at the point of product retail.

Resource assessments need to account not just for quantity but also quality. Monitoring needs to consider environmental as well as social impacts. Sound decisions on offtake and sustainability require good baseline information, and ongoing M&E.

Principles of uniformity, standards and reliability are as important on the raw material supply side of the biotrade value chain as they are at the point of product retail.

Different national policies, regulations and perspectives need to be considered when developing a regional resource assessment and monitoring system for Marula



Resource assessment workshop February 2020

The ABioSA project and the SA National Biodiversity Institute (SANBI) are planning a two-day workshop in February 2020 to establish credible resource assessment methodologies and monitoring programmes for key biotrade species in southern Africa.

The workshop aims to devise a programme that formally monitors resource levels and health, and the sustainability of wild-harvesting of the most important bio-traded plant subjects in southern Africa.

It will look at how to standardise local, national or regional-level approaches to resource assessments; and the adoption of precise and repeatable methodologies that are scientifically sound, technologically appropriate, and which account for financial realities.

Countries are encouraged to nominate participants who can contribute towards the establishment of these programmes on a technical level.

The workshop will be held in Johannesburg or Pretoria. For further information or to register your interest please email adrie.elmohamadi@giz.de





Delegate comments

Climate change interventions need to be both reactive and strategic – eg switching cultivation to sites less affected by climate change

A large resource doesn't necessarily mean you have the means to harvest and process it

The Marula tree survives for 150 years but animals eating the seedlings threaten the growth/recruitment of future trees. A properly designed resource assessment would identify this threat.

When considering commercialisation of natural products and resource sustainability, we have to understand socio-economic difficulties that face rural communities

There was a discussion about the potential for SA organisations like SANBI and CSIR to support other countries

Sustainability needs to take account of climate change

Cultivation should complement and not replace wild harvesting.

Resource assessments need to be taken seriously – the last thing we need is to be blamed for over-harvesting.

One of the reasons we should promote perennial crops like Marula is because it's drought resistant. Planting more crops like that and creating markets for them is one of the key climate change strategies that's available to South Africa.

How prepared are we for floods and droughts? As much as the Marula trees are drought resistant, floods also impact production of the kernels. We also need to investigate the impact of droughts and floods on the quality of oils.

You need to look at the socio-cultural aspect. Places where Marula has worked well is where people have a strong cultural connection to the resource, and production of the resource is connected to cultural practices.

You can go out and count the trees and work out the average yield but that doesn't tell you anything about whether the people in that area will prioritise harvesting that fruit. Marula is ripe during the busy farming season. In Botswana people aren't desperate enough to harvest it, and in Malawi, mangoes are abundant at the same time so why would you need Marula?





Views from the region

Delegates engaged in a group discussion about the status of the Marula sector in different southern African countries.

General

- Regional cooperation is enshrined in the Nagoya Protocol
 - *Article 11: 'the parties to the protocol shall endeavour to collaborate regarding resources that occur across territories'.*
- Regional stakeholders have a material interest in collaborating – otherwise they risk being divided by the market and forced into a race to the bottom
- Delegates raised the victory for the Khoisan in the Rooibos sector as a positive development and example for the Marula sector

Regulation and compliance

- Delegates were told that EU-compliance for Marula oil in SA would affect regional companies trading in SA. A representative of the cosmetics desk at SA's dti said that SA set its standards to EU-level because that aided acceptance in other markets. Concerns were raised about intra-African barriers to trade.
- ABioSA said it aims to see how it can reduce the barrier to entry to the EU markets by joint registration and product dossiers.

Investment readiness

- SA's Industrial Development Corporation said investors need reliable quality based on cultivation and genetic selection, not wild harvesting alone
- 'You have to cooperate to make economies of scale, otherwise the funders will not be interested.'



Botswana

- Marula processing for the food or cosmetic sector is undeveloped in Botswana. People are working at a community not commercial level.
- Government is not playing a pivotal role in developing communities working with Marula – 'but we need to treat Marula the same way we treat diamonds – we need to look at it as an abundant resource'
- We are here to learn about best practice – the Botswana government has funding for Marula but not the necessary skills
- Botswana has an interim process to help communities and a process to negotiate on their behalf following demand from researchers

- Only a few people are exploiting the resource – people don't recognise the value of Marula. Just two facilities are processing, exporting or adding value to Marula – as jam, oil and snacks.
- DLG Naturals selected Botswana for its Marula business because it was an undeveloped sector with low levels of awareness
- The resource is under-utilised – only about 2,000 tonnes are used of the estimated two million tonnes available
- Regeneration of Marula trees is a challenge because they get eaten by goats
- Agroprocessing is focused on beef in Botswana and there is a lack of manufacturing infrastructure and experience
- International food processors won't enter the market unless 40% of the supply comes from plantations



Namibia

- Taneta Investment presses and filters Marula oil for local markets. It aims to export and is working on certification for access to the EU and US. It recognises the need for collaboration with government and regional coordination, but this needs to work for both small and big producers. Funding was identified as a challenge.
- Eden Manufacturers formulates skincare products and recently started working with Marula for its anti-aging properties. They said a consistent supply of packaging is a challenge for skincare products in Namibia.
- Kuti Oil is a small cold-pressed oil business with local sales and some bulk exports
- Eudafano is a women's cooperative which for more than 20 years has harvested Marula to extract oil for sale to the cosmetics industry. Local sales are limited and don't cover costs so most oil is exported to international customers. It recognises the need to provide a reliable and sustainable supply of oil of a consistent quality. Sending samples to customers is a major challenge for Namibia. There are some unknown competitors in Eudafano's value chain.
- A representative of Divine Oils in northern Namibia described how he grew up around Marula as a mainstay of his mother's business. He described women selling kernels to traders who didn't deliver payment, an experience which motivated his engagement with the sector.
- ABS was described as a barrier for the Namibian sector 'because we don't know how to deal with it'



South Africa

- SANBIO is a network working in health, food and nutrition in the SADC region – with emphasis on ABS and indigenous knowledge systems
- The Council for Scientific and Industrial Research has established a biomanufacturing centre to create jobs by supporting SMMEs on product and process development



Zimbabwe

- Zimbabwe established regulations in 2009 to ensure sustainable use and conservation of Zimbabwe's genetic resources – but has to date not concluded any ABS agreements
- Zimbabwe does not distinguish between biotrade and bioprospecting or provide for transboundary agreements
- Marula is found all over Zimbabwe and is deep in the cultural tradition. It is used to produce different varieties of beer and to treat ailments including diarrhoea and eyesight problems.
- Zimbabwe is one of the region's biggest Marula oil producers, mostly for export



Priority elements for a regional sector development plan

The workshop looked at potential elements for a future Marula sector development plan – based on presentations and delegates' input:

1. Access to finance
2. SME support and development
3. Market access
4. Compliance, policy and regulations
5. Indigenous and traditional knowledge
6. Access and benefit sharing
7. Coordination, consultancy and engagement
8. Cost and investment
9. Economic transformation
10. Technology, innovation, science and R&D
11. Skills and capacity building
12. Quality standards and reliable supply
13. Sales and marketing
14. Beneficiation & local value addition
15. Conservation and sustainable use

Delegates were asked to vote on the elements which would most likely benefit from a regional approach and collaboration across the Marula sector. The following elements were then selected for discussion in groups.

1. Quality standards and reliable supply
2. Market access
3. Coordination, communication and consultation
4. Conservation and sustainable use
5. Local value-add, beneficiation and product development
6. Compliance, enabling policy and regulations

Delegates were asked to identify which parts of each element required a regional approach, and to consider how they might also be supported at a national level.

Feedback from group discussions

1. Quality standards and reliable supply

- There is no current standard for Marula oil - the market has complained about inconsistency in product supplied
- Quality standards is a foundation without which no industry can survive – from propagation and harvesting to transport and production
- Organisations associated with standards include
 - *Botswana Bureau of Standards*
 - *Council for Scientific and Industrial Research (RSA)*
 - *Namibian Standards Institute*
 - *Zimbabwe Bureau of Standards*
 - *Agriculture ministries*
 - *The Conformity Assessment Body*
 - *SA Bureau of Standards*
 - *Perishable Produce Export Certification Agency (RSA)*
 - *SA Essential Oils Producers Association*
- The profile of different Marula products needs to be clarified – for oil and other products
- Standards need to be fit for purpose – developed by producers and aligned with what the market wants

- Standards need to be accessible to newcomers to the industry – and should create trust across all layers of the market
- Standards bureaus can support SME compliance with standards
- Standards should be freely available online
- Every point in the value chain will require different standards

2. Market access

- Institutions are already helping small businesses to get market access through preparation of business cases and dossiers, lobbying and advocacy, business-to-business meetings and support with meeting standards
- Companies need to be export-ready to ensure international competitiveness
- R&D is required to enable production of high-quality Marula oil
- Ensuring quality, or complying with standards, is likely to increase producer costs – will this cost be absorbed by the market?
- Without standards it is not possible to be in the market – testing is high up on the list of what the market demands

- Quality should be seen not as a cost but an investment
- Different products require different market strategies
- Economic assessments and business cases are the starting point for market access – preferably through engagement with industry.
- Standards and compliance are required for all parts of a product – from individual ingredients to packaging

3. Local value-add, beneficiation and product development

- This group discussed the role of governments in value-addition – and the need for standards to ensure consistent quality
- Quality control, testing and verification was identified as a bottleneck
- Setting of standards could be a regional activity, but implementation is needed at national level
- There is a need for small business financing to support standards – and more political awareness about creation of an enabling environment
- The sector needs to work with universities to develop a scientific basis for claimed Marula benefits which can be articulated at industry, consumer and policy level. This is a priority for a sector development plan.
- Research is too expensive for individual companies – it needs to be done for the shared interest of the wider industry
- R&D can aid the standardisation of quality products
- The CSIR has the expertise and facilities to do research with industrial partners and cooperatives
- The properties of Marula oil need to be studied to make it attractive to the food sector – it's too expensive to be a cooking oil but is a good condiment
- Economies of scale need to be calculated
- Quality requires commercial quality assurance providers, government support for creation of an enabling environment, and an SME financing scheme
- Standards need to be developed and harmonised
- Priority issues to be tackled are quality, standards and innovation

4. Compliance, enabling policies and regulations

- Harmonisation of trade policies on natural plant ingredients is needed to facilitate intra-regional trading – at a SADC level or through the African Union's new continental free trade agreement
- Benefit-sharing standards need to be agreed in the region – with an empowerment component leading to ownership by primary producers
- A dialogue is needed between the regional ABS authority, holders of traditional knowledge, producers etc – to create regional standards for implementation nationally
- This requires market intelligence - otherwise ABS agreements risk pricing the oil out of the market
- Quality standards are a prerequisite for commercial viability
- The market needs to be made aware of compliance issues – this can be a role for ABioSA
- In some cases products use a small amount of Marula but promote it as a key ingredient – this misleads consumers and is borderline fraudulent practice requiring intervention by trade authorities
- ABS can help to fund R&D
- Customs duties are complicated and murky – and even if agreements are made regionally the compliance is required at company level
- Regulation and compliance need to be simplified and communicated across the value chain
- Regional agreement on benefit-sharing standards, with ABS permits linked to quality standards, would make a major difference to the sector
- Market access is not possible without an ABS permit
- Harmonisation of standards at government level is a good objective but may be challenging – it could start with quality standards defined by an industry association
- Standards are required for ABS and trading activity. This is a role for ABS authorities, and needs market intelligence. ABS standards should link to minimum quality standards.
- Trade policies should be harmonised at a national and regional level
- Taxes or levies on regional trade could fund conservation. This requires engagement with the SA Customs Union and national trade and industry departments.
- Awareness-raising activity will support and enable compliance – this can be done by ABS authorities in cooperation with trading standards and consumer protection bodies. It is a national and regional activity.

5. Conservation and sustainable use

- Conservation and sustainable use are key elements in the Marula value chain but need capacity development, training and funding to protect the resource for future generations
- Capacity development should take account of indigenous knowledge and traditional conservation methods
- Conservation initiatives should take account of existing scientific information, historical data and traditional knowledge
- Baseline research is imperative, followed by ongoing monitoring and evaluation
- Conservation requires government as well as local, regional and international academic and research institutions
- Conservation needs to be funded
- The private sector should embrace conservation and biodiversity principles in their operations
- Principles are required for sustainable Marula harvesting
- Some research has never been published – so we aren't aware of what's been done before
- Conservation is something that needs attention at national (govt ministries), regional (SADC) and international level
- Traditional and indigenous conservation practices need to be accounted for
- Conservation is included in the Nagoya Protocol's aim to promote sustainable use through benefit sharing
- Resource assessments can be done nationally, but should follow an agreed regional methodology
- Marula is already being cultivated internationally, but the continuous evolution and improved cultivars are in southern Africa, with some 'super trees' providing the basis for boosted production
- Farmers could double their production by propagation from branches of high-yield specimens

- Cultivation can anchor a future industry but the biodiversity around wild Marula needs preservation – marketing of Marula products can emphasise biodiversity and habitat preservation
- Registration of genetic material is required to protect regional cultivars

6. Stakeholder coordination and consultation

- Sectors were identified for targeted coordination, communication and consultation:
 - *Communities, private sector, trade associations, regulators, ABS authorities*
- Knowledge exchange and sector coordination require effort and funding
- Urban stakeholders and industry groups are easy to reach – the challenge is consultation with rural people lacking technology, language skills or literacy
 - *This is partly resolved through existing NGO networks*
- The sector will not develop without stakeholder consultation
- Coordination is required to market Marula as a regional product and differentiate it from other producers
- People are empowered when organised and cooperating at a regional level – that is key to economies of scale – creating the power of Marula as a cohesive factor in a community
- When people are organised they can be organised around their rights
- ABS authorities could ensure Marula is only bought from registered suppliers

Other group inputs

- Delegates were asked to consider how the workshop discussions and outcomes can be shared with regional stakeholders who did not attend
- Ownership and communication of a future sector plan need to be discussed and agreed at an early stage



The way forward

Delegates selected three elements of a future Marula sector plan for future development – with an emphasis on practical steps and quick wins. These elements were again discussed in groups. The following is a summary of group discussions:

1. Quality standards and reliable supply

- The sector needs to identify different standards required across the value chain
 - *Standards required for oil, leaf extracts, fruit pulp, juice, roots, leaves, seed cake etc*
- Parameters must be wide enough on 'mission-critical' standards
- Product specifications need to be developed for:
 - *Oil*
 - *Aiming for a quick win by end-Feb 2020*
- Seed cake
- Fruit pulp
 - *Food safety standards*
 - *Check for anti-nutrients and fermentation*
- Fruit juice
 - *General food health and safety standards*
- Standards must be developed/monitored by a trusted and credible laboratory
- Coordination and funding of standards developed could be by ABioSA, BioInnovation Africa, CQSP-SA project, the SADC Secretariat and SMEs
- Standards in the Marula value chain include HACCP and GMP
- It is important to distinguish between specifications and standards
- Minimum standards should be defined for different products and markets
- There needs to be differentiation between oil from different regions, and between crude and 'ready-to-formulate' oil
- The private sector must be engaged in the standards conversation
- Production guides should be developed and made available – including good manufacturing practice, agriculture procedures etc

Development and application of standards requires good technical and stakeholder communication

2. Market access

- Short term market access initiatives may be assisted by development of a platform or proto-association which brings together different stakeholders working with Marula
 - *This could be led by organisations already working on market access*
 - Coordination through online, meetings, task force/s, council
 - *Emphasis on benefit to members, with potential services including:*
 - Information and support for developing new markets
 - Analysis of demand
 - Identification of barriers and how to overcome them
 - Product dossiers
 - SME capacity building
 - Helping policy makers to market the sector
- A business case and market access plan should be developed for each potential product – based on what the market wants
 - *Industry needs to be included at an early stage in discussions*
- The sector needs to identify common areas where competing producers can benefit from collaboration
- Existing market research should be accessed – eg trends in natural products for hair care
- Future workshops should involve all stakeholders in the Marula value chain
- Protection of the SADC Marula market needs to be considered
- SA has an export development strategy for natural products – would this make sense for other SADC/SACU countries?
- CSIR has been commissioned to conduct business case research on Marula – the results may inform a future sector development plan
- Market access work needs to coordinate with future marketing and sales initiatives that aim to create demand for Marula
- Market promotion should include R&D information on the effects of Marula (eg anti-wrinkle effects)

3. Conservation and sustainable use

- The planned 2020 resource assessment workshop was welcomed as a positive short-term initiative required to develop the Marula sector
- The group questioned how production data could be accessed, and discussed the use of technology (eg remote sensing) to measure resources
- Available resource information needs to be updated and collated
- Modelling can be used to predict future distribution patterns and how the resource will be affected by climate change
- Access to information, responsibility for monitoring and management of data is a sensitive issue that needs to be considered
- Communities must remain engaged and involved in decisions about conservation and sustainable use
- Existing resources and approaches need to be consolidated
- Grafting training should be provided to communities (tried without success in Namibia as there was low community interest/uptake)
- Climate change should be taken into consideration when predicting future distribution
- Conservation should not rely only on international support
- Fieldwork for resource assessments should involve communities and their traditional knowledge

Other issues raised

- **Should there be a different approach/plan for the food and cosmetics sectors? This is probably more relevant at a market level as there is a lot of overlap at the harvest and production level.**
- **Investors and potential monopolisers are not waiting for a plan – they have the potential to capture and exploit the market despite regional coordinated efforts – and can self-regulate and determine their own quality standards**
- **The Marula tree can be seen as a profit centre with different revenue streams**
- **Any small sector that starts to grow will attract people seeking to exploit it – this can't be stopped but the sector can prepare for it**
- **Supply and demand are hard to balance and need to be tackled simultaneously**
- **Marula will not be taken seriously as a global industry if the production is all from wild harvesting**
- **It doesn't matter how many tonnes you have – can you get it to market?**
- **We don't want a single monopoly producer – but sometimes one big producer is of benefit to the whole industry**

Appendix A – workshop agenda

1st regional workshop on a Marula sector development plan

DAY 1		
Monday 4 November 2019		
Time	Topic	Speaker
08h30	Arrival and registration	
09h00	Welcome & opening remarks	Teofilus Nghitila Namibian Ministry of Environment and Tourism
09h15	Introductions and workshop guide	Facilitator
09h30	Workshop background & aims	Suhel Al-Janabi ABS CDI
09h45	The concept of a sector master plan	Adrie El Mohamadi GIZ/ABioSA
10h00	Setting the scene Reflections of 1st national Marula workshop Updates on EU market access work by ABioSA Rationale for a regional/sector approach	Cyril Lombard ABioSA
10h30	Discussions	Facilitator
11h00	BREAK	
11h30	A view across the region Experience, opportunities and challenges from Namibia, eSwatini, Botswana, Zimbabwe and South Africa	Group inputs
12h30	Discussions	Facilitator
13h00	LUNCH	
14h00	Resource assessments and monitoring – a key economic and ecological feature of a sector development plan Credible methodologies for key biotrade value chains Building on existing knowledge Aligning methodologies/reporting across the region Preview of 2020 resource assessment workshop	Neil Crouch SANBI
14h30	Discussions	
15h00	Prioritising elements of a regional sector development plan	Group inputs
15h30	BREAK	
15h45	Working groups on identified priority elements of a regional sector development plan	Working groups
16h45	Report back and summary of Day 1	Plenary
17h00	End of Day 1	
18h00	Cocktail reception	

Day 2		
Tuesday 5 November 2019		
Time	Topic/content	Speaker
08h45	Group report back	Plenary
10h15	BREAK	
10h30	How could the sector plan be developed?	Working in groups
11h30	Feedback from group work	Plenary
12h30	Wrap up and way forward	Plenary
13h00	LUNCH	
14h00	End of workshop	

List of delegates



Name	Organisation	Email
Botswana		
Job Morris	Natural Justice	job@naturaljustice.org.za
Georgia Duerst-Lahti	Botswana Natural Products group	dr.georgia@dlgnaturals.com
Jon Tris Lahti	Botswana Natural Products group	operations@dlgnaturals.com
Kebaabetswe Keoagile	Ministry of Environment, Natural Resources Conservation and Tourism (NFP)	kebkeoagile@gov.bw
Sibongile Mavimbela	Senior Programme Officer: Environment and Climate Change at SADC	sibongiledlamini4@gmail.com
Oageng Disang	Ministry of Environment, Natural Resources Conservation and Tourism	oodisang@gov.bw



eSwatini		
Hlobisile Sikhosana-Shongwe	Ministry of Tourism and Environmental Affairs (NFP)	hlobskhos@yahoo.com



Germany		
Suhel al-Janabi	GIZ Access and Benefit Sharing Initiative	s.aljanabi@geo-media.de



Namibia		
Klemens Riha	GIZ Namibia	klemens.riha@giz.de
Michel Mallet	Centre for Research Information Action in Africa South African Development and Consulting	m.mallet@craasadc.org
Pierre du Plessis	SADC	pierre.sadc@gmail.com
Teofilus Nghitila	Ministry of Environment and Tourism	Teofilus.Nghitila@met.gov.na
Henry Ndengejeho	Ministry of Environment and Tourism - Biodiversity Management and Climate Change	henry.ndengejeho@met.gov.na
Wilbard Nashandi	Ministry of Industrialisation, Trade and SME Development	wilbard.nashandi@mitsmed.gov.na
Dagmar Honsbein	Namibian Network of the Cosmetics Industry	dagmar@ideal-x.com.na
Paulus Mungeyi	National Commission on Research Science and Technology	pmungeyi@ncrst.na
Hilya Shikongo	National Commission on Research Science and Technology	hshikongo@ncrst.na
Nelao Negola	Namibian Network of the Cosmetics Industry	info@taneta.com.na
Mariane Akwenye	Namibian Network of the Cosmetics Industry	mariane@nomadspa.com
Henning Wahlers	Promotion of Business Advisory and Economic Transformation Services (GIZ)	henning.wahlers@giz.de
Christine Pfandl	Global Business Network Programme (GIZ)	christina.pfandl@giz.de
Dave Cole	Centre for Research Information Action in Africa South African Development and Consulting	davenamibia@gmail.com
Martha Kangandjo-Negumbo	Eudafano Women's Co-operative	kangandjomartha@yahoo.co.uk
Esther Hoveka	NEEMA Cosmetics	neema@mweb.com.na
Giulia Kalt	Biodiversity Management and Climate Change (GIZ)	giulia.kimmai@hotmail.de
Magreth Tsuses	Eden Manufacturers CC	edenfyp@gmail.com
Queenteline Nanus	Ousie's Skincare	Ousiesskincare@gmail.com
Mpingana Dax	Kuti Oil	mpingana@kutioil.com
Johannes Kanyetu	Ministry of Environment and Tourism	justkanyetujohannes@gmail.com
Zodidi Gaseb	African Natural Products	zgaseb@gmail.com
Lizelle Jacobs	Biodiversity Management and Climate Change (GIZ)	lizelle.jacobs@giz.de



Gero Von der Wense	Namib Desert Jojoba Oils Producers	wenseg@gmx.de
Martin Wittnebeen	Natura Africa CC	info@natura.africa.com
Norman Mcladi	Biodiversity Management and Climate Change (GIZ)	norman.mcladi@giz.de
Yamillah Jossob	Biodiversity Management and Climate Change (GIZ)	yamillahjossob@gmail.com
Francois Lotterring	Photographer	francios218@yahoo.com
Steve Carr	National Botanical Research Institute	steve.carr@mawf.gov.na
Alfred Swart	Parliament	alfredswart2@gmail.com
South Africa		
Cyril Lombard	Access and Benefit-Sharing Compliant Biotrade in South(ern) Africa (consultant)	newbotanical@hotmail.com
Adrie El Mohamadi	Access and Benefit-Sharing Compliant Biotrade in South(ern) Africa	adrie.elmohamadi@giz.de
Serole Sehona	Access and Benefit-Sharing Compliant Biotrade in South(ern) Africa	serole.sehona@giz.de
Johan Botha	Industrial Development Corporation	JohanB@idc.co.za
Karen Swanepoel	Southern African Essential Oil Producers Association	saeopa@gmail.com
Greg Gordon	Council for Scientific and Industrial Research	GGordon@csir.co.za
Phatheka Mbambiso	Council for Scientific and Industrial Research	Pmbambiso@csir.co.za
Sibusiso Mathenjwa	Traditional Healers Organisation	sbumat@yahoo.co.uk
Neil Crouch	South African National Biodiversity Institute	n.crouch@sanbi.org.za
Makhosazana Mayekiso	Department of Trade and Industry	MMayekiso@thedti.gov.za
Shumi Pango	Department of Science and Innovation	Schumi.Pango@dst.gov.za
Sechaba Bareetseng	CSIR: New Partnership for Africa's Development Southern Africa Network for Biosciences Programme	sbareetseng@csir.co.za
Elsie Meintjies	United Nations Industrial Development Organisation: Global Standards and Quality Programme	E.MEINTJIES@unido.org
Judith Moralo	CACOSA	judith.moralo@gmail.com
Jonathon Rees	Proof Communication Africa	jonathon@proofafrica.co.za
Anzet de Plessis	Proof Communication Africa	anzet@proofafrica.co.za
Zimbabwe		
Andrew Le Breton	Bio-Innovation Zimbabwe	gus.lebreton@gmail.com
Beavan Ngoshi	Ministry of Environment, Tourism Hospitality Industry	ngoshibeavan@gmail.com
Milton Muusha	Environmental Management Agency	mmuusha@gmail.com



**Did not attend****Namibia**

Samantha Kheibes	Biodiversity Management and Climate Change (GIZ)	samantha.kheibes@giz.de
Rosa-Stella Mbulu	Biodiversity Management and Climate Change (GIZ)	rosa-stella.mbulu@giz.de
Sibusiso Sibanoa	Centre for Research Information Action in Africa South African Development and Consulting	info@criaasadc.org
Bianca Lueesse	Promotion of Business Advisory and Economic Transformation Services - (Cosmetic Sector-GIZ)	info@nanci.biz
Silke Ruegheimer	ALS Laboratory	analab@mweb.com.na
Joern-Hendrik Mueller-Bornemann	Promotion of Business Advisory and Economic Transformation Services (GIZ)	joern-hendrik.mueller-bornemann@giz.de
Christoph Oldenburg	Promotion of Business Advisory and Economic Transformation Services (GIZ)	christoph.oldenburg@giz.de
Kauna Schroder	Ministry of Environment and Tourism	bks7904@gmail.com

**South Africa**

Obakeng Maema	Technology Innovation Agency	Obakeng.Maema@tia.org.za
Shumi Pango	Department of Science and Innovation	Schumi.Pango@dst.gov.za
Sarel Van de Walt	Technology Innovation Agency	Sarel.VanDerWalt@tia.org.za
Tebogo Moila	Department of Trade and Industry	TMoila@thedti.gov.za
Sinah Mosehla	Department of Trade and Industry	Smosehla@thedti.gov.za
Thabang Bambo	Department of Science and Innovation	Thabang.Bambo@dst.gov.za
Matsidiso Bambo	Small Enterprise Finance Agency	MatsidisoH@sefa.org.za