



ABS Compliant Biotrade in South(ern) Africa

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List of Acronyms

ABS	access and benefit-sharing
aTK	traditional knowledge associated with the utilisation of genetic resources
ATMIDA	African Traditional Medicines Development Association
BABS	Bioprospecting Access and Benefit-Sharing (regulations of South Africa)
BCPs	biocultural community protocols
BES	National Biodiversity Economy Strategy of South Africa
BIDC	Biomanufacturing Industry Development Centre (of the CSIR)
BioPANZA	Bioproducts Advancement Network South Africa
BMZ	German Federal Ministry for Economic Cooperation and Development
BSOs	business support organisations
CAGR	compound average growth rate
CBI	Netherlands Centre for the Promotion of Imports from Developing Countries
CEPA	communication, education and public awareness
CBD	Convention on Biological Diversity
CECOSA	Cosmetic Export Council of South Africa
CSIR	Council for Scientific and Industrial Research
CTFA SA	Cosmetics, Toiletries and Fragrance Association of South Africa
DEA	Department of Environmental Affairs
DEG	Deutsche Investitions- und Entwicklungsgesellschaft mbH
DPME	Department of Performance Monitoring and Evaluation
DST	Department of Science and Technology
DTI	Department of Trade and Industry
FDA	Food and Drug Administration
GEF	Global Environment Facility
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
IDC	Industrial Development Corporation
IPLCs	indigenous peoples and local communities
IPRs	Intellectual Property Rights
M&E	monitoring & evaluation
MDASA	Moringa Development Association of South Africa
NEMBA	National Environmental Management: Biodiversity Act
NGOs	Non-governmental Organisations
OECD DAC	Organisation for Economic Cooperation and Development/Development Assistance Committee
PIC	prior informed consent
PSC	Project Steering Committee
REACH	Registration, Evaluation, Authorisation & restriction of Chemicals
SAAC	South Africa Aloe Council
SADC	Southern Africa Development Community
SEOB	South African Essential Oil Business Incubator
SAEOPA	South African Essential Oil Producers Association
SAHTA	South African Honeybush Tea Association
SARC	South African Rooibos Council
SDGs	Sustainable Development Goals
SECO	State Secretariat for Economic Affairs
SEDA	Small Enterprise Development Agency
SIPPO	Swiss Import Promotion Programme
SMEs	small and medium sized enterprises
SPII	Support Programme for Industrial Innovation
THO	Traditional Healers Organisation
THRIP	Technology and Human Resources for Industry Programme
TK	traditional knowledge
UEBT	Union for Ethical BioTrade
UNCTAD	United Nations Convention of Trade and Development
UNDP	United Nations Development Programme



1. Executive Summary

South Africa is the 3rd most biologically diverse country in the world, with over 21,000 plant species, many of them endemic. Together with neighbouring countries it is also host to emerging biotrade value chains of economic importance. Additionally, a rich cultural heritage has resulted in many indigenous peoples and groups having valuable traditional knowledge associated to the uses of these plant species for food, beverages, medicines and ceremonial purposes.

The Department of Environmental Affairs (DEA), recognising the economic importance of conserving and supporting the sustainable use of these assets, in 2004 pioneered legislation through the National Environmental Management: Biodiversity Act (NEMBA), and regulations governing access to these resources and ensuring benefit-sharing from their use, through the Biodiversity Access (BABS) regulations.

The DEA has established a National Biodiversity Economy Strategy, and along with other government policies and strategies, establishes a good policy platform for the development and growth of the biotrade sector. Job creation and black economic empowerment are key targets in these policies and strategies.

Regionally there is momentum towards implementation of the Nagoya Protocol, and globally too with the European Union, Switzerland and others requiring its SMEs to comply with regulations in the provider countries.

Global markets for natural and organic products continue to grow strongly, and are underpinned by long-term consumer trends. Local markets for these products are also growing, creating the conditions for a robust and growing biotrade sector.

In South Africa there are numerous meso-level organisations that can support multiple SMEs in the biotrade sector. Additionally, the programmes of SIPPO and CBI are geared to provide support for exports to Europe from the South African natural products sector.

These factors and the ability of the phytochemical uniqueness of South(ern) African plant biodiversity and associated traditional knowledge create a strategic opportunity for the region to establish a competitive biotrade sector. However, the sector has a number of challenges that constrain the innovation and growth, including:

- Access and benefit sharing regulations that are unworkable for many SMEs, low levels of compliance, and therefore a disincentive to investment in the sector;
- Non-tariff barriers in key consumer markets are complex and too expensive for SMEs to comply with thereby limiting the scale and scope of the biotrade sector;
- Indigenous and local communities remain at the low end of biotrade value chains often because they are poorly resourced and cannot engage industry effectively;
- SMEs in the biotrade sector are often very small, and have limited skills and capacities for financial management, business planning and are therefore not investment ready – even if they have good ideas and concept; and
- There are no dedicated resources or incentive schemes for the biotrade sector, and extent incentive schemes do not easily match biotrade sector SME needs, and are poorly coordinated across departments.

An intervention strategy consisting of three complementing and mutually reinforcing components is proposed with the overall objective of attaining a high-growth, jobs-rich, innovative biotrade sector in South and southern Africa which is compliant with national ABS regulations and supports sustainable development goals and contributes to livelihoods of rural people and the sustainable use of South(ern) Africa's plant biodiversity:

Component 1 provides technical assistance to South African and regional ABS compliant value chains including supporting new market access by addressing selected non-tariff barriers that



bottleneck the growth of the sector, supporting the strategic and constructive role of IPLCs in these value chains, and assisting SMEs to improve their investment readiness through improved financial and business planning.

Component 2 provides financial assistance to SMEs for innovation and growth through the establishment of a dedicated biotrade grant funding facility that works in coherence with, but effectively independently of, other relevant incentive schemes, and ensures financial, technical and human resources engagement by the SMEs, and will be governed with the support of an Investment Committee.

Component 3 supports the development of an enabling regulatory environment through policy advice and technical support to the DEA for the revision of NEMBA and BABS, supports sector organisations to develop and implement industry best practices related to ABS, and knowledge management and sharing of best practices and lessons learned at a regional and global level including through cooperation with UNCTAD BioTrade.

The project will work with government and industry stakeholders to identify high-impact species and value chains, including transboundary value chains. Selected species will include abundant wild harvested resources and those either under cultivation, or where planned cultivation secures sustainability for the future. With its intended impacts on conservation, rural livelihoods, SME development, job creation, local empowerment, fostering of innovation, governance and global partnerships the project does not only support attaining a large number of individual SDGs but also adheres closely to the transformation paradigm of the Agenda 2030.

The project will be implemented and managed as part of the ABS Capacity Development Initiative in a co-funding arrangement that builds on its extensive engagement with the DEA, regional, African and global dialogue and technical support. Project implementation will be through establishment of a South African office with local experts, and implement the project through a strategic partnership with the DEA and DTI, collaborating partners, to amplify and scale up the project's outcomes, and implementing partners that are sector specialists and technical assistance providers, and will be contracted to deliver many of the project outputs.

The proposed co-funding contribution of SECO to the ABS Initiative – **CHF 3 million is for a 3,5-year period** – will include a 6-months inception phase and a 3-months closing phase. While the project is fully integrated in the results framework of the ABS Initiative it will also allow for distinct planning, management and reporting. To this end a Project Steering Committee (PSC) will oversee progress and yearly planning while at the same time SECO will be represented in the Regional Steering Committee for Africa of the ABS Initiative with the other donors funding activities in Africa.

2. Context of biotrade in South(ern) Africa

2.1 Biodiversity and main policy context

South Africa is the 3rd most biologically diverse country in the world (after Indonesia and Brazil), with over 21,000 plants species, representing around 8% of the world's vascular plants. Along with the Cape Floristic Kingdom, and two other global biodiversity hotspots, South Africa has very high levels of endemism. Additionally, South Africa shares plant species with neighbouring countries, notably well-known species from which some biotrade products have already been commercialised – such as marula, baobab and devil's claw.

South Africa, and the region, also bears a high degree of cultural diversity with many groups having used these plant resources for food, biotechnology/fermentation, cosmetics, medicine, ceremonial and other uses for hundreds, even thousands, of years. This associated traditional knowledge can represent important economic value in the biotrade sector by, for example, guiding product development, and supporting marketing of valuable properties to industry and consumers.



Recognising the importance of its biodiversity and cultural assets, and the potential of a sector based on the sustainable use of biological resources to create rural jobs, South Africa pioneered legislation governing access to *indigenous*¹ biodiversity and the associated traditional knowledge with the National Environmental Management: Biodiversity Act, in 2004 (NEMBA) well before the Nagoya Protocol was adopted in 2010. The Biodiversity Access and Benefit-Sharing Regulation (BABS, 2008) is to implement the NEMBA legislation.

In 2014 the DEA carried out a review of its effectiveness in achieving its objectives of conservation and sustainable use, and concluded that Chapter 6 of NEMBA should be amended. This process, involving wide consultation and inputs from specialist task teams, is currently underway, and it is expected that the amendment process will be finalized in 2019.

In 2016 the DEA developed South Africa's National Biodiversity Economy Strategy. The strategy sets out ten "Transformative Enabling Interventions" for the bioprospecting/biotope sector:

- Streamlining the regulatory environment;
- Optimise supporting institutional arrangements;
- Enhancing education, skills and capacity;
- Facilitating know-how, technology exchange and innovation;
- Improving access to finance and raising levels of investment;
- Increasing net exports and improving access to markets;
- Promoting participation and awareness;
- Enhance research and developments;
- An economic transformation initiative; and
- Advocate the value of biodiversity in the bioprospecting/biotope sector.

The strategy defines the following targets:

- Jobs: 30-50% of bioprospecting products must have community involvement in the supply chain;
- Bioprospecting sub-sector expansion: contribute to increasing the number of products in the domestic and international markets through growing cultivation of natural ingredients by at least 500 hectares per annum;
- ZAR 500 million national equity: ZAR 250 million product development and sales from small, medium and micro enterprises (SMME) and ZAR 250 million on fixed assets and infrastructure resulting in improved income, skills development, institutional capacity building, entrepreneurship and food and environmental security; and
- Sustainable use: Develop a national mechanism for the repository of natural product compounds.

The biotope sector is also impacted by the policies and strategies of DST, in particular its Bio-economy Strategy, and its bill for the "Protection, Development and Management of Indigenous Knowledge Systems".

In 2016 the DEA hosted a 5-week "Bioprospecting Laboratory" process, bringing together 25 stakeholders relevant to the biotope sector including public sector, state owned enterprises, private sector, civil society and academia to address issues of coordination, and an "innovation chasm", amongst other issues. This resulted in the establishment of the Bio Products Advancement Network South Africa (BioPANZA), which will promote applied research, local processing, innovation and product development as well as promote the use of and awareness about products stemming from South Africa's indigenous biodiversity and traditional knowledge. BioPANZA also seeks to provide for a coordinated approach between DEA and DST regarding their mandates on associated traditional knowledge and indigenous knowledge systems respectively. BioPANZA has a goal to develop and

¹ "Indigenous" biodiversity refers to species which develop, occur naturally, or have existed in a country for time immemorial. The meaning of "indigenous" species thus differs from the meaning of "endemic" species, which are unique to a distinct geographical area, i.e. occur nowhere else.



improve the bioprospecting/biotope industry to create a sustainable, inclusive and commercially viable sector adding 10,000 new jobs and contributing ZAR 1.7 billion to GDP at 10% per annum by 2030.

The DTI has an impact on the biotope sector through its Industrial Policy Action Plan for 2017/18 to 2019/20 where chemicals, pharmaceuticals and cosmetics comprise sectoral focus areas through a chemicals and bio-chemicals development plan, an advanced bio-manufacturing hub, and a natural ingredients export development strategy. As the biotope sector is made up of small businesses with significant potential for job creation, the DTI's support and incentive schemes for SMEs also has a significant bearing on the sector.

Regionally, 14 of 15 SADC member states ratified or acceded to the Nagoya Protocol (with the exception of the United Republic of Tanzania). Notably, on 27th June 2017 Namibia gazetted its "Access to Biological and Genetic Resources and Associated Traditional Knowledge Act, 2017" and is now embarked on a process to develop its regulation to implement the legislation.

The Southern African Development Community (SADC) Biodiversity Strategy, 2008, consists of the following three broad strategic areas:

- Enhancing the region's economic and business base by adding value to its biological resources and engaging in "Biotope"
- Ensuring that economic opportunities from "Biotope" and related initiatives do not lead to the unsustainable use of the region's biodiversity; and
- Developing and promoting regional programmes on: biodiversity awareness; capacity building; research and development; and sustainable financing.

In 2013 SADC presented its Biodiversity Action Plan with the following main activities:

- Biodiversity governance;
- Biodiversity based livelihoods;
- Biodiversity for economic development;
- Biodiversity management systems;
- Biodiversity and climate change; and
- Biodiversity and other development initiatives (such as energy and mining).

These activities are aligned with the 10-year CBD Strategic Plan and its Aichi Biodiversity Targets, as well as national priorities and strategies of the member states.

Globally, as of September 2017, there are 101 ratifications of the Nagoya Protocol, among them key markets such as India, Switzerland, Norway, Mexico, Japan, and China as well as Brazil having regulations in place and planning to ratify soon.

The European Union has set out its Regulation (EU) No. 511/2014 on compliance measures for users in the "Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization in the Union" on 16 April 2014. A key aspect of the measures is that companies in the European Union are required to ensure they access materials in compliance with the regulations in the countries from where the materials originate. These requirements are similar in Switzerland where the Nagoya Ordinance came into force on 1st February 2016.

2.2 Market potential of biotope and sector context

Global markets and major trends

Numerous market studies indicate that the market for natural and organic ingredients and consumer products continues to grow strongly. For example, in 2016 Mintel² reported that the market for

² Mintel, 2016. Global Food and Drink Trends 2017. Mintel Group Ltd., London, 22 pp.



superfoods expanded by 202% in the past five years, the NEXT Forecast 2016³ estimates „U.S. consumer sales of natural, organic and healthy products are forecasted to expand 64% from USD 153 billion in 2013 to USD 252 billion by 2019. This is a compound average growth rate (CAGR) of 8.6%, which is more than four times the projected growth rate of mainstream consumer packaged goods“. For the natural and organic personal care sector in the USA the market size in 2016 was USD 4.5 billion, an increase of 7% on the previous year⁴.

Market reports show that in Sweden in the first half of 2017 the organic food and beverage sector increased 7-8%, a value increase of SEK 1 billion (EUR 105 million) over six months. Also in 2017, the Naturkosmetik Verlag reports that in the German market about nine million consumers buy natural cosmetics several times a year and their purchasing behaviour caused turnover in the first half of this year to grow by around 2%. The “Green & Clean” trend is to be seen everywhere in neighbouring countries with robust market development and also internationally⁵. Moreover, interest of consumers in biodiversity issues generally and specifically in (fair traded) biodiversity based products is increasing steadily in key markets of Europe, Asia and the Americas. This is being impressively revealed by the Biodiversity Barometer (www.biodiversitybarometer.org), conducted by the Union for Ethical Biobusiness, a longstanding partner of the ABS-Initiative. This picture is supported underpinned by the global megatrend and demographic of “Lifestyle of Health and Sustainability”.

For industry supplying consumers with these products it means a continuous search for new ingredients with health-promoting properties, from natural sources, and sustainably produced.

This creates a long-term opportunity for the biotrade sector – the social and environmentally sustainable use of indigenous plant materials by local communities, farmers, small and medium sized enterprises in the manufacture and trade of natural ingredients and consumer products.

Example of how global trends relate to market potential for biotrade products

Reliable market reports on the market potential for specific South(ern) African biotrade ingredients and consumer products are limited, or non-existent. Promoters of the biotrade sector therefore need to rely on reports and data for natural and organic products in different sectors such as nutraceuticals, herbal medicines, active cosmetic ingredients, and dietary supplements, and to understand the rationale linking the potential market for biotrade products to the market natural and organic products. The key to this is to understand consumer needs and expectations.

Promoters of the biotrade sector therefore need to rely on reports and data for natural and organic products in different sectors such as nutraceuticals, herbal medicines, active cosmetic ingredients, and dietary supplements, and to understand the rationale linking the potential market for biotrade products to the market natural and organic products.

Annex A: presents this rationale for the market potential for biotrade products based on the biological resource of the marula fruit – which serves as a *pars pro toto* example for the entire Southern African Biotrade sector. The logic is based on the overarching mega trend of the lifestyle of health and sustainability. At the basic level, marula fruit is natural, and novel (a key driver of industry interest), and can be produced sustainably with “fair trade” aspects. This already leads to a useful market potential. However, stronger market potential is more likely if the product also possesses properties that enable it to be positioned in general or specific health trends. Annex A: shows the following logical consideration:

³ New Hope Network & Sterling-Rice Group, 2015. Next Forecast 2016 - Natural & Organic Trends and Opportunities. Boulder, Colorado, 215 pp.

⁴ Armstrong, Kathleen, 2017. Americas - US: Natural & Organic Market Report 2017. Citing Ecovia Intelligence. Accessed at https://www.cosmeticsbusiness.com/market_reports/article_page/Americas_US_Natural_Organic_Market_Report_2017/130727 at 25 October 2017

⁵ Heinze, Karin, 2017. Continuing success of international natural cosmetics markets. Accessed at http://organic-market.info/europe.html?af_criteria=97 at 25 October 2017



- Marula products are traditionally used for treatment of ailments directly linked to modern consumer needs;
- Marula products contain molecules and compounds directly linked to effective treatment of same conditions;
- Scientific and academic studies show causal link between molecules and compounds in marula products in *in vitro* and other assays linked to same consumer health needs; and
- Market intelligence indicates clear trends for which marula products can be positioned to fulfil and therefore have stronger “market pull”.

It is thereafter a matter of product innovation and development, and to support the relevant value chains and SMEs, to enable that the market potential is realised. Standard industry and market considerations – such as price points, certification, reliability, etc – need to be addressed.

The example shown for marula fruit products – ingredients and consumer products – is directly relevant to a significant number of other biotrade products from South(ern) Africa. Market data for related international biotrade products including açai are presented:

- Products containing açai berries estimated to be worth USD 3.3 billion globally;
- Beverage products account for the majority of implied market value, in particular flavoured, still drinks, juice and nectars and energy drinks; and
- From 2002 to 2012 (end June) a total of 2,636 products containing açai berries were launched.

Multiple parties who have worked in trade promotion, market development, and customer liaison and development share the view that industry is highly interested in novel biotrade products from South(ern) Africa, especially if they have (1) documented scientific properties linking the product to known consumer needs, (2) the products comply with relevant standards and regulations, (3) are reasonably priced and (4) can be supplied by a reliable SME.

This therefore represents a major sector opportunity for biotrade, and is the target market opportunity for the project ABS Compliant Biotrade in South(ern) Africa.

Strong local market opportunity

South Africa is a target market for biotrade products as it has, relative to neighbouring countries, higher levels of consumers with buying power for natural and organic products, and for African traditional medicines and related products. There are limited data on the size of these markets. However, there is wide consensus in the sector that although the “local” market represents a very useful starting point, the higher-value and larger scale of export markets are essential for businesses to achieve profitability. Market intelligence and the limited biotrade sector data available for South Africa indicate that the strongest export markets for natural and organic products, including biotrade products, are the EU, the USA, Japan, South Korea, Japan and China – all showing medium to high growth rates.

In studies⁶ cited in the DEA’s National Biodiversity Economy Strategy, March 2016, the biotrade sector was estimated to include 225 biotradors that traded 24 indigenous plant species and bee products. The value of the sector was estimated at ZAR 580 million in 2013, and to be growing at 6% per annum. The bulk of this, an estimated ZAR 410 million, was exported as raw or semi-processed products, i.e., dried whole, chopped, powdered plant material or extracted gel, crystal or powder products, with the remainder sold onto the value-added products which were sold within the domestic retail market.

The studies also found the formal domestic retail market in South Africa in 2012/2013 had 549 products containing indigenous plant and bee products on the shelves. The total revenue produced from these value-added products in the domestic retail market was approximately ZAR 1,5 billion in

⁶ DEA (undated). A Study of the Scope and Extent of the Utilisation of Indigenous Resources by Bioprospecting Industries in South Africa. Unpublished report, and DEA (undated) Situation analysis of four selected sub-sectors of the biodiversity and conservation sector in South Africa. Unpublished report.



2013. The majority of these products used *Aloe ferox*, *Apis* spp. (bee products), *Aspalathus* spp. (rooibos) or *Pelargonium sidoides* as active indigenous ingredient. These local value-added products fell into five product categories:

- Personal hygiene products (ZAR 620 million or 40% of products);
- Cosmetics (ZAR 590 million or 38% of products);
- Complimentary medicines (ZAR 170 million or 11% of products);
- Food flavourings (ZAR 120 million or 8% of products); and
- Oils (ZAR 50 million or 3% of products).

Biotrade sector support organisations, meso-level intervention

There are several organisations in South Africa providing technical and business support to SMEs in the biotrade sector, creating possibilities for reaching multiple SMEs and the sector as a whole. These include:

- African Traditional Medicines Industry Development Association (ATMIDA);
- PhytoTrade Africa;
- The South African Aloe Council (SAAC);
- South African Essential Oil Producers Association (SAEOPA);
- South African Association of Flavour and Fragrance Industries (SAAFFI);
- Cosmetic Export Council of South Africa (CECOSA);
- Cosmetics, Toiletries and Fragrance Association of South Africa (CTFA SA);
- South Africa Essential Oil Business Incubator (SEOBI);
- EgoliBio Incubator; and other incubators;
- South African Rooibos Council (SARC);
- South African Honeybush Tea Association (SAHTA);
- Honeybush Community of Practice;
- Moringa Development Association of South Africa (MDASA); and
- CSIR Biomanufacturing Industry Development Centre (BIDC).

The Swiss Import Promotion Programme (SIPPO) is embarked on a decentralized approach to service delivery in target countries including South Africa. The SIPPO programme focusses on the natural products sector and processed foods, and there are some commonalities with the biotrade sector. Trade promotion will be delivered through meso-level organisations bringing potential for cooperation and alignment with this project.

The DTI and the Netherlands Centre for the Promotion of Imports from Developing Countries (CBI) are developing a Natural Ingredients Sector Strategy, which includes supporting meso-level organisation.

A strategic opportunity

The Nagoya Protocol confers the right to sovereign states to regulate and control access to biological and genetic resources, and the associated traditional knowledge. Plant biodiversity provides much-needed novelty and uniqueness in molecules and compounds of interest to the natural products industry. This market potential, enhanced by meso-level support to the sector, and the wider considerations of ABS developments nationally and globally, creates **a strategic opportunity for biotrade if competitive and comparative advantages can be exploited.**

2.3 Key biotrade sector challenges

2.3.1 Regulatory environment

Although South Africa pioneered ABS regulations, NEMBA and BABS are widely recognised as problematic with low levels of compliance and perceived by industry as too onerous and unworkable, stifling the growth of the sector.



In the South and southern African context the term „biotrade“ refers to the collection, production, transformation, and commercialisation of goods and services derived from indigenous biodiversity. According to national law(s) these activities trigger several access and benefit-sharing obligations all along the value chain. In this regard, the scope of the South(ern) Africa’s ABS regulations are broader than the scope of the Nagoya Protocol, where only R&D on the genetic and/or biochemical composition of a genetic resource triggers a requirement for benefit-sharing agreements and permits. For example, in South Africa all actors at each step in the value chain are required to apply for permits, all of which require benefit-sharing agreements. This includes steps in the value chain most parties consider simple product development or quality control. As a result of these regulations, an SME having product development work carried out at a local or international laboratory would require that laboratory to sign benefit sharing agreements with providers and holders of traditional knowledge, even if the laboratory’s work only involves a minor contract for relatively routine work not typically associated with “discovery” of enormous benefits to be shared along the value chain.

Additionally, the time between an SME making an application for a bioprospecting permit to the DEA can be very lengthy, taking up to several years. In some cases, the regulator points out that the permit applications are incomplete and therefore causing the delays, with SMEs responding that some information requested in the permit application procedures are “unknowable” – for example – the SME may claim that although they wish to share benefits with the holders of traditional knowledge, it is not possible for them to determine who these holders / IPLCs are. This creates a situation which is a disincentive to SMEs and industry to invest in the biotrade sector.

The DEA has established a Bioprospecting Forum bringing together industry, organisations representing holders of traditional knowledge and related stakeholders, and relevant government departments, thus creating a platform for dialogue and a significant opportunity for coordinated and focused action to improve the sector. This forum, along with the process of revising the legislation and regulations, is a major opportunity to improve the regulatory environment for biotrade and genetic resources. However, the issues are complex with multiple stakeholders with apparently diverging interests in the outcome of the revision. There is an urgent need for new approaches to be considered making compliance easier and the permitting process quicker whilst achieving conservation and sustainable use objectives.

Additionally, there are problems with exploitation of weaker (or non-existent) regulations in neighbouring countries for biotrade in transboundary resources. This is particularly a concern as South Africa is a processing and logistics hub in the region and exploitation of these “loopholes” by some biotradors can undermine conservation and sustainable use and benefit-sharing in all countries concerned.

This raises policy and best practice issues for SMEs in the biotrade sector, including support organisations, councils and associations. On the one hand the regulator sees lack of compliance by SMEs, and on the other SMEs experience frustration in trying to comply and point out that their activities create necessary jobs particularly in rural areas. If the sector is to develop at a reasonable pace and reach its potential it will be necessary for there to be better alignment between industry policy and best practices, national regulations implementing the requirements and objectives of the Nagoya Protocol, and overarching national development objectives. The DEA is currently considering an amendment of BABS / NEMBA in this regard.

Complementing the national ABS measures, the South African Biodiversity Economy Strategy is seeking to integrate the UNCTAD BioTrade principles into the national biotrade sector and further suggests establishing an African BioTrade/Biodiversity Economy Forum. To ensure high ethical and environmental standards the ABS Initiative has established a long-term collaboration with the Union for Ethical BioTrade and PhytoTrade Africa



2.3.2 Non-tariff barriers in target markets

All countries and trading blocks in high-value target markets protect their consumers and industries from imported products, including biotrade ingredients and products, through non-tariff barriers. Typically, this requires extensive documentation proving the consumer safety of these “novel” products. Since 2007 and 2008, when PhytoTrade Africa was successful at achieving EU Novel Foods Regulation approval and USA Food and Drug Administration (FDA) *Generally Recognized as Safe* notification for baobab fruit, no new indigenous plant ingredient from southern Africa has gained global market access as a food or beverage ingredient.

In the area of African traditional medicines products intended for global markets, only one product from South Africa (derived from *Sceletium* sp.) has made any meaningful progress, whilst others have been singled out by regulators for removal from the market until approval processes have been carried out to required standards.

Whilst there has been more progress with new biotrade ingredients for cosmetic uses gaining access to global markets, many are restricted with poor or inaccurate documentation on and assessment of safety and toxicity. The majority of innovative novel ingredients from plant biodiversity also require registration as new chemical entities, an expensive and complex undertaking for individual SMEs.

Sustainably commercialisation of southern African plant biodiversity cannot reach its potential without a significant effort to address these market access obligations. The current situation is severely affecting the potential scope and scale of the biotrade sector as a whole with many of the market access and non-tariff barrier challenges beyond the scope and capability of individual SMEs.

2.3.3 Biotrade sector constraints

Weak participation of IPLCs in key biotrade value chains

There are two parallel narratives regarding biotrade, associated traditional knowledge of IPLCs, and prior informed consent, mutually agreed terms and benefit-sharing. On the one hand IPLCs decry that their knowledge is misappropriated, and they languish at the low-value end of the biotrade value chains. And on the other hand, many in the private sector decry that they are willing to share benefits if they could only identify the legitimate holders of the aTK, knew exactly what that knowledge was and what its relevance was to their product(s), and were able to reach a functional agreement with these holders.

With some exceptions, most IPLCs are not well resourced, have no organised articulation of their traditional knowledge in relation to key biotrade ingredients and products, and are therefore unable to engage SMEs and other stakeholders in relevant value chains to negotiate and reach effective and sustainable agreements. Often the process of organising IPLCs is left to the SMEs requiring the permits and agreements from the regulator. This can place both the SME and the IPLC at risk if not handled with care and expertise.

If transformation targets of government, such as “30-50% of bioprospecting products must have community involvement in the supply chain by 2030” are to be reached, it will be necessary for IPLCs to be resourced and organised and to become strong and functional participants in these value chains through development of and implementation of their strategies.

Poor levels of investment readiness in biotrade SMEs

In 2015 and 2016, the Industrial Development Corporation (IDC) developed an interest in the indigenous natural products sector in South Africa. The development finance institution was able and willing to invest significant financial resources into the sector. However, at least two key factors hamper this interest: (i) compliance with NEMBA and BABS is viewed as a risk to the sector and individual SMEs and (ii) **the pipeline of investment ready candidates is currently too limited.**



A large number of the SMEs in the biotrade sector are young, small and under-resourced, and many have poor financial planning skills and tools, and present to funders and financiers proposals and business plans that do not meet standard criteria. Industry experts point to the significant opportunities in the sector, and good concepts and ideas of the SMEs that would justify funding and financing if only the overburdened entrepreneurs could present their business cases at the required standards.

Relatedly, dialogue with SIPPO and CBI indicates that SMEs in the biotrade sector need technical assistance to reach standards for inclusion in their export market development programmes. This includes better positioning of the companies and their products to meet nuanced market requirements and trends in South Africa and overseas.

Limited funds suitable for biotrade product innovation and commercialisation, low levels of coordination

South Africa is the economic powerhouse of southern Africa with important capabilities in research, R&D, innovation, product and technology development and commercialisation. Further, South Africa has a good range of incentive schemes for SMEs to participate in the processes from research through to commercialisation. In particular, the DTI has a number of well-regarded incentives at the commercialisation end of the spectrum. However, there are several challenges inherent in the current setup including:

- A plethora of instruments for various aspects or stages of the process, sometimes with different government departments and agencies to deal with;
- Short notice changes to the schemes, for example the recent termination of the Incubator Support Programme;
- Different eligibility criteria for each instrument or incentive scheme making it difficult for one SME or support organisation to bridge the process across the innovation through to commercialisation spectrum;
- The instruments often deal with one aspect of the commercialisation process (see Annex E: showing the Technology Innovation Agency's tightly defined "technology readiness levels" in a strict linear approach when as a practical matter SMEs must deal with more "messy" process often addressing multiple stages simultaneously) resulting in frustrating "stop/start" delays, higher costs, and loss of momentum (see diagram at the end of Annex E);
- Limited attention to incentives to address global market access challenges / non-tariff barriers highly relevant to biotrade; and
- No dedicated incentives specifically targeting the specific economic and ABS compliance challenges related to biotrade / natural products derived from indigenous plants.

In 2015, the Department of Performance Monitoring and Evaluation (DPME) in the Presidency carried out a review of two relevant incentive schemes – the Technology and Human Resources for Industry Programme (THRIP) and the Support Programme for Industrial Innovation (SPII). Conclusions included:

- Fragmented landscape – government departments not well connected;
- Lack of business skills especially in small businesses; and
- Lack of angel financing or venture capital to fill the gap and fund the project to commercialisation.

During the implementation of the SECO Project Biotrade South Africa in 2012 to 2015, a grant facility was made available to SMEs. It was found to be difficult to coordinate and synergise the use of these grants with the other incentive schemes and support programmes such as those available through the DTI (for example – the Export Marketing & Investment Assistance Scheme – see Annex E:). One reason for this was that the SMEs were not certain to receive the support as it was an expense re-imbursement scheme which payments were often delayed, and another was that the scheme may have been open for a trade show not necessarily relevant to, or well-timed for, the SME's new product launch. There



was widespread and general agreement amongst the SMEs, business support experts and councils that the SECO funding would have benefited from a higher level of coordination and cooperation.

3. Intervention Strategy

The ABS Capacity Development Initiative is a multi-donor programme hosted by the German Federal Ministry for Economic Cooperation and Development (BMZ) and implemented by GIZ. The ABS Initiative's overall objective is to contribute – based on partnerships between South and North at a “level playing field” – to poverty reduction, food security, technology transfer, social development including equity and rights, and biodiversity conservation through implementing the *Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilisation*, in short, the *Nagoya Protocol on ABS*.

The intervention strategy of the ABS Initiative is based on three core processes related to capacity development: supporting (a) the elaboration of conducive regulatory ABS frameworks, (b) the development of ABS agreements and ABS compliant value chains, and (c) the participation of indigenous peoples and local communities in the relevant national and local processes. These three core processes are being supported by steering/guiding and auxiliary processes (see Figure 1). ABS agreements can take different formats, i.e. from standardised material transfer agreements between research organisations for non-commercial biological research to negotiated contracts between providers of biological material and users intending to develop commercial products.

Being aware of the need to demonstrate rather sooner than later that ABS and the implementation of the Nagoya Protocol contribute to national development goals as well as to the implementation of the SDGs and the Agenda 2030 globally, the ABS Initiative focused quite from the beginning its support to facilitate the establishment of **ABS agreements in the natural ingredients sector** with significantly shorter R&D phases (1 to 3 years) as compared to for example the pharma and biotech sectors (5 to 25 years). Product development based on traditional knowledge and an initial R&D phase are typical for the natural ingredients sector triggering the need for compliance with national regulatory ABS frameworks. The in most cases resulting continuous supply chains from raw material through

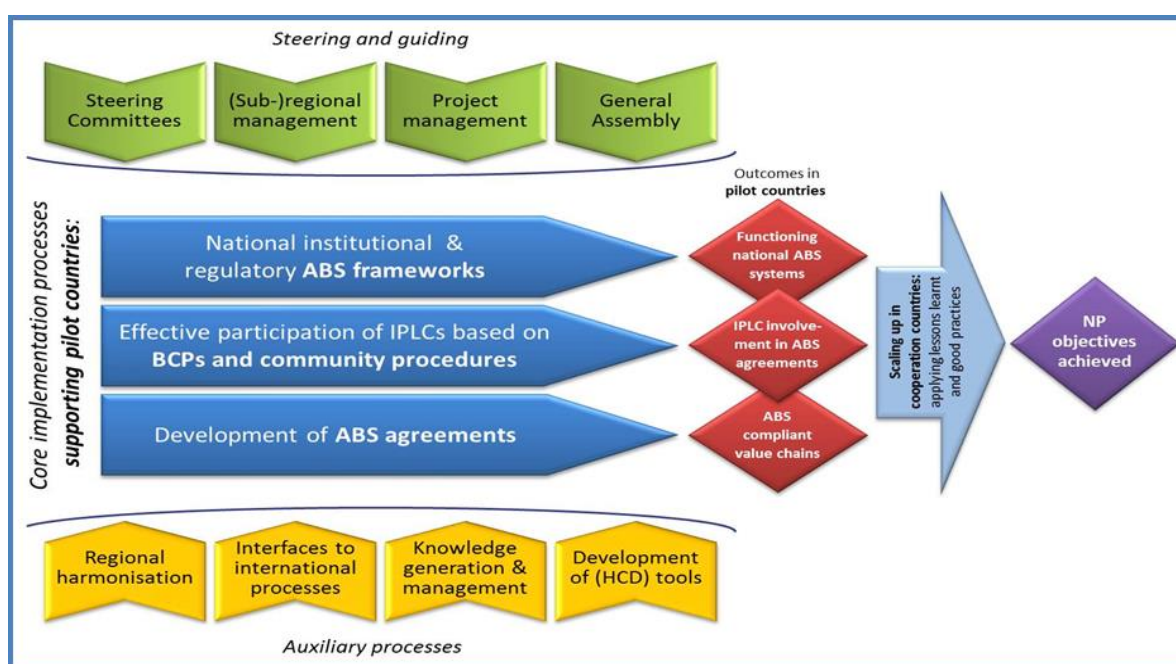


Figure 1 - Process landscape describing the intervention strategy of the ABS Initiative. Core processes are essential for achieving the intended results (i.e. outcomes in pilot countries and through up-scaling in cooperation countries the overall objective), whereas the auxiliary and steering processes facilitate and support the core processes.

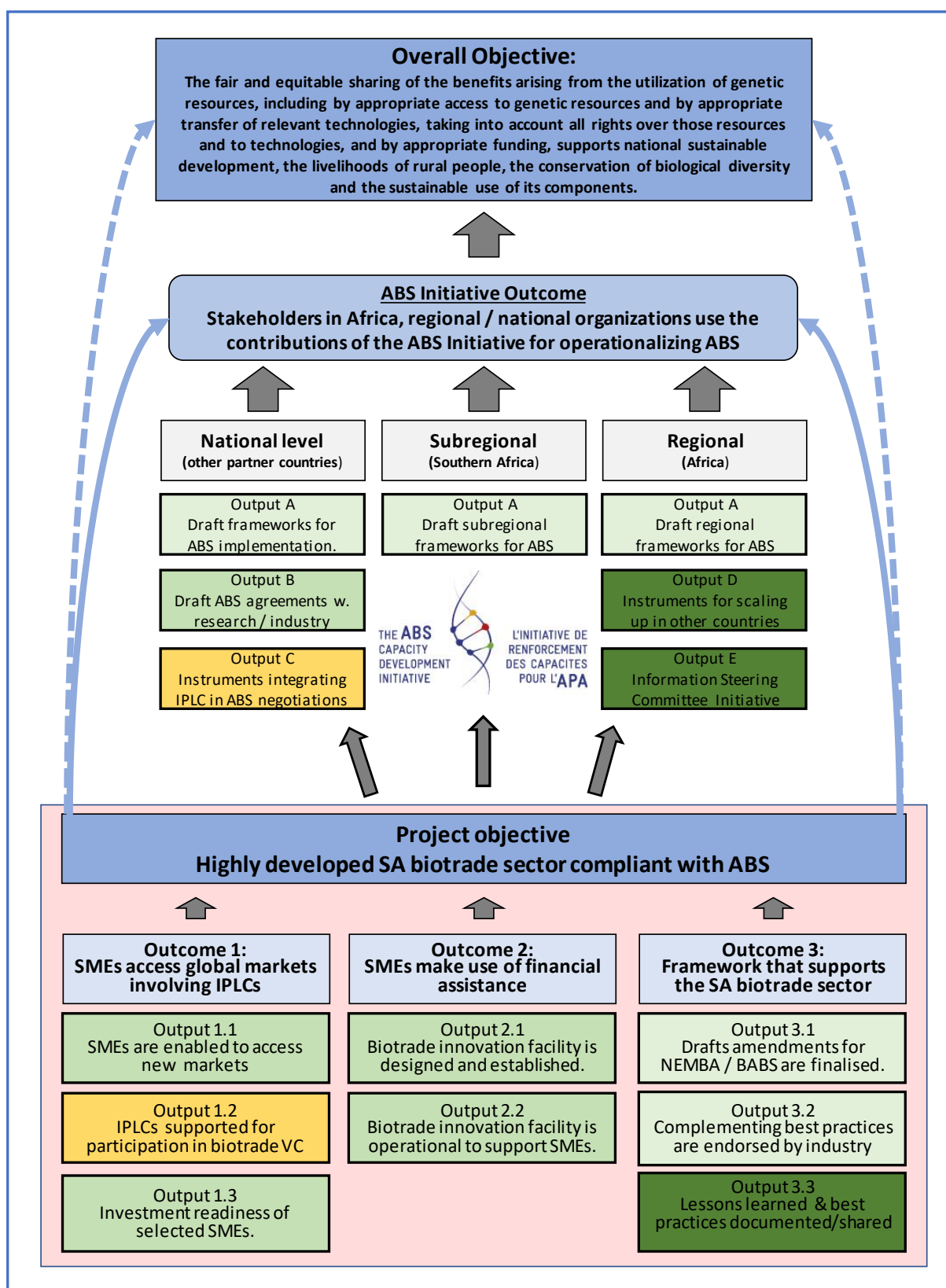


Figure 2 - Theory of change diagram illustrating the integration of the project “ABS Compliant Biotrade in South(ern) Africa” into the ABS Initiative intervention strategy.

intermediary to final products constitute ABS complaint value chains if all material transactions from provider to final user are in line with the national regulations implementing the Nagoya Protocol on ABS.



To this end, the ABS Initiative is partnering and cooperating since its beginning in 2006 with UNCTAD BioTrade and since the adoption of the Nagoya Protocol in 2010 with UEBT and PhytoTrade Africa – programmes and organisations who started to integrate the ABS principles of the CBD into their ethical and sustainability principles already during the ongoing negotiation process of the international regime on ABS in the mid-2000s.

Support of the ABS Initiative to partner countries for the elaboration of regulatory ABS frameworks and IPLC participation covers of course all relevant user sectors with their specific business models and contractual requirements for meaningful ABS agreements.

South Africa is one of currently four partner countries, where the ABS Initiative is directly supporting the implementation of the Nagoya Protocol. In line with DEA's National Biodiversity Economy Strategy the support focuses so far on the revision of the South African regulatory ABS framework with a view to reduce transaction costs based on experiences and lessons learned from analyses of a few selected natural and organic ingredients value chains.

In order to specifically address the above described biotrade sector challenges in South(ern) Africa (see chapter 2.3) SECO is co-funding the ABS Initiative with earmarked funds for the project “**ABS Compliant Biotrade in South(ern) Africa**”. The **overall objective of the project** is to attain a high-growth, jobs-rich, innovative biotrade sector in South and southern Africa – being compliant with national ABS regulations and contributing to livelihoods of rural people and the sustainable use of South(ern) Africa's plant biodiversity

Figure 2 illustrates, based on the theory of change of the SECO funded project “ABS Compliant Biotrade in South(ern) Africa”, how the project constitutes an integral part of the ABS Initiative by contributing directly and indirectly to the objectives of the ABS Initiative as well as providing biotrade sector specific lessons learned which can be up-scaled to other countries in and outside Africa. The logframe presented in Annex B: provides for further details on the intervention logic of the project including indicators from output to impact level. Annex C: compares and attributes the project outputs to the ABS Initiative outputs demonstrating the high coherence of the project with the ABS Initiative.

The intervention strategy of the project consists of three complementing and mutually reinforcing components addressing the above stated biotrade sector challenges in South Africa that hold back the development of the sector. The components are directly linked to the three outcomes of the project (see below and log frame in Annex B):

Main components	Outcomes	Intervention approach
Component 1: Technical assistance to South(ern) African and Regional ABS compliant biotrade value chains	<i>Outcome 1: SMEs access new global markets for biotrade products based on national and transboundary value chains with strong participation of IPLCs.</i>	Project providing technical assistance to SMEs and IPLCs
Component 2: Financial assistance through the innovation facility	<i>Outcome 2: SMEs use financial assistance designed specifically for biotrade innovation and growth whilst leveraging own resources and/or government incentive schemes.</i>	Project innovation facility providing financial assistance through grants to SME to implement selected proposals
Component 3: Policy dialogue and enabling environment	<i>Outcome 3: Improved ABS implementation framework supports the biotrade sector development in South Africa and the (sub-) region.</i>	Policy advice and technical support to Government and BSOs

Technical and financial assistance build on the lessons learned by the “Project Biotrade South Africa” which was supported by SECO and implemented by PhytoTrade Africa from 2012 to 2015. This project supported 10 SMEs to develop new consumer products, address global regulatory barriers, comply with ABS requirements, access new markets and grow their businesses. Additionally, new technologies



were developed and transferred to additional SMEs, and novel ingredients from indigenous plant were developed and launched. Innovation, product and market development was supported through a grant-making mechanism. Additionally, SMEs were provided with financial and business planning support, which led to access to finance for growth of several companies (some companies increased turnover by 3 or 4-fold during the project period). Key lessons learnt included: (i) the need for careful selection criteria to identify winning SMEs and the support they needed to succeed (ii) the importance of grant funding to drive innovation in the sector (iii) the critical need for grant funding to address global market access and non-tariff barriers to enable significant growth (iv) the importance of good financial and business planning, and how that leads to access to private sector finance for growth and (v) and the need for coordination and coherence in funding mechanisms in the sector.

In 2014 a mid-term evaluation was undertaken by the *Forschungsinstitut für biologischen Landbau FiBL/Frick* applying OECD DAC criteria. The report recommended that SECO invest in a second phase, and in subsequent dialogue SECO expressed willingness to support the regional biotrade sector in a way that had an impact across the sector and by focussing on the strengths of South Africa.

Improving policy builds on and scales up the support which the ABS Initiative is providing since more than a decade to the DEA for improving and streamlining the national regulatory ABS framework in line with the provisions of the Nagoya Protocol on ABS. The recently signed Letter of Intent between the ABS Initiative and the DEA is putting this collaboration into the context of the South African BES. The scope of collaboration encompasses four clusters:

- (1) Improving and streamlining the South African ABS regulatory system;
- (2) Identifying value chains at various stages of ABS compliance and support South Africa in making them fully compliant and functional;
- (3) Participation of indigenous peoples and local communities (IPLCs);
- (4) Development and amendment of tools and trainings for communication, education and public awareness (CEPA);

The intervention strategy of the project contributes directly (national / sub-regional level) and indirectly (continental / global) to attaining the objectives that the ABS Initiative has set for its support in Africa at different levels of its intervention logic:

At national level: The project enables the ABS initiative to substantially up-scale support activities which have been agreed in a Letter of Intent with the DEA. With its proposed elements on technical assistance, co-funding support and policy dialogue / enabling environments the project will enhance and complement the current national support activities considerably, being in line with the three core processes and the agreed outcomes and outputs as defined in the ABS Initiative's Programme Document 2015-2020 (see Annex C:).

At subregional level: As many biological and genetic resources are found in more than one country, and value chains are often transboundary, the project will not only benefit South Africa itself but also neighbouring countries of the southern African region (i.e. cooperation countries of the ABS Initiative). Activities may include, where appropriate, e.g. technical capacity building to stakeholder groups such as SMEs, and BSOs that are involved in supply chains linked to South Africa and supporting the harmonisation of regulatory ABS frameworks. The involvement of the SADC Secretariat, being also partner of the ABS Initiative, may play a key role in the subregional policy dialogue on ABS compliant value chains.

At African level: The ABS Initiative has been supporting the development and application of the *African Union Strategic and Practical Guidelines on the Harmonized Implementation of the Nagoya Protocol*. Amongst other things the guidelines are calling for experience exchange and scaling up of national best practices. South Africa is the most advanced African country with respect to the implementation of ABS and gained also most economical and political experiences with respect to biodiversity based value chains. Learning from the project will directly feed into the knowledge management of the ABS Initiative and as such in the Africa-wide ABS capacity development processes.



“Out of Africa”: Being appointed by the Secretariat of the CBD as permanent member in the Informal Advisory Committee on ABS Capacity Building and Development, the Initiative will share methodologies, approaches and success factors deriving from the project in a more aggregated form at global level. In this context, experiences obtained from South Africa – as a megadiverse country with an emerging economy and substantial domestic / international market – are of particular value. Via the biannual General Assembly and the secretariat of the ABS Initiative itself, information transfer to the Caribbean and Pacific region is warranted. Further knowledge exchange with relevant international organisations, such as with UNCTAD BioTrade will take place in pre-defined formats.

4. Project Description

4.1 Technical assistance to South(ern) African ABS compliant biotrade value chains (Component 1)

Sub-component 1.1: Market access and development

The main purpose in this field of intervention is to enable market access, **at a sector level**, through addressing global / high impact non-tariff barriers such as Novel Foods Regulations in the EU, REACH for new chemical entities in the EU, New Dietary Ingredients and Generally Recognized as Safe through FDA in the USA. These regulatory barriers are typically too complex and expensive for individual SMEs and so this sub-component will be driven by project management who will work with industry and specialists to identify and address high-impact candidates which open significant opportunities for the sector and be based on the species targeted by DEA/DST/BioPANZA (see Annex D:). Institutions such as CSIR Biosciences and global regulatory experts would be contracted to carry out the work within a closely collaborating team.

This “market access and development” sub-component refers to these biotrade-specific non-tariff barriers and does not refer to “export promotion” or “export development” which incorporates aspects wider than non-tariff barriers. Export promotion will be the role of sector organisations, the DTI, and SMEs.

The selection of product categories to target for new market access and development is linked to the process of selection of high-impact candidates. Additionally, this component will also support the preparation of up-to-date studies of market trends in key sectors such as natural and organic cosmetics, foods and beverages, herbal medicines and dietary supplements. Here the project will collaborate with SIPPO in the preparation of selected market briefs. These market briefs will also have significant value for and contribute to sub-component 1.3 below.

In implementing sub-component 1.1, and generating the related outputs, the following activities are planned:

- Contract experts to prepare/supply market reports and briefs with analysis relevant to the biotrade sector;
- Present findings to key stakeholders;
- Identify and contract regulatory experts to prepare market access dossiers which will incorporate comprehensive literature searches and analyses focused on issues relevant to safety, toxicity and chemical composition; product and process development trials, and setting product specification and “standard operating procedures” which will require intensive exchange between the relevant research institutions (for example, CSIR BIDC), regulatory experts(s) and participating SMEs, compilation of a dossier in the format required by the regulator and comprising the required data, presentation of the dossier to the relevant regulatory authority, and subsequent dialogue to address any concerns or data requests until approval is attained.
- Facilitate technical dialogue between potential users of the dossiers (SMEs) and regulatory experts;



- Work with sector organisations and experts for analysing, contextualising and communicating/presenting findings to key stakeholders; and
- Organise and report on workshops.

Sub-component 1.2: Supporting the role of IPLCs in biotrade value chains

The purpose in this field of intervention is to support IPLCs to be empowered and effective participants in selected biotrade value chain, and to be in a position to partner with industry. Support will be provided through specialist organisations and experts to holders of aTK, IPLCs, small-scale farmers, cooperatives, other raw material producers and SMEs meeting the criteria for BEE and sector transformation. Candidates will be identified on the basis of the value chains selected, and the SMEs involved, and on priorities identified through, for example, the Bioprospecting Forum and BioPANZA. These candidates include the Traditional Healers Organisation (THO), Cape Bush Doctors, and the South African San Council, and can be supported by organisations such as Natural Justice, and other experts in community engagement and business development.

In order to contribute to achieving *Outcome 1*, it will be necessary to assess suitable IPLCs and their associated traditional knowledge in relation to market demand and commercialisation potential and select those with high-impact potentials. Training materials and strategies for specific IPLCs will need to be prepared and delivered through workshops and training meetings. The intention is to support IPLCs to have a stronger role in reaching ABS agreements with industry. This will in turn also contribute to addressing a stated need of industry who often are willing to engage IPLCs in benefit-sharing agreements but who don't have the expertise or resources to identify the right partners and carry out the negotiations without bias.

In implementing sub-component 1.2, and generating the related outputs, the following activities are planned:

- Conceptualise and implement dialogue forums and develop assessment of IPLCs and assess potential impact of selected value chains;
- Identify and contract experts to prepare materials and strategies including preparation of IPR guidelines and a basic learning tool for dissemination to IPLCs;
- Comment on drafts for ABS agreements;
- Implement negotiation and contract trainings for relevant stakeholders including elaboration of patent assessments of relevance to the selected value chains and IPLCs;
- Identify and financially support NGOs and other partners for competence promotion of IPLCs; and
- Conceptualise, implement and finance workshops and trainings for IPLC representatives, where applicable in cooperation with SCBD, the Treaty Secretariat and/or other relevant actors.

Sub-component 1.3: Business planning support to SMEs

The main purpose in this field of intervention is to enable more SMEs in the biotrade sector to become investment ready and be in a position to better access financial support to grow their businesses. The project will provide technical assistance to ABS compliant SMEs **through business support organisations, associations and consultants/experts.**

This technical assistance can include financial and business planning, strategy development, and support to preparation of funding proposals. Sources of financial support to be targeted can include government incentive schemes, this project's innovation facility, loan and equity investment by development finance institutions such as the IDC, impact investors, and other private sector investors and financial institutions.

The project will actively liaise between IDC, other financial institutions and potential investors seeking to reduce risks and perceptions of risk in the biotrade sector, and to better understand the potential



of the sector. It is also the intention to support the development of a stronger portfolio of investment ready candidates (SMEs whose proposals and business plans meet the standards and criteria for consideration by funders and financiers such as IDC).

In implementing sub-component 1.3, and generating the related outputs, the following activities are planned:

- Identify all key stakeholders;
- Organise, finance and report on assessment workshops;
- Contract and finance BSOs/sector organisations and experts to carry out detailed assessments and service packages including support to SMEs in the evaluation of their IPR options and constraints;
- Facilitate access to market information and sector know-how including global ABS trends and regulations and provide to service providers; and
- Manage and coordinate process, review results, and prepare reports.

4.2 Financial assistance through the innovation facility (Component 2)

The main purpose of this component is to facilitate grant funding for SMEs and their support organisations in the biotrade sector to support innovation and growth in coherence with other incentive schemes. The project will therefore establish an innovation facility, managed by the project, and with expertise and governance provided by an investment committee.

The facility will address the current needs of the southern African biotrade sector, specifically the bottlenecks and difficulties experienced by biotrade SMEs, in particular, the lack of dedicated support for the biotrade sector, and those issues already identified by DPME (lack of coherence between government departments, lack of angel or other finance to complete the innovation through to commercialisation phases). The facility will provide grant funding and will be open to all SMEs in the biotrade sector who are either already ABS compliant or on target to become ABS compliant within a reasonable period of time. The facility will also be open to sector organisations such as associations, councils and incubators servicing specific and identified ABS compliant SMEs in the sector.

For the design and set-up of the facility the ABS initiative will draw from the rich in-house experience of German development co-operation supporting development oriented private sector activities. Since 1999 within the DeveloPPP.de programme GIZ, DEG and Sequa supported worldwide more than 1,500 projects with the private sector – of which almost 350 projects were implemented in Africa. So far, based on a quarterly competition and selection process private sector project proposals have been supported with more than EUR 300 Mio. of public co-financing globally.

Additionally, good practices and lessons learnt with respect to financial and further innovation support instruments for SME's implied in biodiversity based value chains will feed into this component. Here in particular, building up on the experiences from the GIZ / SECO PeruBioDiverso project (integrated PPPs / business start-up facility) will be relevant. These include amongst others: the value added of implying applied science in order to attain innovative proposals, the necessity to appoint skilled project staff being able to assess/support the SME project with respect to technical and non-tariff trade barriers (compliance), to have a critical mass of SME that are able to respond to the selection criteria for funding and that besides a focus on ABS / BioTrade issues also rather "classical" themes such as administration, finance, marketing, business models etc. For further details see also the brochure "Navegador para incubadoras verdes"⁷.

⁷ PerúBioInnova, 2017. Navegador para incubadoras verdes. Guía para la incubación de emprendimientos basados en la biodiversidad. Accessed 27 October 2017 at <http://www.proambiente.org.pe/umwelt/recursos/publicaciones/Navegador-para-incubadoras-verdes.pdf>



Potential risks for this component and appropriate mitigation measures are tabled below:

Risk	Mitigation
SMEs misspend grant funding	GIZ financing agreements with SMEs contain strong financial reporting criteria.
Projects overrun / are not delivered on schedule	Selection criteria include SME project completion prospects and financing agreements with SMEs define timelines; expertise in project management to be provided by GIZ.
Projects and SMEs do not deliver the required results	Criteria to be developed during the inception phase will be subject to expert opinion and approval of SECO , mid-term evaluation allowing for adjustment of criteria or design as might be required; project management and investment committee experience.

Through this facility the project seeks to build on the Enterprise Development Grants methodology of the SECO Project Biotrade South Africa (implemented by PhytoTrade Africa) from 2012 to 2015 whilst:

- Improving governance and transparency by establishing an “investment committee” comprising project management and relevant external parties – here proposed candidates could be selected from DEA, DTI, IDC, scientific/academic institutions, project management, GIZ and SECO; potential roles and responsibilities are tabulated below;
- Ensuring better coherence with and possible co-funding of biotrade SMEs by relevant government incentive schemes through design intended specifically to support innovation and growth of the biotrade sector; and
- Encouraging other funders and investors to take specific interest in the biotrade sector.

Project Management	Investment Committee
Preparing decisions of the investment committee: • Evaluates SME proposals against established criteria. • Prepares a ranked list of SME proposals as basis for decision making of the investment committee • Executes decisions of the investment committee by entering into financing agreements with selected SMEs	
Decision making of the investment committee: • Invites for and prepares meetings of the investment committee. • Presents SME proposals including substantiated recommendations for approval. • Prepares meeting reports.	
Executing decisions of the investment committee: • Initiates GIZ financing agreements with selected SMEs. • Monitors implementation of agreed projects by SMEs. • Prepares report for investment committee.	
	• Members present their specific assessments of the SME proposals. • Members discuss and agree (modalities will be established during the inception phase) which SME proposals will be supported.

Membership of the investment committee will be unpaid, however, where necessary a modest allowance and external costs such as travel and accommodation will be covered by the project. Much of the work of the committee is planned to be done by electronic and telephonic communication, and the “heavy lifting” is to be done by project management. The key role of the committee is to ensure that the agreed principles and objectives of the facility are being complied with, and that the selection



criteria and scoring of applicants is carried out objectively, and that the allocation of grants properly furthers the objectives of the project.

The features of the facility will be coherent with relevant incentive schemes of the South African government. Thus, applicants will be required to demonstrate how their proposals to invest the funds from the facility are synergistic with their use of government incentive schemes – and potentially, how these funds constitute co-funding to the facility’s resources. In return, where government schemes require co-funding, SMEs could use the facility’s grants to match these obligations. Additionally, applicants will also be required to demonstrate how they have committed their own resources towards achieving the objectives of other proposals and thereby demonstrate financial, technical and human resources engagement. As such the facility will not, at least initially, be a joint fund with formal agreements between the project and government departments but rather a **complementing support** scheme.

The scale of funding, and the number of grants, will be defined in the facility design phase. However, this could be indicatively in the range of an average of CHF 40,000/grant, for 12 proposals, executed in two phases (potentially 24 grants in total). An upper limited of CHF 120,000 is seen as appropriate as long as the funding is matched, reaches multiple SMEs, and a minimum of 24 grants in total can be supported by the facility.

These “projects”, based on the terms established through the grant agreements, will be implemented by the SMEs (and potentially in cooperation with their support organisations) and the SMEs will be responsible for sub-contracting experts such as specialist laboratories or consultants as might be required. This is therefore different to the technical assistance proposed in components 1.1, 1.2 and 1.3 whereby the project management is responsible for contracting in expertise.

Annex E: provides the following:

- A table showing selected incentive schemes of South African government agencies (DTI, DSBD, SEDA and The Jobs Fund) with information on their objectives, eligibility criteria, and offering/benefits – indicating that there are no specific funds for the biotrade sector, but that some incentive schemes could be coherent with the sector;
- Information of the Technology Innovation Agency showing potential for support to the biotrade sector, but presenting complexity for SME; and
- Diagrams showing funding instruments for innovation and technology, and funding sources for concept phase, development and pre-commercialization, and commercialization phase, and from which it is possible to see potential problems with “stop-start” as companies try to navigate across the innovation through to commercialization landscape.

The incentive schemes are subject to short-notice changes to terms and conditions, and also cancellation (such as the DTI’s Incubator Support Programme). Additionally, meaningful discussion and progress on collaboration modalities can best be made once this project has secured funding. It is therefore difficult to define the exact schemes the project can collaborate with prior to the inception phase. However, the table below reflects high-priority candidates and examples of the type of coordination:

Government Incentive Scheme	Example of potential coordination
DTI’s Export Marketing & Investment Assistance Scheme (EMIA)	Strategic planning with CECOSA, DTI, SIPPO and CBI with SMEs in the biotrade sector to better promote biotrade, target trade events, buyer missions, and other marketing activities with the plans and strategies for the new market territories to be opened up with Component 1.1, and the products and technologies to be developed through Component 2.2. Some of the grants allocated to SMEs could be earmarked to support CECOSA to run a country pavilion, for example.



Government Incentive Scheme	Example of potential coordination
DTI's Sector Specific Assistance Scheme (SSAS)	Work with support organisations, councils, and associations to develop proposals that leverage SSAS and make use of the product and technology development opportunities through the facility / Component 2.2, and aligned with new territories / market opportunities to be accessed through Component 1.1.
SEDA's Technology Programme (STP)	As above focused on technology transfer, enterprise development and process and quality development/industry standards.
TIA's Technology Development Fund and Commercialisation Support Fund	Support SMEs to access funding from either the Development Fund, or the Commercialisation Support Fund, and provide complimentary support so that the SME can have a more seamless process moving through the different "technology readiness levels" TRL 3 through to TRL 9.

Sub-component 2.1: Facility design and set-up

In setting up the facility the following activities are planned [6 months]:

- Stakeholder dialogue on facility design: Dialogue with key informants including sector organisations, IDC and government departments with relevant incentive schemes to understand the up-to-date needs of the sector, current and future gaps in funding schemes, and collaboration possibilities;
- Preparation by the project management of a document describing the facility design including a paper on scope of planned intervention, proposed funding amounts, targets, M&E requirements, objectives, principles and criteria for review, assessment and selection of proposals, an objective score card against which selection of proposals will be assessed – including how SME "skin in the game" will be assessed, and how the overall sustainability of the SME's business is supported by the grant, draft terms of reference for the investment committee, draft of confidentiality agreements and "conflict of interest" statements to be signed by investment committee members, and presentation of document(s) to SECO for approval;
- Identification and appointment of investment committee members.

Sub-component 2.2: Operation of facility [36 months]

In the first phase of grants SMEs with already existing capacities and skills will be targeted ("low hanging fruits") to generate early successes. In the subsequent phase(s) the project can increasingly seek to support emerging SMEs and those in a position to benefit from the outputs of project component one – such as the new market access opportunities, agreements between IPLCs and SMEs, and the improved investment readiness of the SMEs.

Examples of the types of activities / projects the facility could support include:

- Studies exploring the biological activity of a biotrade product (or a group of products) to add value to the marketing proposition of a selected value chain, and bring effect to aTK;
- Studies to understand national and regional variation in key phytochemical compounds in selected biotrade ingredients in a way that supports SMEs to define their product specifications, and to innovate in product development;
- Development and commercialisation of more competitive processing technologies for key biotrade ingredients, and supporting SMEs to adopt the technologies, including IPR such as trademarks and patents, setting up and implementing the required operating procedures, and establish the required product documentation;
- Identifying and solving key quality control and assurance issues for actors along selected value chains, and supporting the implementation of higher quality practices and traceability;



- Preparation of marketing and promotional materials to support market development, industry awareness and consumer uptake, including market differentiation through promotion of industry best practices such as UNCTAD's BioTrade Principles or UEBT Ethical BioTrade Standards; and
- Support to the launch of products to new markets and territories including product testing, packaging and labelling requirements, and customer/agent/distributor identification and acquisition.

Further examples can be gleaned from the final report on the SECO Project Biotrade South Africa. The facility will require applicants to set out clear targets in their proposals. These targets must be aligned with the criteria which will be established and agreed in the facility set-up. These targets/criteria may include:

- Job creations including at seasonal primary production level through to permanent skilled jobs;
- Increase in business turnover within specified timeframes;
- Evidence of sustainable practices and traceability;
- Compliance with ABS requirements across transboundary supply chains;
- Localisation of value-addition and potential of IPRs including patents;
- Skills development and training; and
- Other data determined during the establishment of the M&E baseline and system.

Additionally, project management and the investment committee will be required to exercise judgement as to the sustainability of the intervention with the SMEs. This will require attention to wider aspects of the SMEs business which details will be required in their grant application proposals (see section 4.5 – Sustainability in the sector beyond the project).

In the implementation of sub-component 2.2, the following activities are planned:

1st call for proposals, assessment, selection, contracting SMEs [4 months]:

- Issue of call for proposals to sector by project management;
- Review and assessment of proposals by project management who will prepare a report with recommendations for selection with justifications based on the established criteria and score card results;
- Review of report by investment committee who can either agree to the recommendations by project management, or request further information and clarification; and
- Notification by project management to applicants of the result of the assessment, and preparation of contracts with selected SMEs / service providers.

Implementation by SMEs, including reporting, phase 1 [12 months]:

- Disbursement of grants by project management to SMEs/service providers;
- Implementation of agreed activities by SMEs/service providers;
- Review of progress reports from SMEs by project management, remedial actions where necessary; and
- Preparation of report on activities by SMEs/service providers and submission to project management who will review and request further information as might be required, and close out of contract.

Review of results, modifications to facility model [2 months]:

- Preparation of a review of the results, with analysis of successes and failures, and recommendations of any changes to the facility model, and presentation to the investment committee
- Investment committee reviews report and recommendations, engages in dialogue with project management, and reach agreement on any modifications, and these are further discussed and agreed with the PSC.



2nd call for proposals, assessment, selection, contracts [3 months]:

- Issue of call for proposals, incorporating modifications as agreed above, to sector by project management;
- Review and assessment of proposals by project management who will prepare a report with recommendations for selection with justifications based on the established criteria and score card results;
- Review of report by investment committee who can either agree to the recommendations by project management, or request further information and clarification; and
- Notification by project management to applicants of the result of the assessment, and preparation of contracts with selected SMEs / service providers.

Implementation by SMEs, including reporting, phase 2 [12 months]:

- Disbursement of grants by project management to SMEs/service providers;
- Implementation of agreed activities by SMEs/service providers;
- Review of progress reports from SMEs by project management, remedial actions where necessary; and
- Preparation of report on activities by SMEs/service providers and submission to project management who will review and request further information as might be required, and close out of contract.

Review of results, preparation of facility report [3 months]:

- Preparation of a review of the results, with analysis of successes and failures, and recommendations for the future of the facility, and presentation to the investment committee
- Investment committee reviews report and recommendations, engages in dialogue with project management, and agree on recommendation for the future of the facility; and
- Project management prepares report of Component 2 for inclusion in project final report.

A timeline summary for Component 2 in the context of project implementation phases is tabled below:

Main activity	Timeline in months						
<i>Inception phase:</i> Stakeholder dialogue, facility design and set-up	6						
<i>Implementation phase:</i> 1 st call for proposals, assessment, selection, contracts		4					
Implementation by SMEs, including reporting, phase 1			12				
Review of results, modifications to facility model				2			
2 nd call for proposals, assessment, selection, contracts					3		
Implementation by SMEs, including reporting, phase 2						12	
<i>Closing phase:</i> Review of results, preparation of facility report							3
Total							42

4.3 Policy dialogue and enabling environment (Component 3)

Sub-component 3.1: Policy improvement through NEMBA and BABS amendments

The main purpose of this component is to support the NEMBA and BABS amendment process so that the regulations are more suitable for the growth of the sector, and more efficient.

In order to facilitate biotrade as well as research & development on genetic resources – in line with the Biodiversity Economy strategy – and to make the regulatory ABS framework compliant with the provisions of the Nagoya Protocol on ABS, the South African government is currently embarked on a process for the revision of NEMBA and BABS. In line with the recently signed Letter of Intent on the



support of in this regard to the DEA the project enables the ABS Initiative to significantly broaden and scale-up the intensity of its support to DESA and other relevant stakeholders.

Further matters identified by the DEA established Bioprospecting Forum will be consulted with relevant stakeholders and concepts elaborated in close collaboration with DEA to improve efficiency and effectiveness of the regulatory framework. Topics of relevance include:

- Obtaining prior informed consent (PIC) of IPLCs for utilising aTK
- Clarifying the scope of the regulatory ABS framework, i.e. genetic resources / biological resources / indigenous plants
- Functioning benefit-sharing system with regards to *inter alia* shared resources and shared knowledge as well as the contribution to livelihoods of rural populations and biodiversity conservation

Building on conceptual and practical work of the ABS Initiative in e.g. The Bahamas and Kenya, establishing IT-based unified permitting systems the project will support DEA in developing a streamlined permitting system addressing horizontal (e.g. research, phytosanitary and export permits) and vertical (national, provincial and local: collection permits, PIC documentation) efficiency and effectiveness.

In implementing sub-component 3.1, and generating the related outputs, the following activities are planned:

- Finalise technical and financial support packages for and with partner institutions for the implementation of measures for the national and local implementation of ABS;
- Analyse and present interfaces with other sectors, such as agriculture, forestry, fisheries, research etc.;
- Analyse and present value chain models in different business sector; and
- Conceptualise, implement and finance workshops, trainings and discussion fora at national and (sub-) regional level, where applicable in cooperation with SCBD, the Treaty Secretariat and/or other relevant actors.

Sub-component 3.2: Industry / sector organisation best practices and alignment

This project strives toward mobilizing large numbers of SMEs towards sustainable practices. Thus, adhering to the UNCTAD BioTrade principles, the UEBT Ethical BioTrade Standard and/or more specific standards (e.g. FairWild, Organic) will be encouraged and may, where considered necessary for accessing particular target markets, be supported by the project.

The specific purpose of this component however is to enable better alignment between industry policy and practice with ABS objectives and other government policies such as IPAP and NDP.

It is important to use the collective resources of the sector, through sector organisations, councils, associations and BSOs, to generate momentum towards the achievement of the project impact. This momentum needs to be in alignment with national development plans and policies to gain effect. This component will provide support to sector organisations to define and implement their policies in relation to legislation and regulations and key aspects of relevant national objectives. In particular the Biodiversity Economy Strategy of the DEA is relevant, and so too the black economic empowerment and industrial development policies and plans of DTI.

In 2016, dialogue with the sector including government departments, holders of traditional knowledge, and the private sector and their sector organisations – has identified key areas where the adoption of and commitment to key policies by industry can make a meaningful and necessary contribution to a collective sense of national objective for the sector. The key elements noted are:

- Transformation of the value chains
- Sustainability of harvesting, production
- Local value addition and job creation
- Compliance with local and global regulations



The intention will be to mobilise large numbers of SMEs towards sustainable practices. This can include designing and establishing certification or verifiable standards and codes ideally in line with the UNCTAD BioTrade principles and/or the UEBT Ethical BioTrade Standard.

This sub-component may include provision of training to the SIPPO BSO's on aspects of the Nagoya Protocol, ABS and the biotrade sector.

In implementing sub-component 3.2, and generating the related outputs, the following activities are planned:

- Participate in relevant fora and facilitate understanding of project plans with sector organisations;
- Prepare and finance workshops/meeting;
- Support understanding of IPRs in relation to local value addition and compliance with ABS and other regulatory requirements, and how this could be incorporated in best practices;
- Facilitate liaison between ABS regulators and sector organisations / SMEs; and
- Provide feedback and expertise and possible funding support to organisations developing best practices.

Sub-component 3.3: Knowledge management and sharing

The main purpose of this component is to document and share lessons learned and best practices at regional and global scale. Knowledge management instruments as well as CEPA tools established by the ABS Initiative will be used, as appropriate, to raise awareness and inform relevant stakeholders – in South(ern) Africa as well as potential users of South African natural products in Europe, including Switzerland. Experiences and lessons learned will be made available at the established (sub-)regional exchange fora of the ABS Initiative, such as ABS workshops for Anglophone African countries, Pan-African ABS workshops, South-South exchange and business dialogue fora. Beside the DEA organized **Biodiversity Economy Indaba**, which will be in 2018 open for SADC member state participation, specific exchange formats might be created for southern African countries to up-scale experiences to relevant bodies at SADC in line with the intention of the South African BES to further (sub-)regional BioTrade coordination.

Experiences and lessons learned will among others contribute to and shared with the planned, SECO funded UNCTAD BioTrade collaboration platform including its Stakeholders Steering Committee. Furthermore, the Initiative will share methodologies, approaches and success factors deriving from the project in a more aggregated form at global level, e.g. through the UNCTAD BioTrade Congresses, the Informal Advisory Committee on ABS Capacity Building and Development of the CBD and the biannual General Assembly of the ABS Initiative. A further key collaboration partner for disseminating the findings of the project will be the African Union Commission – framed by a Letter of Intent with the ABS Initiative on knowledge sharing and capacity development for the African region.

Particular attention will also be paid to the management of confidential commercial information.

In implementing sub-component 3.3, and generating the related outputs, the following activities are planned:

- Develop the project web space at the ABS Initiative's website (www.abs-initiative.info) as knowledge management platform on ABS compliant biotrade;
- Develop appropriate training and capacity development formats and curricula for the relevant stakeholder groups;
- Develop generic awareness raising material to facilitate the production of such materials in different languages; and
- Develop and produce manuals, guidelines and checklists etc. for developing regulatory ABS frameworks and negotiating ABS agreements supportive for the biotrade sector.



Case studies and best practices deriving from this component will feature in the communication and outreach activities to position the project in South(ern) Africa towards media, project partners and stakeholders (see also chapter 5.1).

4.4 Identification of high-impact value chains

In 2016 the DEA, in collaboration with other institutions through the “Bioprospecting Laboratory” and BioPANZA, identified seven species for sustainable wild harvesting, and 25 species for cultivation – with some overlap (see Annex D:).

These species will form the basis of an assessment leading to the selection of value chains to be prioritised by the project. The assessment process will involve the following considerations:

- Market potential of products that are/can be derived from the species, including potential of impact through addressing targeted non-tariff barriers/market access regulations;
- The potential of processing and manufacturing of the products to create value adding opportunities and associated jobs throughout the value chain;
- Positive associated traditional knowledge and prospect of effective engagement with relevant IPLCs;
- Feedback from SMEs and their support organisations; and
- Species and value chains that have support from other funded projects and/or strong support organisations/councils (for example the GEF 6/UNDP project which plans to support communities and supply chain development) which could lead to mutually beneficial arrangements whereby resources are focussed on different parts of the value chain to ensure the entire value chain is given the necessary resources to reach commercial viability and sustainability.

The project **might through this process identify other species** with high impact potential. These could be included in the project if addressing them is coherent with the National Biodiversity Economy Strategy and, at regional level, with the SADC Biodiversity Strategy.

During the inception phase a review of scientific literature and commercial information relevant to the species will be carried out. Findings will be used in workshops and other engagement processes with relevant parties including SMEs and their support organisations as well as market, intellectual property and regulatory experts. The purpose of this process is to arrive at a coherent selection of species with agreed potential of impact to achieve the project objectives through ensuring synergies, building momentum and achieving critical thresholds of resources for effective value chain development.

Potential species and value chains that could be supported by the project and the possible rationale for selection, are tabled below:

Value chain/product	Rationale for selection
Marula fruit products for food/beverage	• Abundance across region supports sustainable harvesting • Large number of potential beneficiaries and rural jobs, particularly women • Traditional knowledge appears to have commercial value supported by interesting chemistry for market trends • Relatively simple non-tariff barrier could be addressed within budget to open up significant new market in the EU • Technology in SA could add value at SME level
Marula oil for new applications such as food and dietary supplements	• Abundance across region supports sustainable harvesting • Large number of potential beneficiaries and rural jobs, particularly women • Builds on existing value chains (currently for the cosmetics sector) • New regulated market in the EU can be achieved at relatively low cost
Novel devil’s claw products	• Dove-tails with GEF 6 project investments into sustainable supply chains including cultivation



Value chain/product	Rationale for selection
	• Large number of potential beneficiaries in very arid areas with limited other opportunities such as Northern Cape and Kalahari areas (with test case issues for transboundary resources) • Under-exploited traditional knowledge supports new product category • Non-tariff barriers could be addressed to enable new market access
Novel or improved products from <i>Aloe ferox</i>	• Dove-tails with GEF 6 project investments into sustainable supply chains including cultivation • Large numbers of potential beneficiaries in high-priority areas in Eastern Cape • Prospects of good ABS agreements • Initial assessment suggests targeted dossiers addressing safety and toxicity issues could address market development constraints

Issues to be considered in the selection of countries are included in the table below:

Country	Possible value chain	Other rationale
South Africa	as per Annex E	Already agreed
Namibia	marula, devil's claw, bulbine, hoodia, sceletium, marama, sour plum	GIZ and ABS Initiative active, momentum with regulations, active SMEs
Zimbabwe	marula, baobab, mafura, sour plum	Active SMEs
Mozambique	mafura, baobab, marula, sour plum	Active SMEs, GIZ projects
Malawi	baobab	Active SMEs, GIZ and ABS Initiative active
Swaziland	marula, mafura, sour plum	Active SMEs
Botswana	devil's claw, marama, marula, sour plum	Active SMEs
Zambia	devil's claw, marula, baobab	Active SMEs, GIZ projects
Madagascar	marula, baobab	Active SMEs, GIZ and ABS Initiative active, high industry interest

4.5 Sustainability in the sector beyond the project

Environmental and social sustainability

In the project environmental and social sustainability is underpinned by the principles of the CBD, the Nagoya Protocol, and how these objectives are approached and translated into practice through the legislation and ABS regulations of countries in southern African. The project will provide technical and financial assistance to those actors in the value chains who demonstrate compliance to ABS and to industry best practices.

Business sustainability of SMEs in the biotrade sector will be enhanced through the following means:

- Identifying and opening up **new market opportunities** in a way that benefits multiple SMEs;
- Enabling **strong partnerships with IPLCs** and other key actors in selected biotrade value chains;
- Providing financial and business planning with the objective of increasing investment readiness and the related ability to then push for **SMEs to move away from grant funding** and to raise capital from financial institutions and the private sector;
- Focusing resources on to **support for SMEs to innovate** and grow; and
- Supporting the development of **regulations that are effective and workable** for SMEs and other participants in biotrade value chains



At a meso level sustainability will be enhanced through provision of resources to sector support organisations in order for them to support their SMEs. However, support to build the capacities and sustainability of sector organisations and associations is outside the direct scope of this project.

Skills development in the biotrade sector

Training and skills development is critical to the development of a sector, and is fundamental to ensuring sustainability beyond the life of a project. Skills development is to be achieved in this project through the following:

- Developing and disseminating global market access/non-tariff barrier knowhow to SMEs and sector organisation (a key skill that is largely absent in the region),
- Supporting IPLC to develop strategies and benefit-sharing agreements from a position of strength;
- Imparting financial and business planning skills to SMEs;
- Awareness raising of sector organisations and BSOs in ABS issues in partnership with DEA; and
- Exchanging biotrade knowledge at a national, regional and global level through, for example, the UNCTAD BioTrade platform.

The above is coherent with the goal of SECO's interventions on skills development, in particular to "support skills up-grading, facilitating the adoption of new technical and/or organizational adaptations within a specific sector", and "facilitate continuous, advanced and specialized training that improves quality and/or promotes higher productivity and competitiveness in a particular sector". At a company level SECO's interventions provide "training components within specific value chain interventions in export sectors", and at a sector level it provides support to "sector-specific SME development".

Exit strategy

The biotrade sector is relatively new with many emerging and underdeveloped value chains. Many of the SMEs in the sector are very small and profitability is hampered by multiple factors typical of nascent sectors. As the biotrade sector has significant potential for rural job creation and empowerment, sustainable and efficient use of natural resources, and can be directly connected to growing markets for natural and organic products in demand from global consumers, kick-off funding and subsidies can be justified. However, it is important to design projects and interventions that do not build in donor reliance.

Sectors that do not require public sector funding and other subsidies usually have the following features:

- Mature and well-established SMEs that are investment ready, and with significant participation of large multinationals;
- Specific and dedicated sources of specialised finance for start-ups, innovation, and growth;
- Well established, workable regulations for the sector;
- Dialogue and lobbying fora for effectively connecting the industry to policy makers;
- Significant numbers of well-established value chains;
- Well defined standards across the industry, including products, processes, and technologies; and
- Industry and consumer understanding and acceptance of the products from the sector.

This project seeks specifically to contribute to conditions wherein the sector sustainably develops without continuous donor intervention and subsidies by supporting the biotrade sector to achieve the above features.

Sustainability of individual businesses is also key to the exit strategy for the project. In the SECO Project Biotrade 2012-2015, 9 SMEs were supported directly with "Enterprise Development Grants", and another with technical assistance similar to what they could have accessed through a grant. A rapid, qualitative assessment of the sustainability of these interventions indicates that of the 10 SMEs:

- 4 are surviving and still in business;



- 2 are in business and growing; and
- 4 are making excellent progress and are growing significantly.

The lessons learned from this experience will be incorporated into the project, in particular in the decision making and execution of sub-component 1.3, and component 2.

When supporting businesses through incubators or through a grant making facility, the criteria for selecting participating SMEs is key to the survival and future performance – and hence business sustainability of the SMEs. The assessment process must therefore take into consideration:

- Business skills, management capacity, capability, dedication and commitment of entrepreneur(s);
- Sustainability and reliability of supply chain and inputs;
- Viability of the commercial product and market offering, and strength of “market pull”; and
- Financial status and ability to access finance.

Naturally this poses challenges to funder and project managers. If a 100% sustainability and success rate is required then only very well-established businesses will be eligible for support, and emerging SMEs, start-ups and those with strong potential for social and environmental impacts might not qualify. Therefore, assessment criteria in sub-component 1.3 and in component 2, will require that either (1) the SMEs fulfils the key elements, or (2) it is clear that the SME understands and has internalised the need to fulfil these elements, is committed to achieving these, and the financial assistance is appropriate and proportional to the risk involved.

Additionally, lessons learned and best practices in business incubation and grant funding to support innovation in SMEs will be employed by the project management. This includes consideration and mitigation of the risk of creating grant/donor dependency in SMEs.

With regard to the funding facility, there are three approaches underpinning the exit of SECO once the project has ended:

- To encourage other funders and government departments to take a specific interest in supporting continued innovation and growth of the biotrade sector perhaps through the establishment of a new dedicated incentive scheme for the sector (“crowding in funding to the biotrade sector”);
- Evolving or positioning the facility towards an “impact investment” approach whereby philanthropists could support technical assistance and high-risks aspects in a way that reduces risks for private for-profit investors to invest; and
- Promoting the biotrade sector, partly through exposure of the innovative products and technologies that will be delivered through the facility’s support, to industry and funders so that Public Private Partner models could be developed specifically for the biotrade sector.

5. Project Implementation and Management

The project is implemented by one South African long-term professional and one South African long-term part-time administrative support staff based at the GIZ country office and three ABS Initiative team members based at GIZ headquarters dedicating at least 10% of their time to the implementation of the project:

Position	Based in – time (%)	Other rationale
ABS Initiative manager	GIZ Head Quarter, Eschborn – 10%	Oversees project implementation ensuring alignment with ongoing support of the ABS Initiative to DEA and full integration of the project into ABS Initiative governance and reporting.
Project manager	GIZ Country Office, Pretoria – 100%	Managing and implementing the project activities in South(ern) Africa.



Position	Based in – time (%)	Other rationale
ABS Initiative communication and knowledge management expert	GIZ Head Quarter, Eschborn – 10%	Responsible for integrating a project webspace into the ABS Initiative website; supports selecting appropriate communication channels and designing target group specific messages at local, national, regional and international levels.
ABS Initiative finance officer	GIZ Head Quarter, Eschborn – 10%	Financial reporting.
Administrative support staff	GIZ Country Office, Pretoria – 50%	Contract management and additional support services

Project implementation is further supported by partner organisations (see chapter 5.1) and short-term experts.

5.1 Partners and collaborators

The project will be implemented with three categories of partners and collaborators including government, industry organisations and sector associations, communications companies, IPLC support organisations and international and regional organisations. The following table further describes the different partner categories and how coordination, collaboration and service provision will be managed by the project:

Category / Role	Definition and <i>modus operandi</i>
Strategic partner	Government partners whose continued engagement, funding support to the sector, policy direction and implementation has a critical effect on the project attaining its impact. → <i>Member of the Project Steering Committee. Constant exchange and alignment at strategic, policy and technical level based on Memoranda of Understanding (MoU) or Letters of Intent (LoI). Led by GIZ / ABS Initiative headquarters. Regular, at least semi-annually meetings and ad hoc meetings if required.</i>
Collaborating partner	Key sector organisation with own resources, and with whom collaboration will facilitate amplification and scale-up of the project's outcomes; may be contracted to implement selected activities. → <i>Collaboration based on aligned planning at output / activity level, led by national staff of the project. Where appropriate mutual participation in technical committee and /or steering committee (no decision function). MoU's may be established if of help for coordination.</i>
Implementation partner	Biotrade sector specialists (organizations) who will implement project activities and generate selected project outputs based on a financing/grant agreements or contracts with the project. → <i>Service provision relationship to the project, generally with non-profit organisations that aim at attaining the same/comparable objectives as the project. Terms and conditions to be defined in contracts or grant agreements.</i>

As stated above (see chapter 2.3.1) the South African biotrade and natural products sector is embedded in several policy and implementation mandates of line governmental departments. In this regard, central norm-setting and strategic stake holding players are the Department of Trade and Industry and the Department of Environmental Affairs. A close relationship with the Department of



Science and Technology – with respect to issues related to Traditional Knowledge will be accessed through BioPANZA

At a more operational level collaborative working relationship will be established with the South African Industrial Development Co-operation and the Swiss Import Promotion Programme which will ensure effective SME support all along the value chain.

In order to ensure coherence in planning and implementation the project will closely exchange (e.g. mutual attending of respective steering / management committees) with the two DEA executed GEF 6 projects (a) “Development of Value Chains for Products derived from Genetic Resources in Compliance with the Nagoya Protocol on Access and Benefit-sharing and the National Biodiversity Economy Strategy” (where the focus is broadly on supply chain development, whereas the ABS Compliant Biotrade project focusses more on product innovation, business support and market aspects) and (b) “Strengthening human resources, legal frameworks, and institutional capacities to implement the Nagoya Protocol” of which South Africa, amongst 20 other countries is also a beneficiary

A key industry platform the project is envisaging to collaborate with is the South African Bioprospecting Forum, convening multiple biotrade stakeholders providing a dialogue platform between IPLCs, the private sector, and policy makers/government. Further key harvesting, production or industry related institutions / associations the project will collaborate with in its implementation, may be identified in the inception phase of the project.

During the inception phase, as appropriate, more formal agreements will be developed with strategic and collaborating partners further defining exchange formats, roles, and responsibilities The following list of indicative partners, including implementation partners, provides an overview on potential roles in the context of this project:

Institution/organisation	Role: Strategic Partner
DEA (and DST/BioPANZA)	Supporting policy framework and biotrade sector development including Traditional Knowledge/ Indigenous Knowledge Systems
DTI	Supporting biotrade industry development through cosmetic sector, chemicals, pharmaceuticals sector knowledge and funding/incentives
Institution/organisation	Role: Collaborating partner
IDC	Guidance on investment readiness standards and criteria for new industry development, sector finance for SMEs
UNCTAD BioTrade	Global biotrade network, convening power
UNDP / GEF6	Sector cooperation
CBI	Market information services, natural products sector knowledge
CECOSA	Cosmetic market development and sector knowhow
Bioprospecting Forum	Facilitating dialogue between regulator, private sector, IPLCs and academia, including through Working Groups
SIPPO	Market information services, natural products sector knowledge
Institution/organisation	Role: Implementation partner
CSIR BIDC	Biomanufacturing, biotrade product processing skills and capacities, R&D and innovation services
PhytoTrade Africa	Regional biotrade expertise and network, value chain development, market access, sector services
UEBT	Global biotrade sector knowhow, private sector engagement
Proof Africa	Southern African communications expertise especially relevant to biotrade sector
Natural Justice	Capacity development, outreach and support services to IPLCs



In order to position the project in the South(ern) African actors and partners landscape a strong communication and outreach approach will be developed during the inception phase. This will support branding the project, sharpening its value-added profile and manage its narrative.

Additionally, to ensure a dissemination and scaling up of the findings of the project, lessons learnt and best practices will be shared, with (sub-)regional organisations (SADC, African Union Commission), and at global level with the Secretariat of the Convention on Biological Diversity (SCBD). In particular a regular and standing conceptual and practical mutual exchange on biotrade / BioTrade related issues, particularly with respect to ABS compliance in different national legal settings worldwide is foreseen with the UNCTAD BioTrade project acting as sounding board and amplifier to global level specifically to the negotiations of the African Continental Free Trade Area (CFTA).

5.2 Governance and Reporting

The regional scope of ABS implementation support activities of the ABS Initiative focuses on the African continent, but also comprises to a much smaller extend capacity development activities in the Caribbean and Pacific Region. Thus, a majority of past and current donors to the ABS Initiative (BMZ, Netherlands, France, Norway and Denmark) have allocated funds to supporting solely ABS related activities in Africa and are as such also only represented in the Regional Steering Committee for Africa, overseeing capacity development activities on this continent. Regional steering committees meet once a year to discuss and approve the yearly progress report covering all three regions, yearly work plans and budgets as well as other pending matters.

Information exchange between the regions is ensured by biannual meetings (General Assembly) of representatives of all three regional steering committees at Conferences of the Parties serving as Meetings of the Parties to the Nagoya Protocol.

The earmarked co-funding contribution of SECO requires specific considerations in order to ensure on the one hand full integration into the governance and results framework of the ABS Initiative and on the other hand allow for distinct planning, management and reporting without creating unreasonable and unnecessary administrative procedures. To this end the project related reporting requirements will be as much as possible synchronized with the ABS Initiative reporting.

In view of the regional governance structure of the ABS Initiative with three regional steering committees – one each for Africa, the Caribbean and the Pacific – and considering that the earmarked co-funding of SECO directly relates to the ABS Initiative's activities in South and southern Africa with indirect impacts to the pan-African and global levels, **SECO Bern will be represented in the Regional Steering Committee for Africa** of the ABS Initiative which meets every March to discuss and approve the respective yearly progress report and budgeted work plan for Africa. Draft documents are made available four weeks prior to the actual meeting.

The distinct logframe of the project “ABS Compliant Biotrade in South(ern) Africa” (see Annex B:) requires its own yearly planning, budgeting and reporting. For further advice in this regard, **a Project Steering Committee (PSC)** will be established **composed of representatives of SECO South Africa, DEA, DTI and other relevant partners**. After an initial meeting of the PSC in August 2018 to discuss and approve the inception report and the first budgeted work plan until 03/2019, the PSC will meet on a yearly basis in March to discuss the yearly budgeted project work plans and the yearly implementation report, which will be submitted four weeks prior to the actual meeting.

As demonstrated in Annex C: the subcomponents of the ABS compliant biotrade project match stringently the outputs of the results framework of the ABS Initiative. Consequently, the respective indicators of the ABS Initiative's results framework will benefit from the activities funded by the project. This implies that the quantification of the indicators for the ABS Initiative will need to be adjusted accordingly in order to reflect appropriately the co-funding contribution of SECO. A proposal in this regard will be presented to the Regional Steering Committee for Africa for decision at its next meeting in March 2018.



Relevant results, outcomes and impacts of the project will be integrated into the yearly progress report to the three regional steering committees of the ABS Initiative, i.e. the Joint Steering Committee, and reflected by the indicators of the ABS Initiative's results framework.

5.3 Timeline

The project is expected to start in February 2018 and will be implemented over 42 months including a 6-months inception phase and a 3-month closing phase:

Inception phase (02/2018-07/2018): The objective of the inception phase is to:

- Hire a South African long-term expert and support staff and to set up an operational project office in Pretoria;
- Engage and agree with relevant South African partners and stakeholders on the role and modalities of the grant/innovation facility;
- Prepare an Innovation Facility Operations Manual documenting roles and procedures of the investment committee and the grant/innovation facility;
- Engage and further define partnerships and collaboration;
- Selection of high-impact value chains
- Establish M&E methodology,
- Confirm baseline data including biotrade market status information;
- Logframe verification including outcome and output indicators;
- Budget revision based on new information acquired during inception phase; and
- Preparation of detailed work plan for Year 1.

A detailed inception report covering the above-mentioned points will be submitted to SECO and provide the basis for further decision making and project implementation.

Ideally the project will be announced and positioned with a **presentation during the 3rd Biodiversity Economy Indaba** which will be organised by DEA and is scheduled to take place towards the end of March 2018. Thematic areas will include national and international regulatory requirements for ABS compliant value chains, as well as indigenous knowledge systems and innovation (e.g. in relation to traditional medicine and cosmetics) – topics highly relevant to this project. Furthermore, responding to the transboundary nature of many South African biotrade value chains the 3rd Indaba will for the first time be open for participants from other SADC member states in order to engage on these important issues.

Implementation phase (07/2018-04/2021): During the implementation phase the project will deliver technical and financial assistance as well as policy support as described above.

Closing phase (05/2021-07/2021): Finalising pending activities, establishing final narrative and financial report.

5.4 Budget

SECO is contributing **CHF 3 million – approximately EUR 2,5 million at the current exchange rate** – to the ABS Initiative budget, earmarked for the project “ABS Compliant Biotrade in South(ern) Africa”. Committed contributions of other donors during the relevant planning period amount to:

- BMZ: EUR 3,366,864 with a planned increase of at least EUR 1,6 million in 2019, thus possibly adding up to at least EUR 4,966,864
- European Development Fund: EUR 5 million
- OIF/IFDD: a minimum of EUR 80,000 per year
- Norway: discussions are still ongoing

The financial planning year of the ABS Initiative starts with the 2nd quarter of each calendar year. As indicated in Table 1, up to 30% of the project funds are planned for (sub-)regional activities in order to



Table 1. SECO contribution (CHF 3 million convert 25 October 2017 to EUR 2,564,670) to the indicative budget for the ABS Initiative financial years 04/2017 until 03/2022.

Budget period	South Africa		remaining Africa (outside South Africa)		all Africa (including South Africa)			Caribbean	Pacific	Sum ACP
	SECO	other donors	SECO	other donors	SECO	other donors	Sum			
04/17-03/18 ¹	24.670	80.000		2.296.864	24.670	2.376.864	2.401.534	85.000	85.000	2.571.534
04/18-03/19	700.000	80.000	300.000	1.700.000	1.000.000	1.780.000	2.780.000	150.000	150.000	3.080.000
04/19-03/20	700.000	80.000	300.000	1.700.000	1.000.000	1.780.000	2.780.000	150.000	150.000	3.080.000
04/20-03/21	343.000	80.000	147.000	1.700.000	490.000	1.780.000	2.270.000	150.000	150.000	2.570.000
04/21-03/22 ²	50.000	80.000		1.200.000	50.000	1.280.000	1.330.000	150.000	150.000	1.630.000
Sum	1.817.670	400.000	747.000	8.596.864	2.564.670	8.996.864	11.561.534	685.000	685.000	12.931.534

1/ The inception phase is assumed as 02/2018-07/2018

2/ The closing phase is assumed as 05/2021-07/2021

ensure proper reflection of the transboundary character of biotrade value chains, regulatory issues and intended scaling up of impacts. Such funds will be utilized either

- for (sub-)regional workshops, policy and/or business dialogue fora (related to *outcome 1*),
- to support SMEs outside South Africa through the biotrade innovation fund/facility (related to *outcome 2*) and
- for experience / information sharing and best practice development outside of South Africa (related to *outcome 3*).

This leaves a budget of approx. EUR 2,2 million dedicated to project implementation in South Africa including inception and closing phase – EUR 1,8 million from the SECO co-funding and EUR 400.000 from the ABS Initiative core budget.

Table 2 details the project budget according to the GIZ cost scheme and provides an overview on the indicative budget allocation to the three project components /outcomes and project management.



Table 2 - Project budget in CHF based on the GIZ cost scheme including indicative distribution of the total budget across the project components/outcomes.

		Outcome 1	Outcome 2	Outcome 3	Project Management
Budgetline	Total budget in CHF	Budget in CHF	Budget in CHF	Budget in CHF	Budget in CHF
1 GIZ Human Ressources	979.497	513.408	122.344	179.371	164.374
<i>1.1 Staff and volunteers</i>	<i>410.324</i>	<i>96.339</i>	<i>87.270</i>	<i>96.555</i>	<i>130.160</i>
<i>1.2 GIZ internal services</i>	<i>52.167</i>	<i>12.888</i>	<i>20.253</i>	<i>3.682</i>	<i>15.343</i>
<i>1.3 External Expertises incl. travel costs</i>	<i>517.006</i>	<i>404.181</i>	<i>14.821</i>	<i>79.133</i>	<i>18.871</i>
2 Travel costs	62.250	4.550	15.350	15.350	27.000
<i>2.1 Travel international staff</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>2.2 Travel local staff</i>	<i>29.850</i>	<i>4.550</i>	<i>4.550</i>	<i>4.550</i>	<i>16.200</i>
<i>2.3 Travel staff in HQ</i>	<i>32.400</i>	<i>0</i>	<i>10.800</i>	<i>10.800</i>	<i>10.800</i>
<i>2.4 Travel volunteers</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>2.5 Travel integrated Experts</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>2.7 other project related travel costs</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
3 Procurement	73.000	47.600	9.800	15.600	0
<i>3.1 Materials & Equipment</i>	<i>73.000</i>	<i>47.600</i>	<i>9.800</i>	<i>15.600</i>	<i>0</i>
<i>3.2 Construction materials & services</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
4 Financing agreements	1.320.000	260.000	960.000	100.000	0
<i>4.1 Grants to partners</i>	<i>1.200.000</i>	<i>140.000</i>	<i>960.000</i>	<i>100.000</i>	<i>0</i>
<i>4.2 Local subsidies</i>	<i>120.000</i>	<i>120.000</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>4.3 Grants via other donors</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>4.4 Grants to other donors</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>4.5 Scholarship to participants HCD</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
5 HCD: participants related costs	0	0	0	0	0
<i>5.1 participant related costs</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
6 other direct costs	291.147	53.104	30.914	192.789	14.340
<i>6.1 other direct costs HQ</i>	<i>7.770</i>	<i>0</i>	<i>1.554</i>	<i>3.108</i>	<i>3.108</i>
<i>6.3 running costs local</i>	<i>37.440</i>	<i>13.104</i>	<i>9.360</i>	<i>3.744</i>	<i>11.232</i>
<i>6.4 other services</i>	<i>245.937</i>	<i>40.000</i>	<i>20.000</i>	<i>185.937</i>	<i>0</i>
<i>6.5 other costs and income</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
7 Total direct costs	2.725.894	878.662	1.138.408	503.110	205.714
Overheads	269.788	98.909	75.051	64.729	31.098
VAT	4.318	504	3.455	360	0
Estimated Price of Contract	3.000.000	978.075	1.216.914	568.199	236.812



Annex A: Market potential for biotrade products; example based on marula fruit

A rationale for a working assumption that South(ern) African biotrade products have global market potential can be derived from the example of the potential for products made from marula fruit.

Apart from “Amarula”, products from marula fruit have not yet been commercialised at any significant scale. There are several initiatives underway to address bottlenecks to commercialisation such as processing technology, supply chain and regulatory issues.

There is a strong market demand for novel or “exotic” natural products which creates an important opportunity for marula fruit. However, stronger market potential is more likely if the product also possesses properties that enable it to be positioned in general or specific health trends.

Here the following rationale is shown for marula fruit products: High level global market trend > specific health trends > link between trends and traditional uses > link to trends and chemical composition > potential positioning of product > other successful examples relevant to marula fruit. The rationale is similar to that employed in the successful commercialisation of products from rooibos and honey bush teas.

The next level of defining market potential will require linkages between product innovation and development and customers active in sectors relevant to trend areas identified (e.g. heart health, or “5-a-day”).

This rationale applies to both the value-added ingredient level in the value chain, and the final consumer product level.

The global health and wellness market is valued at up to USD 200 billion, made up of:

- Sales of functional food and drink products (i.e. strictly defined as products that claim to provide a specific health benefit such as heart health) valued at between USD 30 billion and USD 35 billion.
- Sales of food and drink products that are marketed on a general health and wellness platform (e.g. juice/smoothie products that highlight vitamin and mineral content such as ‘one of your 5-a-day’).

Over the past decade the strong global mega-trend in foods and beverages towards “natural”, “health and wellness” and “functionality” and products that provide scientifically proven health benefits, has been documented by leading consumer and market research organisations such as Mintel, Kline, Datamonitor Group, Euromonitor, Freedonia Group, Leatherhead Food Research and New Nutrition Business. Leading functionality claims include weight loss, lower cholesterol, lower blood pressure, improved digestion and reduced pain in joints (ageing population and sports/active people). These mega-trends represent an enormous global market opportunity which has kept on growing, even at the heights of the global recession (as reported by the organisations above).

The traditional uses of marula fruit products are reported in the scientific and academic literature. There is a clustering of reported uses that can be interpreted to being consistent with a modern understanding of “metabolic syndrome” which includes cardiovascular disease and diabetes.

Additionally, the scientific literature reports *in vitro* and other studies linking marula to effects associated with positive effects against “metabolic syndrome” models.

This is further supported by literature showing the natural presence in marula products and extracts of molecules and compounds known to be helpful in combating “metabolic syndrome”. This includes certain phenolic antioxidants, and a key mineral – potassium, amongst others.

These features allow for marula fruit products to be positioned in key market niches within the strong trends mentioned above, and as shown in the figure below.

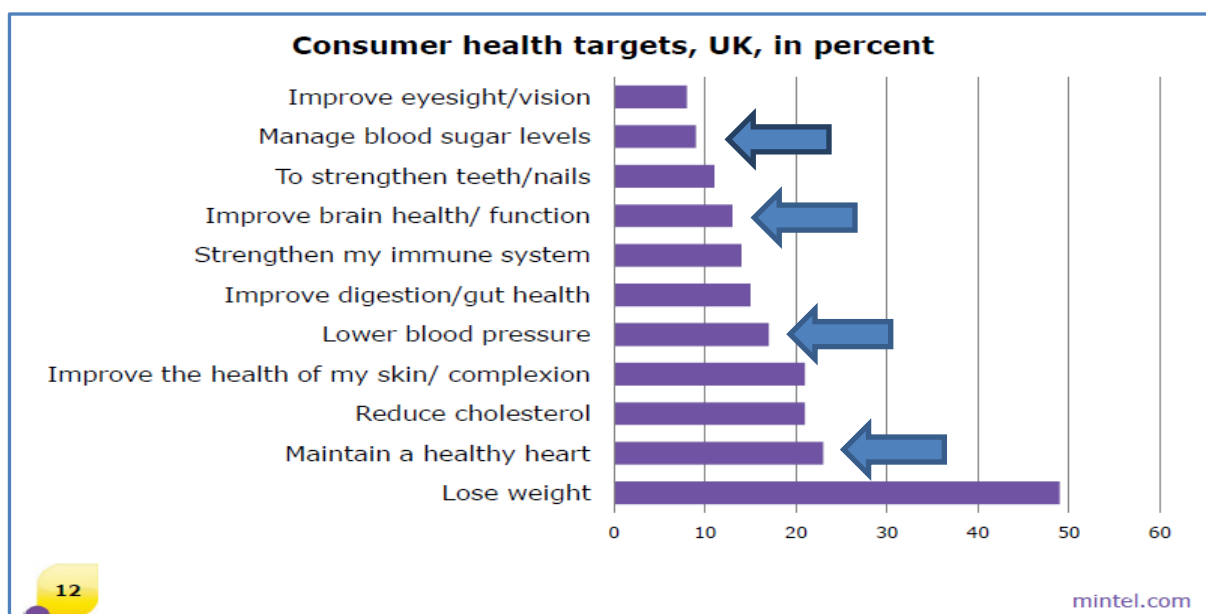


As a comparison it is instructive to consider products containing açai berries – another biotrade product successfully commercialised from South American biodiversity. Market studies report the estimated value of products containing açai berries to be worth USD 3.3 billion globally. Beverage products account for the majority of implied market value, in particular flavoured, still drinks, juice and nectars and energy drinks. From 2002 to 2012 (end June) a total of 2,636 products containing açai berries were launch.

Another relevant product that also targets heart health is pomegranate fruit. Products made from this fruit have an estimated value of USD13.1 billion globally. Again, beverage products account for a significant majority of implied market value, in particular flavoured, still drinks, juice and nectars and carbonated soft drinks. Between 2002 and 2012 8,491 products containing pomegranate were launched.

In order for products from marula fruit to become established on the global markets, the traditional uses and chemical composition can be positioned to fulfil strong market trends through innovation and commercialisation as proposed in the ABS Compliant Biotrade Project.

Figure 1: Possibilities for positioning marula fruit products in health sectors:





Annex B: Logframe

Strategy of Intervention	Key Performance Indicators	Means of verification	External Factors (Assumptions / Risks)
Impact: In line with the objectives of the Nagoya Protocol on ABS a high-growth, jobs-rich, innovative biotrade sector compliant with national ABS regulations supports sustainable development goals and contributes to livelihoods of rural people and the sustainable use of South(ern) Africa's plant biodiversity.	Increase in trade volume of USD 1 million per year of sustainably produced biotrade products from South(ern) Africa is generated creating 50 new permanent and 1,000 new seasonal jobs within ABS compliant value chains	Project M&E reports, industry data, regulator records	Political environment does not deteriorate, positive understanding with regulator continues to be conducive and constructive, continued buy-in from industry
Outcome 1 SMEs access new global markets for biotrade products based on national and transboundary value chains with strong participation of IPLCs.	1.1 At least 15 southern African SMEs (10 in SA, 5 in region) access the EU and other export markets for 6 new product categories ⁸ . 1.2 At least 3 benefit-sharing agreements (2 in SA, 1 in region) involving organised and capacitated IPLCs are secured. 1.3 At least 10 southern African SMEs in the biotrade sector (7 in SA, 3 in region) are capacitated to become investment ready	Documentation of communication with users (companies) (e.g. emails, minutes from workshops or other meetings), documentation of identified products (e.g. scientific publications, studies, websites) Documents of communication with IPLCs, documents describing agreements, academic publications Reports by sector organisations / BSOs / experts providing evidence of proposals and business plans of SMEs meeting standards and quality criteria for support from government incentive schemes and financial institutions such as IDC	Non-tariff barriers in target markets do not tighten to restrict new products from emerging markets, continued positive sentiment and willingness of SMEs to invest and collaborate, sufficient capacity in BSOs/sector organisations
Output 1.1 – Targeted non-tariff barriers are addressed in a way that enables multiple SMEs to access new global markets for key biotrade products.	1.1.1 Three reports/briefs on market sectors relevant to biotrade SMEs. 1.1.2 12 value chains/species/products assessments with justification for 6 selected. 1.1.3 Six market access dossiers addressing non-tariff barriers are prepared	Market reports/briefs placed on project website Workshop reports, reports by experts Document tabling non-confidential details of all dossiers, correspondence from regulatory authorities	

⁸ An essential oil approved in a consumer market such as the EU for cosmetic uses is one product category, and the same (or very similar) essential oil approved for use as a food additive or flavorant would be another product category. Marula oil is currently on the EU market as a cosmetic oil. If it were approved for use as a food oil then this would be another product category.



Strategy of Intervention	Key Performance Indicators	Means of verification	External Factors (Assumptions / Risks)
	1.1.4 One dissemination workshop conducted, 15 briefings for SMEs, communications materials comprising sector briefing	Workshop reports, briefings on project website	
Output 1.2 – Selected IPLCs are supported with technical assistance for effective participation in agreed biotrade value chains.	1.2.1 Seven assessment reports on suitability and potential impact of IPLCs with associated traditional knowledge of relevant value chains. 1.2.2 Three sets of training materials developed and strategies for IPLCs developed. 1.2.3 One workshop/meeting prepared/developed, facilitated and training delivered. 1.2.4 Three Bio-cultural community protocols or comparable instruments 1.2.5 Strategies for 3 IPLCs	Assessment reports, publications by experts Train materials, strategy documents, statements by IPLC organisations Workshop reports, training materials MoUs, other documents describing agreements Strategy documents by consultants/ partner organisations	
Output 1.3 – Investment readiness of selected SMEs in the biotrade sector is achieved by technical assistance.	1.3.1 Two workshops conducted to facilitate rapid assessment of investment readiness of sector SMEs, including development of selection criteria. 1.3.2 Detailed assessments undertaken by BSOs/sector organisations, experts of 20 SMEs. 1.3.3 Ten business plans/proposals/strategies developed	Workshop reports, document describing agreed criteria Reports by BSOs/sector organisations Reports by BSOs/sector organisations, document(s) with summaries comprising non-confidential information of each business plan/proposal	
Outcome 2 SMEs use financial assistance designed specifically for biotrade innovation and growth whilst leveraging own resources and/or government incentive schemes.	2.1 A facility which is coherent with at least 2 incentives schemes of the South African government, and meeting the requirements of SMEs in the biotrade sector, is established 2.2 24 new products and technologies are developed and launched by SMEs in the southern African biotrade sector (18 in SA, 6 in region)	Correspondence with government departments, agreements, correspondence with private sector Project reports tabling non-confidential information on innovations, press releases, marketing materials of SMEs	Co-funding through government departments remain in place and are bureaucratically workable, private sector remain attracted to scheme
Output 2.1 – Biotrade innovation facility is designed and established.	2.1.1 Key stakeholders including potential co-funders engaged and in agreement. 2.1.2 Facility designed and established with targets/objectives and criteria, focus areas, modus operandi.	Meeting reports sector survey, correspondence from relevant stakeholders, document describing agreement Facility design document/terms of reference	



Strategy of Intervention	Key Performance Indicators	Means of verification	External Factors (Assumptions / Risks)
Output 2.2 – Biotrade innovation facility operated to support ABS compliant SMEs to innovate and grow.	2.2.1 First round of approximately 12 grant applications reviewed, selected/rejected, and executed 2.2.2 Review/evaluation of performance of facility's first phase. 2.2.3 Further phase(s) with improvements/modifications with approximately 12 grants executed, funds disbursed and used, new products and technologies reported, reviewed and evaluated	Facility report including financial report Evaluation report including M&E data from participating SMEs Facility report including financial report, product and technology promotion materials from SMEs	
Outcome 3 Improved ABS implementation framework supports the biotrade sector development in South Africa and the (sub-)region.	3.1 Improved rules and regulations and enhanced competitiveness for facilitating market access: (a) Relevant stakeholders in the biotrade sector rate the efficiency of the South African ABS permitting process on a scale from 1 to 6 with 4 or higher. (b) Increased efficiency in SA ABS permitting process by 30 % (handling time / No of permits). 3.2 3 relevant southern African sector and business support organisations in the biotrade sector develop and implement industry best practices aligned with national policies. 3.3 Relevant southern African stakeholders as well as regional and international organisations rate their satisfaction level with and the usefulness of the outputs of the project on a scale from 1 to 6 with 4 or higher.	Stakeholder survey, reports of relevant industry fora and DEA statistics, feedback from permit applicants. Best practices published, Corporate/sector organisations statements and websites Stakeholder survey	Continued collaborative arrangements and sentiment with regulators and policy makers, private sector remains willing to participate in ABS
Output 3.1 – Drafts amendments for NEMBA and BABS are finalised.	3.1.1 At least 3 concepts for improved efficiency and effectiveness of key features (e.g. IPLC PIC for TK, scope of BR/GR/INP, BS concepts) of NEMBA and BABS amendments are developed. 3.1.2 Two concepts for a streamlined permitting system (horizontal: export, research, phytosanitary; vertical: national, provincial, local) are outlined. 3.1.3 At least 4 consultative workshops with DEA and/or key stakeholders. 3.1.4 Drafts for NEMBA and BABS amendments are submitted to decision making bodies.	Reports comprising concepts Reports, discussion documents Workshop reports Draft documents	



Strategy of Intervention	Key Performance Indicators	Means of verification	External Factors (Assumptions / Risks)
Output 3.2 – Industry best practices complementing NEMBA, BABS and other relevant policies / regulatory frameworks are endorsed by sector organisations.	3.2.1 At 3 sector organisations develop best practices aligned with the SA BES. 3.2.2 At least 1 sector organisations endorse best practices aligned with the SA BES.	Workshop reports, websites of sector organisations Websites and policy papers of sector organisations, websites and policy statements of SMEs	
Output 3.3 – Lessons learned and best practices are documented and shared with relevant stakeholders in southern Africa, Africa and at global scale (e.g. via UNCTAD BioTrade Platform).	3.3.1 At least 5 guidance documents / policy briefs and handouts are elaborated and reviewed involving relevant partners (e.g. SCBD, UNCTAD BioTrade Platform, SADC, NEPAD, AU Commission). 3.3.2 Project webspace for dissemination of guidance documents / handouts created 3.3.3 At least 3 (sub-)regional workshops and dialogue fora for scaling-up experiences are conducted.	Documents ABS Initiative website, documents/reports Workshop reports	



Annex C: Logframe Coherence

The co-financing of SECO – through its earmarked funding for the project “ABS compliant Biotrade in South(ern) Africa” – contributes to attaining the objectives that the ABS Initiative has set for its support in Africa at different levels of its intervention logic. It must be noted that the overall objective of the ABS Initiative is identical with the objective of the Nagoya Protocol on ABS:

GIZ implemented ABS Capacity Development Initiative	SECO cofunding contribution “ABS Compliant Biotrade in South(ern) Africa”
Objective: The fair and equitable sharing of the benefits arising from the utilization of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding, supports national sustainable development, the livelihoods of rural people, the conservation of biological diversity and the sustainable use of its components. Outcome: Stakeholders in pilot and cooperation countries (governments, indigenous and local communities, public research organisations, private sector and NGOs) as well as regional and international organizations use the contributions of the ABS Initiative for operationalizing access to genetic resources and the fair and equitable sharing of benefits arising from their utilization.	Impact: In line with the objectives of the Nagoya Protocol on ABS a high-growth, jobs-rich, innovative biotrade sector compliant with national ABS regulations supports sustainable development goals and contributes to livelihoods of rural people and the sustainable use of South(ern) Africa's plant biodiversity. Outcome 1: SMEs access new global markets for biotrade products based on national and transboundary value chains with strong participation of IPLCs. Outcome 2: SMEs use financial assistance designed specifically for biotrade innovation and growth whilst leveraging own resources and/or government incentive schemes. Outcome 3: Improved ABS implementation framework supports the biotrade sector development in South Africa and the (sub-)region.
Output A: Draft institutional and legal frameworks for ABS implementation at national and (sub-)regional level.	Output 3.1: Drafts amendments for NEMBA and BABS are finalised. Output 3.2: Industry best practices complementing NEMBA, BABS and other relevant policies / regulatory frameworks are endorsed by sector organisations.
Output B: Draft ABS agreements with users of the public research and private sector.	Output 1.1: Targeted non-tariff barriers are addressed in a way that enables multiple SMEs to access new global markets for key biotrade products. Output 1.3: Investment readiness of selected SMEs in the biotrade sector is achieved by technical assistance. Output 2.1: Biotrade innovation facility is designed and established. Output 2.2: Biotrade innovation facility operated to support ABS compliant SMEs to innovate and grow.
Output C: Biocultural Community Protocols (BCPs) or comparable instruments as basis for the negotiation of ABS agreements involving IPLCs.	Output 1.2: Selected IPLCs are supported with technical assistance for effective participation in agreed biotrade value chains.
Output D: Instruments and tools (check lists, manuals, guidelines, etc.) for supporting stakeholders in pilot and cooperation countries in implementing ABS.	Output 3.3: Lessons learned and best practices are documented and shared with relevant stakeholders in southern Africa, Africa and at global scale (e.g. via UNCTAD BioTrade Platform).
Output E: Necessary information for the Steering Committee of the ABS initiative.	



Annex D: Indicative Species List for High-impact Value Chains

Candidate species for high-impact value chains identified in 2016 by the DEA, in collaboration with other institutions through the BioLab and BioPANZA. Out of 27 species, 11 are largely or fully endemic to South Africa, 10 occur in South Africa and at least one neighbouring country, and 6 have wide distribution throughout much of Africa:

Species	Common name	Distribution
Species for sustainable wild harvesting and cultivation		
<i>Agathosma betulina</i>	buchu	South Africa
<i>Cyclopia intermedia</i>	honeybush	South Africa
<i>Cyclopia genistoides</i>	honeybush	South Africa
<i>Harpagophytum procumbens</i>	devil's claw	South Africa, region
Species for sustainable wild harvesting		
<i>Aloe ferox</i>	African aloe	South Africa
<i>Adansonia digitata</i>	baobab	South Africa, region, Africa
<i>Sclerocarya birrea</i>	marula	South Africa, region, Africa
Species targeted for cultivation		
<i>Agathosma crenulata</i>	buchu	South Africa
<i>Aspalathus linearis</i>	rooibos	South Africa
<i>Bulbine frutescens</i>	bulbine/burn jelly	South Africa, region
<i>Erisema kraussianum</i>	bangalala	South Africa
<i>Helichrysum odoratissimum</i>	golden everlasting	South Africa
<i>Hoodia gordonii</i>	hoodia	South Africa, region
<i>Hypoxis hemerocallidea</i>	African potato	South Africa, region
<i>Kigelia Africana</i>	sausage tree	South Africa, region, Africa
<i>Lippia javanica</i>	Lippia	South Africa, region
<i>Lobostemon fruticosus</i>	pyjama bush	South Africa
<i>Pelargonium reniforme</i>	kidney leaved pelargonium	South Africa
<i>Pelargonium sidoides</i>	kalwerbossie	South Africa
<i>Sceletium tortuosum</i>	kanna	South Africa, region
<i>Siphonochilus aethiopicus</i>	wild ginger	South Africa, region
<i>Sutherlandia frutescens</i>	cancer bush	South Africa, region
<i>Trichillia emetic</i>	mafura	South Africa, region
<i>Tylosema esculentum</i>	marama bean	South Africa, region
<i>Warburgia salutaris</i>	pepperbark tree	South Africa, region
<i>Ximenia Americana</i>	sour plum	South Africa, region, Africa
<i>Ximenia caffra</i>	sour plum	South Africa, region, Africa



Annex E: Overview on selected South African incentive schemes

Incentive Scheme	Objectives	Eligibility criteria	Offering / Benefits
1. Department of Trade and Industry (DTI)			
1.1. Trade, Export and Investment Financial Assistance			
1.1.1 Export Marketing & Investment Assistance Scheme (EMIA) The EMIA develops export markets for South African products and services and to recruit new foreign direct investment into the country.	- Provide marketing assistance to develop new export markets and grow existing export markets; - Assist with the identification of new export markets through market research; - Assist companies to increase their competitive by supporting patent registrations, quality marks and product marks; - Assist with facilitation to grow FDI through missions & FDI research; - Increase the contribution of black-owned businesses and SMMEs to South Africa's economy	- South African manufactures and exporters; - South African export trading houses representing at least three SMMEs or businesses owned by Historical Disadvantaged Individuals (HDIs); - South African commission agents representing at least three SMMEs / HDI-owned businesses; and - South African exports councils, industry associations and JAGs representing at least five South African entities	Individual Exhibition Participation: - Transport of samples; - Rental of exhibition space; - Construction of stands; Interpretation fees; Internet connection; Telephone installation; - Subsistence allowance per day; - Return economy-class airfare; and - Exhibition fees up to a max. of R45 000. Primary Market Research & Foreign Direct Investment: Exporters will be compensated for costs incurred recruiting in new FDI into SA through personal contact by visiting potential investors in foreign countries. - Return economy-class airfare; - Subsistence allowance per day; - Transport of samples; and - Marketing material. Individual Inward Mission Assistance is provided to SA entities organising an inward buying investor, to make contact with them to conclude an exporters order or to attract foreign direct investment. - Registration of a patent in a foreign market: 50% of the additional costs capped at R100 000 pa; Return economy class-airfare; - Subsistence allowance per day; - Rental of exhibition space.



Incentive Scheme	Objectives	Eligibility criteria	Offering / Benefits
1.1.2 Sector Specific Assistance Scheme (SSAS)	- Developing an industry sector as a whole - Developing new export markets - Stimulate job creation - Broadening the export base - Proposing solutions to factors inhibiting export growth - Promote broader participation of black owned and SMME's to the economy	The Sector Specific Assistance Scheme is a reimbursable cost-sharing incentive scheme whereby financial support is granted to organisations supporting the development of industry sectors and those contributing to the growth of South African exports	- Export development costs such as market research, consultancy fees and other expenses - Export promotion costs such as consultancy fees and other expenses - Product development costs such as consultancy fees and other expenses - Company development costs such as consultancy fees and expenses towards installing or - Improving Quality Management Systems - Service development such as consultancy fees and other expenses - Advertising and publicity (international) - The applicant who receives funding from the dti cannot apply for funding/ financial assistance scheme, neither from the dti, nor from any government (national, provincial and municipal or its Agencies)
1.2. Industrial Development Incentive			
1.2.1 Capital Projects Feasibility Programme (CPFP) The Capital Projects Feasibility Programme (CPFP) is a cost-sharing grant that contributes to the cost of feasibility studies likely to lead to projects that will increase local exports and stimulate the market for South African capital goods & services.	The primary objective of the programme is to facilitate feasibility studies that are likely to lead to high-impact projects which will stimulate value-adding economic activities in South Africa as this will have greater impact on the country's industrial policy objectives. The secondary objectives of the programme include: Attracting high levels of domestic and foreign investments;	- SA registered legal entity. A foreign entity will only be considered if it partners with a SA registered entity and the application is submitted by the SA entity. - New projects, expansion of existing projects and the rehabilitation of existing projects; - The programme that is anticipated to emerge from the feasibility study must fulfil the objectives of the programme; - The minimum local content should be 50% for goods and 70% for professional	The grant is capped at R8 million to a maximum of 50% of the total costs of the feasibility study for projects outside Africa and 55% of the total costs of the feasibility study for projects in Africa.



Incentive Scheme	Objectives	Eligibility criteria	Offering / Benefits
	▪ Strengthening international competitiveness of SA capital goods sector & allied industries; ▪ Creating sustainable jobs in South Africa; ▪ Creating a long-term demand for South African capital goods and services; ▪ Stimulating project development in Africa and in particular the Southern African Development Community (SADC) countries as well as support for the objectives of the New Partnership for Africa's Development (Nepad); ▪ Stimulating upstream and downstream linkages with SMMEs and BEE companies.	services which remains at the discretion of the Adjudication Committee; ▪ Projects can be situated anywhere in the world (excluding South Africa); ▪ The project must have an adequate chance of being declared a success. ▪ Additional evaluation criteria which can be considered as motivational factors about the project which may result in: ▪ A positive impact on other developmental aspects including job creation, skills development, linkages with small, medium and micro enterprises etc. ▪ A minimum of 10% of the total professional services involved during the feasibility study should be sub-contracted to South African black-owned professionals/entities; ▪ A clear detailed time period within which the project emanating from the feasibility study will be realised; ▪ Buy-in and other sources of funding from private and public sector organisation(s) to realise the project.	
1.3.Technology and Human Resource for Industry Programme (THRIP)	▪ To support an increase in the number of black and female students who intend to pursue technological and engineering careers; ▪ To promote technological know-how within the Small, Medium	▪ Projects must promote and facilitate scientific research, technology development, and technology diffusion, or any combinations of these;	▪ Research must lead to the development of a prototype (product, process, technique or methodology) that will benefit the industry partner(s) ▪ At least one registered South African student (at 4th Year level or higher) must be involved and trained through the research per R200 000 THRIP investment.



Incentive Scheme	Objectives	Eligibility criteria	Offering / Benefits
	and Micro Enterprise (SMME) sector; through the deployment of skills vested in Higher Education Institutions (HEIs) and SETIs; - To facilitate and support multi-firm projects in which firms (including at least one Black Economic Empowerment- (BEE)-compliant) collaborate and share in the project outcomes; and - To facilitate and support the competitive potential of black-owned enterprises through technology and human resources development.	- All projects funded by THRIP must include a human resource development component; and - The choice of technological focus for the activities is to be left to the industry participants and their partners, although preference is given to the following industrial and growth sectors of the dti: - Agro-processing; Biotechnology; Forestry and timber; Pharmaceuticals; - Automotive; Capital equipment and capital goods; Chemicals; Metals; - Business Process Outsourcing (BPO); Clothing and textiles; Creative industries; - Cultural industries; - Information and Communications Technology; - Tourism.	In addition, non-South African students can qualify for R85 000. Project leaders should have full-time employment status at the HEI or SETI.
1.4 Manufacturing Competitiveness Enhancement Program (MCEP) - Transferred to the IDC			
2. Department of Small Business Development:			
2.1 Broad Based Black Economic Empowerment (BBBEE)			
2.1.1 Strategic Partnership Programme (SPP) SPP will be available on a cost-sharing basis between Government and the strategic partner(s). It is available for infrastructure and business development services necessary to	The objective of SPP to encourage large private sector enterprises in partnership with Government to support, nurture and develop SMEs within the partner's supply chain or sector to be manufacturers of goods and suppliers of services in a sustainable manner.	The strategic partner can either be: - A South African registered legal entity in terms of the Companies Act, 1973 (as amended) or the Companies Act, 2008 (as amended); the Close Corporation Act, 1984 (as amended) or the Co-operatives Act, 2005 (as amended) - An entity with a minimum turnover of R100 million per annum for at least two (2) consecutive years at application stage	Grant support - The grant approval will be based on projections for the first year at application stage whereas the approval for subsequent year(s) will be dependent on the review of actual performance of the preceding year against agreed milestones. - All payments will be made directly to the strategic partner's established Special Purpose Corporate Vehicle (SPCV) or a set-up cost centre.



Incentive Scheme	Objectives	Eligibility criteria	Offering / Benefits
mentor and grow enterprises.	The following costs are eligible for support: ▪ Machinery, equipment and tools ▪ Infrastructure linked to the strategic partner's supplier development initiative (owned/leased buildings, leased improvements) ▪ Product or service development ▪ Information and Communication Technology (ICT) ▪ Operational costs ▪ Business development services	confirmed by the latest available audited financial statements. ▪ An Industry association registered in terms of paragraph 4.1.1 above, representing interests of member manufacturing companies. ▪ An association with five (5) or more registered legal entities ▪ An association which can organise itself for this purpose and must in this regard provide a letter(s) of commitment from manufacturer(s) that controls and/or has a direct influence in the market/manufacturing value chain to be developed.	▪ The grant approval is capped at a maximum of R15 million (vat inclusive) per financial year over a three (3) year period towards qualifying costs, based on the number of qualifying suppliers and is subject to the availability of funds ▪ SPP offers a cost-sharing support of 50:50 towards manufacturing projects and 70:30 for projects that support manufacturing supply chain related services and deemed strategic by the DTI.
2.1.2 The Black Business Supplier Development Programme (BBSDP) BBSDP is a cost-sharing grant offered to black-owned small enterprises to assist them to improve their competitiveness and sustainability to become part of the mainstream economy and create employment In order to access the scheme, we are using Network Facilitators. NB: Network Facilitators (NF's) are independent contractors who act as	▪ To fast track existing Small, Medium and Micro Enterprises (SMMEs) that exhibit good potential for growth into the mainstream economy; ▪ To grow black-owned enterprises by fostering linkages between black SMMEs and corporate and public-sector enterprises; ▪ To complement current affirmative procurement and outsourcing initiatives of corporate and public-sector enterprises; and ▪ To enhance the capacity of grant recipient enterprises to success-	▪ The programme provides grants of up to R1000,000 ▪ R800 000 for tools, machinery and equipment on a 50:50 cost-sharing basis; and ▪ R200 000 for business development and training interventions per eligible enterprise to improve their corporate governance, management, marketing, productivity and use of modern technology on a 80:20 cost-sharing basis.	▪ Fifty-one per cent black majority shareholding; ▪ R250 000 to R35 million turnover per year; ▪ One year in operation and trading as a business; ▪ Fifty per cent management positions held by black people (historically disadvantaged individuals); ▪ Enterprises formally registered for VAT; ▪ Be operating and trading for at least one financial year – at the sole discretion of DSBD, an enterprise that has been operational/registered for less than a year may be considered for this incentive, provided that the enterprise can supply sufficient evidence to service a tender/contract.



Incentive Scheme	Objectives	Eligibility criteria	Offering / Benefits
honest brokers between DBSDB and black enterprises seeking assistance under BBSDP	fully compete for corporate and public-sector tenders and outsourcing opportunities.		
2.1.3 The Co-operative Incentive Scheme (CIS) is a 100% grant for registered primary co-operatives (a primary co-operative consists of five or more members) to improve the viability and competitiveness of co-operative enterprises by lowering their cost of doing business through an incentive that supports Broad-Based Black Economic Empowerment	- Promote co-operatives through the provision of a matching grant; - Improve the viability and competitiveness of co-operative enterprises by lowering the cost of doing business; - Assist co-operatives to acquire their start up requirements; - Build an initial asset base for emerging co-operatives to enable them to leverage other support; and - Provide an incentive that supports broad-based black economic empowerment	- Be incorporated and registered in South Africa in terms of the Co-operatives Act of 2005; - Be emerging co-operatives with a majority black ownership; - Have projects in any of the different economic sectors; - Adhere to co-operative principles; - Be owned by historically disadvantaged individuals (HDIs); and - Be biased towards women, youth and people with disabilities.	- Business development services (e.g. feasibility studies; business, manufacturing and production systems; and production efficiency and improvement, etc); - Technological improvements; - Machinery, equipment and tools; - Commercial vehicles; - Infrastructure linked to the project (e.g. 3-phase electricity; boreholes, etc.); and - Working capital.
2.1.4 Enterprise Incubation Program (EIP) EIP is targeted at South African registered and tax compliant entities -Small, Medium and Micro Enterprises (SMMEs) and Cooperatives with vast experience in the development and mentoring of early stage enterprises and cooperatives with potential	The objective of the programme is to support the establishment of new incubators and for the growth and expansion of existing incubators. Both new and expanding incubator applicants will be evaluated in line with the sector/field related experience of the applicant accompanied by confirmed past performance and portfolio of evidence.	A registered legal entity in SA in terms of the Companies Act, 1973 (as amended) or the Companies Act, 2008 (as amended); the Close Corporations Act, 1984 (as amended) or the Co-operatives Act, 2005 (as amended), Non-Profit Organisation (NPO) & Trust. The programme is available to applicants that want to establish new incubators as a separate registered legal entity or wish to grow and expand existing ones.	For the pilot year, the programme offers a hundred percent(100%) subsidy from a minimum of five million rand (R5 000 000) to a maximum of 10 million rand (R10 000 000) to eligible applicants up to 3 years depending on the sector, activities and development needs of incubated enterprises and subject to the availability of funds. The incentive may be used to acquire qualifying business development support, infrastructure, machinery, equipment and tools.



Incentive Scheme	Objectives	Eligibility criteria	Offering / Benefits
to supply goods and services to firms in the local economy on a sustainable basis.			
3. Small Enterprise Development Agency (SEDA)			
3.1 Technology Programme (STP)			
3.1.1. Technology Transfer Unit (TTU) STP provides a range of services that assist small enterprises, particularly enterprises in the 2nd economy, to access and acquire technology. "2nd economy", as defined by STP , broadly refers to small enterprises (registered or not registered) that are marginalised with respect to all or most of the following: ▪ Access to funds; ▪ Access to markets; ▪ Limited business skills; ▪ Limited technical know-how; and ▪ Access to appropriate technology.	The Technology Transfer Unit (TTU) of STP has two main objectives, namely: ▪ To provide technology transfer services to small enterprises; ▪ To provide specific technology support to women-owned enterprises.	The latter objective focuses on the provision of technology transfer services and support to women-owned enterprises (>50% woman ownership), while both objectives are aimed at providing funding for small enterprises to acquire the necessary technology and technical support for effective technology transfer transactions. STP offers financial assistance in the form of a non-repayable grant up to a maximum of R600 000 per project.	▪ Design, formulation, materials and methods transfer, including design improvement and optimisation; ▪ Know-how, knowledge, skills and expertise transfer, including training and mentoring related to the technology being transferred; ▪ Designs, equipment, systems, machinery and tooling directly related to the product and process technology being transferred; ▪ The know-how, knowledge, skills and expertise required to operate and maintain the equipment, systems and machinery, including training and mentoring related to the technology being transferred; ▪ Expert labour costs regarding the technology, where such costs do not exceed 20% of the total approved TTF funding provided by stp; ▪ Intellectual Property payments (e.g. Licensing Agreements) and expertise transfer payments to enable the TTF transaction. ▪ Travelling and subsistence claims relating to the technology transfer transactions, subject to Adjudication Panel's prior approval; ▪ Legal and expert resource expenses regarding the negotiations, agreement and transfer of the technology; ▪ Business training, development and mentoring; and



Incentive Scheme	Objectives	Eligibility criteria	Offering / Benefits
			General business services, e.g. equipment, machines, facilities or processes that are utilised to provide repairs, examinations, overhauls, support or assistance in some form or other, as well as specialised equipment, machines or processes are utilised to provide support for manufacturing, mining, agro-processing or service enterprises.
3.1.2 Quality Management Ensures that small businesses have access to quality control and assessment processes, and provides training and access to accreditation and certifications - To promote the importance of quality and standards as key drivers of South Africa's competitiveness; - To enhance the quality and standard of products and services produced by South African entrepreneurs for national and export markets through providing advice and technical support; - To develop technical skills needed to create a broader understanding of national and international compliance standards; - To provide systems support to South African firms to upgrade their industrial capabilities through standards and quality assurance with a key focus on small, medium and micro-sized enterprises; and - To provide conformity assessment support to small businesses in South Africa, helping them to overcome technical barriers to trade.			
3.2.(1) Enterprise Development Sub-Unit			- Quality awareness coaching sessions - Quality health checks - Electronic business maturity tool - Quality booklets – Micro-enterprise support - Training, and training of trainers on: - ISO 9001:2008; - ISO 18001; - Food safety - HACCP – ISO 22000; - Good manufacturing practices; - Strategic business process management; - Measurement standards – New; - Lean manufacturing – New; - ISO 14001 – New;

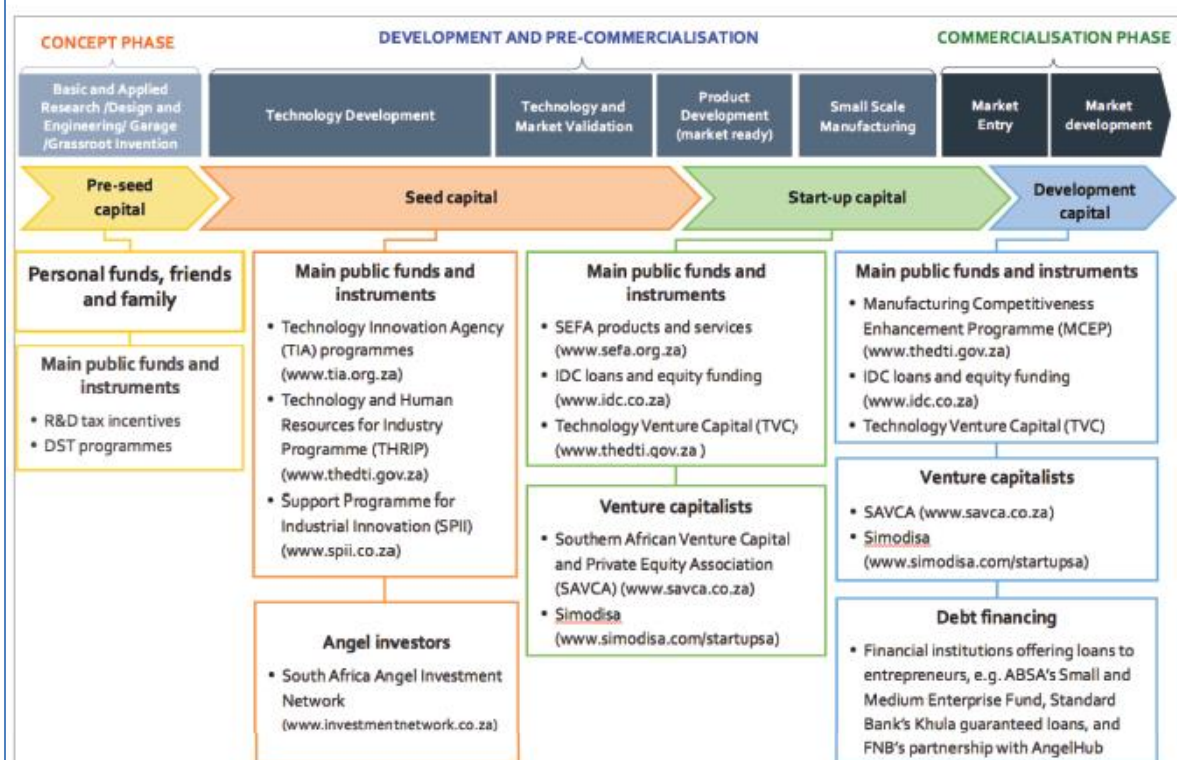


Incentive Scheme	Objectives	Eligibility criteria	Offering / Benefits
3.2. (2) Conformity Assessment Sub-Unit:	The Unit facilitates the development and implementation of the following management systems through the provision of R90 000-00 in grant/incentive support: Facilitates the certification process through SABS and other certification bodies. The organisation has a choice between going for full certification at once, or being certified through three-step phases Product certification – R60 000.00 grant /incentive		▪ ISO 9001:2008 (Quality management system) ▪ ISO 14001 (Environmental management system) ▪ ISO 22000 (Food handling and processing management system) ▪ OHSAS 18001 (Occupational health and safety management system) ▪ ISO 17024 (Laboratory accreditation) – New ▪ Auditor training ▪ Facilitation of third-party certification ▪ Conformity assessment training
4. Job Creation Treasury Department			
4.1 The Jobs Fund The vision of the JF is to contribute to the national imperative to address high levels of unemployment in South Africa	Supporting sustainable job creation , and improving the employment prospects of young people and women.	The Jobs Fund operates as a Challenge Fund. This means applicants are assessed according to a competitive process which identifies and rewards only those initiatives which offer the most impact in relation to sustainable job creation. Enterprise Development – targets initiatives which leverage existing private sector capacity, experience and resources to facilitate job creation ▪ Infrastructure Development – targets light infrastructure investments which will unlock investment and activity linked to additional job creation ▪ Support for Work Seekers – targets innovative approaches to training and job placement which enables jobs for unemployed work seekers. ▪ Institutional Capacity Building – targets institutional strengthening and capacity building of entities that underpin the effective operation of SA's labour market and employment facilitation entities.	



Sources of funding from concept phase, development and pre-commercialisation, and commercialisation

ANNEXURE 3: SOURCES OF FUNDING¹



¹ The list of funding opportunities presented in this figure is not exhaustive. For a list of public innovation and technology funding instruments, please visit the dti's website: http://www.thedti.gov.za/financial_assistance/Innovation_value_Chain.jsp



The Technology Innovation Agency

[Downloaded from website 28th June 2017]

TIA is a national public entity that serves as the key institutional intervention to bridge the innovation chasm between research and development from higher education institutions, science councils, public entities, and private sector, and commercialisation.

Vision

To be a world-class leading technology innovation agency that stimulates and supports technological innovation to improve the quality of life for all South Africans.

Mission

To facilitate the translation of South Africa's knowledge resource into sustainable socio-economic opportunities.

Goals

- To position TIA as a thought leader in technological innovation in South Africa.
- To provide South Africa with appropriate and effective support for innovation with high social and economic impact.
- To support and enhance technological innovation in Africa and globally through partnership initiatives.

Mandate

The mandate of TIA is derived from the provisions of the Technology Innovation Act (Act 26 of 2008), which establishes TIA to promote the development and exploitation, in the public interest, of discoveries, inventions, innovations and improvements. The object of TIA is to support the State in stimulating and intensifying technological innovation in order to improve economic growth and the quality of life of all South Africans by developing and exploiting technological innovations.

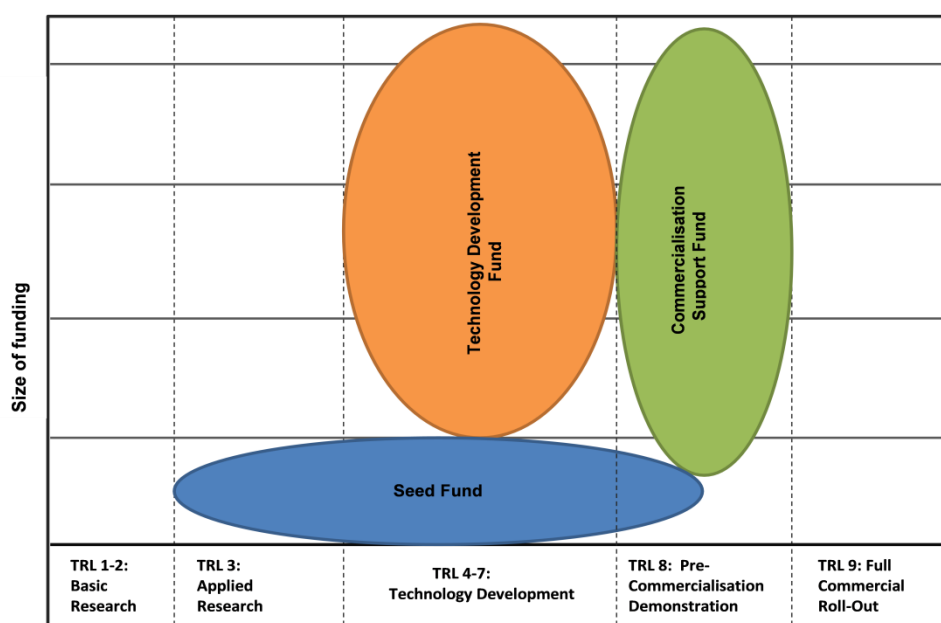
Strategic roles

TIA will scout for new ideas through a number of mechanisms, including those it has not exploited before such as open innovation initiatives, and will play the following strategic roles within the NSI in response to current gaps and weaknesses in the system:

- **A connector:** catalyse partnerships between SMMEs, industries, universities and science councils to develop an enabled environment supporting sector-specific innovations for global competitiveness.
- **An active funder:** provide risk funding and support for innovators to progress ideas towards market entry and commercialisation.
- **A facilitator:** attract and facilitate late-stage funding (companies, industries, venture capital firms, and development finance institutions) for the commercialisation of market ready technologies.
- **A service provider:** reduce barriers of access to expensive high-end skills and equipment for innovators by repositioning Technology Stations and Platforms. TIA's specific role in this regard is to fund and support host institutions to provide relevant service offerings.
- **Technological innovation thought leader:** TIA is continually gathering valuable intellectual capital on best practice in technology innovation. This has strengthened the capability of the Agency to inform and provide advice on policy issues, frameworks and mechanisms relating to the advancement of technology innovation.

Risk Funding Schemes

TIA offers three risk funding schemes aimed at directly financing technology development projects with commercial potential.



The access points to the funding schemes are differentiated based on a combination of the amount of funding the applicant requires for technology development, the stage of technology development as defined by the technology readiness level (TRL) and whether the applicant's funding request aligns with the purpose of the TIA funding schemes.

- **Seed Fund** - To assist researchers from higher education institutions, science councils, technology entrepreneurs and SMMEs to advance their research outputs and ideas for proof of concept, development of prototypes and business cases that could be used for further development. In order to apply for Seed funding, innovators should contact the Tech Transfer Offices(TTOs) at the relevant university. Seed funding cannot be accessed by completing an online application on the TIA website.
- **Technology Development Fund** - To assist innovators to advance technologies along the innovation value chain, from proof of concept to technology demonstration.
- **Commercialisation Support Fund** - To prepare innovators for follow-on funding, through limited support for market testing and validation. In this instance, TIA's role is to connect technology innovators to onward business and investment opportunities.

How to apply for Funding

Eligibility

Who is eligible?

- Science Councils and Higher Education Institutions
- Start-up companies
- Small, medium and micro-sized enterprises
- Large companies participating within the Innovation Support Programmes.

Minimum requirements

Applicants other than Science Councils and Higher Education Institutions applying for financial assistance from TIA must fulfil the following requirements:

- Applicants must be South African citizens with valid South African identity documents or legal entities registered with CIPC;
- Applicants must have the necessary contractual capacity to engage with TIA;
- All primary business operations, including but not limited to projects / programmes / enterprises, must be operated within South Africa and be registered with the CIPC;



- Applicants must meet the dti's Localisation Framework requirements of a minimum of 20% equity ownership by a South African entity and B-BBEE requirements as per the B-BBEE Act.
- The enterprise must be compliant with generally accepted corporate governance practices appropriate to the client's legal status; and
- For foreign owned IP, the IP should be licensed or assigned to a South African institution such as a university, science council or a legal entity registered with CIPC.

Kindly note that Seed Funding can only be accessed through the relevant Tech Transfer Offices(TTOs) at the various higher education institutions (HEIs).

[Apply online](#)

Refer to the [Manual](#) for instructions on how to apply for funding

Should you still require assistance you can contact our [Help Desk](#)

What we Fund

TIA will provide funding for ideas developed from any sector of the economy where:

- there exists innovative technology-based ideas for either new or improved products, processes or services;
- technologies are developed from proof of concept (TRL3) to pre-commercialisation demonstration (TRL7);
- technologies require facilitation for commercialisation at (TRL8);
- inbound technologies can be further improved, developed and exploited by South Africans themselves or in collaboration with international partners. Further technology development work must be performed in South Africa and in compliance with the Intellectual Property from Publicly Financed Research and Development Act 2008 (Act no 51 of 2008);
- there is an opportunity for the promotion and development of capacity to reduce barriers to technological innovation in South Africa through the Technology Stations and Technology Platforms Programmes.
- Assessment criteria

The assessment criteria for all applications will consider the following, among others:

- the innovativeness of the technology and/or envisaged product/process/service;
- the current stage of technology development;
- the planned path of innovation;
- the feasibility and viability of the technology being developed;
- the attractiveness of the product or service in the targeted market;
- the viability of the business model;
- the competence, capability and readiness of the team or entity to commercialise the opportunity;
- alignment with TIA strategy and national policy objectives; and
- the availability of funds.

Use of Funds

The application of TIA funding is for the sole purpose of achieving the objectives of the project investment and in line with the Guideline on Allowable Costs [Add link to Allowable Costs Document].

Notwithstanding any legal recourse that TIA may have, funding disbursed by TIA is required to be repaid immediately in full, with interest, on discovery of fraudulent or unauthorised use of funding, fraudulent non-disclosure or any other material dishonesty on the part of the recipient, its members, shareholders, employees or other persons acting on its behalf.

Restrictions

Recipients of TIA funds may not encumber, assign or cede the rights, title or interest in the intellectual property without the prior written approval of TIA.



The following will be restricted from applying to TIA for financial assistance:

- Any business where trade is forbidden by law (e.g. recreational drugs or sex trade);
- Any religious organisation;
- Any political organisation;
- Any business having directors and/or shareholders who are in contravention of any provisions of the Companies Act (Act No 71 of 2008);
- Restricted suppliers and tender defaulters on National Treasury's list;
- Any business not in good standing with the South African Revenue Service;
- Parties that have previously misused and/or defrauded TIA, and where applicable other related government departments and agencies; and
- Applicants seeking funding for co-funding where another government agency has undertaken the same project costs (double dipping).

Funding Application Stages

TIA has a three-stage application process; the Submission of Statement of Interest and Basic Assessment, Full Assessment and Approval.

Stage 1 - Submission of Statement of Interest and Basic Assessment

The applicant is required in this stage to submit the Statement of Interest (SOI), via the online application system. The Statement of Interest describes the intellectual property, commercial, team, proposed technology innovation and budget. Once the SOI have full met all the criteria, a detailed full application will be requested.

Stage 2 - Full Assessment

Once the full application has been submitted, there will be an assessment conducted to determine whether the application has submitted all the necessary information to proceed with the full assessment. The full assessment involves opportunity evaluation in commercialisation, intellectual property, technical and legal. Deal structuring and project execution plan will be developed at this stage.

Stage 3 - Approval

Approval of applications is always subject to availability of funding. Applications that preceded the full assessment stage are approved by TIA approving body.

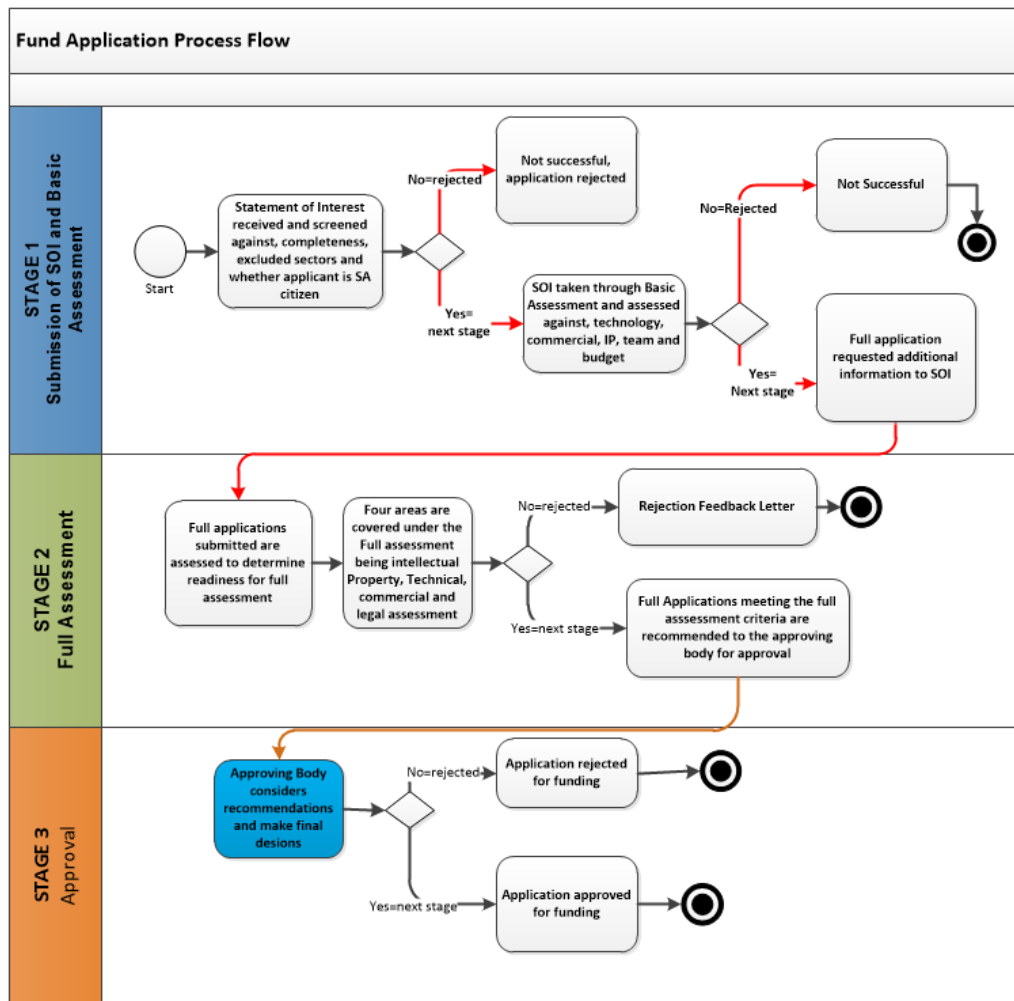
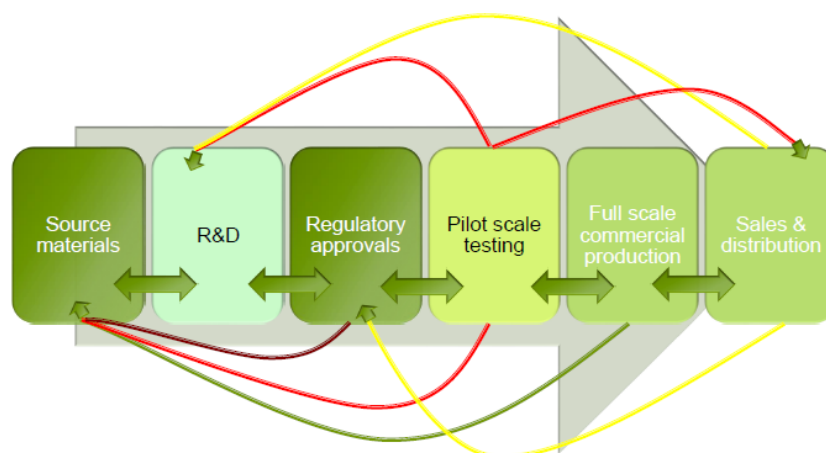


Diagram below showing typical linear understanding of the commercialisation process and the actual feedback loops and interaction of the stages experienced in biotrade product commercialisation



There is continual feedback between adjacent elements within the chain
 There is also feedback amongst elements not adjacent
 Any hold up or problem in one of these feedback loops delays product development