



**Western Cape  
Government**

Environmental Affairs and  
Development Planning

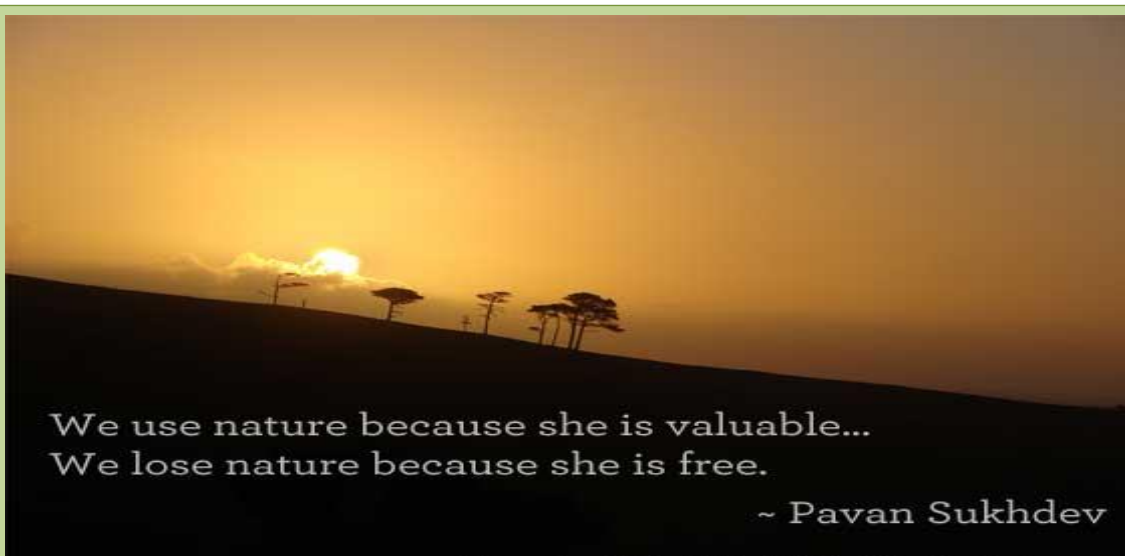
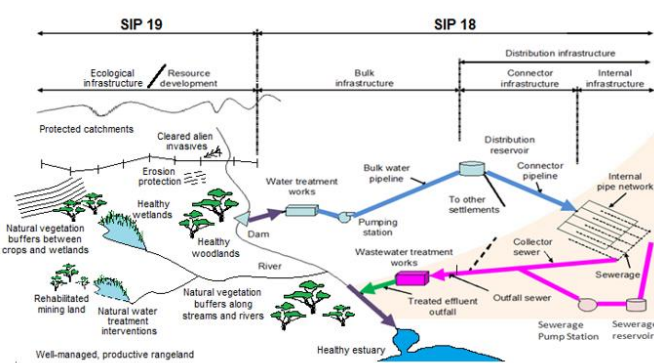
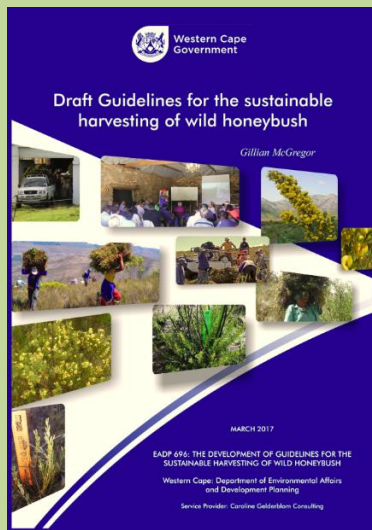
**BETTER TOGETHER.**

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# **Biodiversity Economy Programme**

## **2017-25**

**March 2017**



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# 1. Introduction

Biodiversity underpins the functioning of an economic system. It provides the goods and services that sustain life such as food, water, building materials and the air we breathe. Biodiversity also provides intrinsic values that are not always realised and valued, these include heritage values, and social values. It also serves as both a source of inputs to the economic system as well as a sink that absorbs waste from the system. Despite the value provided by biodiversity, many of its goods and services are not formally traded and do not have market prices attached to them. As a result, these goods and services may be used in an unsustainable manner. Environmental regulation serves to manage these goods and services and provides guidelines as to how to maintain sustainable biodiverse systems in the absence of fully functioning markets.

Furthermore, many areas of important biodiversity overlap with areas of human activity and settlement. This can lead to conflict. Especially relating to decisions over land use allocations and land use changes. The National Environmental Management Act (NEMA) recognises the value of natural resources and the need to protect areas considered irreplaceable for biodiversity conservation and important ecosystem services. It also recognises the need for the sustainable use of natural resources.

The Western Cape Green Economy Strategy Framework aims to position the Western Cape as the lowest carbon province as well as optimizing green economic opportunities while enhancing environmental performance. Growth in green investment and market opportunities sit at the centre of this strategic framework, supported by five drivers: Smart living & working, Smart mobility, Smart ecosystems, Smart agri-production, and Smart enterprise. The third driver, "Smart Ecosystems", speaks to aspects related to green infrastructure, ecosystem management and restoration, biodiversity management, mariculture, tourism, sustainable harvesting, conservation, education, research and human well-being.

Towards fulfilling the WC Green Economy Strategy Framework recommendations, the Directorate: Biodiversity & Coastal Management undertook the Western Cape Eco-Invest Project. Through a phased approach the Eco-Invest Project culminated in March 2016 in a Provincial Biodiversity Economy Strategy (PBES). Programme development followed in March 2017 which also elucidated the required targets, indicators, and actions to set in motion key identified biodiversity economy value chains in a programmatic approach.

The Western Cape Provincial Biodiversity Economy Programme is presented as the basis for further engagement of partners.

## 2. The PBES at a glance

### PBES VISION

By 2040, biodiversity, the natural heritage and associated ecological infrastructure is valued, wisely used, conserved and restored, and thus deliver the ecosystem services that improve the quality of life of the people of the Western Cape Province.

### OVERARCHING FIVE-YEAR GOAL

By 2020, a biodiversity - based economy contributes to inclusive and sustainable livelihoods and development opportunities.

### SOME HEADLINE INDICATORS

Headline Indicator	Specific Indicators	Sources of data to measure
Job creation	Number of jobs created (full-time, part-time)	Annual reports for CapeNature, SANBI, Other implementing partners
Economic expansion	a. Area under biodiversity economy initiatives b. Contribution to provincial revenues	Project reports Tax or incentive revenues, GDP
Equity	Number of disadvantaged people engaging in the biodiversity economy, Number of woman participating in the biodiversity economy	Project reports, Provincial statistics

### GUIDING PRINCIPLES

Socio-economic sustainability

Ecosystems have finite capacity

Ecological Resilience

Fair & Equitable Benefits from Biodiversity

Conservation of biodiversity and ecological infrastructure

Sustainable use of indigenous species

Incentive-driven compliance

Ethical practice

### CORE PBES OBJECTIVES

CO1: Biodiversity economy of the province grows by developing and unlocking the economic potential of biodiversity sector value chains

CO2: Stakeholders recognise and value the economic contribution of ecological services to the Western Cape development goals

### ENABLING PBES OBJECTIVES

EO1: Developing financing mechanisms and mobilise financial resources

EO2: Enhance research & development to support the biodiversity economy in the Province

EO3: Improve & share knowledge, and promote optimal use of technology

EO4: Enhance institutional and human capacity

EO5: Streamline markets

### 3. Background

Biodiversity and the associated ecological infrastructure is critically important in the context of the Western Cape's water security, economic growth and development, as it provides a foundation to the economy. In light of the dependencies between biodiversity and the people of the province and development pressures as well as the province's responsibility to respond to national and global biodiversity obligations in this regard, the need was identified to develop a Western Cape Provincial Biodiversity Strategy and Action Plan (PBSAP). The PBSAP aligns with the National Biodiversity Strategy and Action Plan (NBSAP) in as far as possible and it takes into account Local Biodiversity Strategies and Action Plans (LBSAPs). It further provides the framework for implementation of a number of subsidiary plans and strategies including, the Western Cape Protected Areas Expansion Strategy (2016) and the Western Cape Biodiversity Spatial Plan (2017).

The PBSAP implementation plan/ programme will contribute significantly to the attainment of Provincial Strategic Goal 4 (PSG4): enable a resilient, sustainable, quality and inclusive living environment and is a key component of the Climate Change Working Group work plan. The programme will further be used as a tool that will unify the WC Government, its departments, implementing agency (CapeNature), municipalities, partners and the local community to work together to ensure that biodiversity in the province is optimally conserved, sustainably utilised and equitably shared by all.

The compromised ability of ecosystems to provide for services to inter alia reduce the effects and damage of drought and natural disasters such as floods, fires and coastal storm surges results in significant impacts and financial cost to the Province. Climate change is predicted to increase the magnitude and frequency of such events. The Province's ecosystem assets thus require strategic and targeted investment in order to enable resilience and optimise nature-based solutions for meeting the challenges of development in the future.

As a result of these challenges and the current national and provincial policy environment (the development of both the national and provincial biodiversity strategies and action plans and the National Biodiversity Economy Strategy), the Western Cape Department of Environmental Affairs and Development Planning (DEADP) developed a Provincial Biodiversity Economy Strategy (PBES). The aim of this Strategy is to recognise the importance of natural resources and systems in driving the improvement of people's lives and the growth of the economy in the Western Cape.

The sub-Directorate: Biodiversity initially undertook the Western Cape Eco-Invest Project. Phase I of the project, launched in the 2013/14 financial year aimed at investigating priority ecosystems and the potential of obtaining private sector investment into biodiversity and ecosystems goods and services and was completed at the end of March 2014. Phase II, which commenced in 2014/15, aimed at assessing the state of readiness of a number of identified priority nature-based economy supply chains in the Western Cape, and sought ways to advance investment into those sectors and was completed on the 31st March 2015. Phase III explored the findings of Phases I and II and established a Biodiversity Economy Strategy (BES) setting out the required actions to unlock key identified biodiversity economy



value chains. The process of developing the Provincial Biodiversity Economy Strategy (PBES) commenced in January 2016 and after the required stakeholder engagements and workshops, the final Draft PBES was delivered on 22nd March 2016.

The PBES articulates with the overarching Provincial Biodiversity Strategy and Action Plan (PBSAP) and its implementation plan signed off by the Head of the Department on 28 March 2017. The PBES forms one of the core strategic objectives of the PBSAP (Strategic Objective 3 being "A biodiversity based economy contributes to inclusive and sustainable livelihoods and development opportunities"). In tandem with the PBSAP implementation plan, the Biodiversity Economy Programme was also developed by the Department and CapeNature through a series of workshops. Through continued consultation with CapeNature the Directorate: Biodiversity & Coastal management incorporated all relevant inputs in the development of the Provincial Biodiversity Economy Programme.

## 4. PBES Core Objectives – Targets, Indicators, Actions & 5 year programme

<b>PBES CORE OBJECTIVE 1</b>
<b>Biodiversity economy of the province grows by developing and unlocking the economic potential of biodiversity sector value chains</b>
<b>PBSAP Strategic Objective 3 (SO3): A biodiversity-based economy contributes to inclusive and sustainable livelihoods and development opportunities</b>
<b>SO3 Scope: Focus is on promoting equitable access to biodiversity and heritage resources and assets as well as on a biodiversity-based economy that contributes to inclusive and sustainable livelihoods and development opportunities</b>

### 4.1 PBES Core Objective 1: Biodiversity economy expanded, strengthened and inclusive

<b>Outcome 1: Opportunities from the biodiversity economy are expanded, strengthened and are progressively inclusive of all sections of society</b>		
<b>Targets</b>	<b>Indicators</b>	<b>Actions</b>
950 work opportunities are created through biodiversity related programmes annually	Number of work opportunities created through environmental programmes	Create work opportunities through environmental programmes
450 full time equivalents are employed every year	Number of full time equivalents employed	Employ 450 FTEs
15 SMMEs are supported annually	Number of SMMEs supported	Support the establishment and growth of SMMEs in the biodiversity economy sector

#### 4.1.1 Natural Resources Products

Natural resources products like honeybush, medicinal plants, honey, and cut flowers are under threat from over-exploitation and habitat damage due to harvesting practices. This sector seeks to develop sustainable economies where threats to the species or its ecosystems can be alleviated and an improvement in landscape function can be effected. It simultaneously provide opportunities for livelihoods, enterprise development and agro-processing

##### **a) Work Opportunities and SMME Development (EPIP, EPWP, CWP and others)**

2016 – 17: Co-ordinate with activities of CapeNature's Income Generation Strategy

2017 – 18: Provide a platform for community participation

2017 – 20: Funding, project development and implementation

**(DEA&DP and CapeNature and local government)**

##### **b) Bioprospecting - Natural products development and commercialisation**

2016 - 17: Co-ordinate with Bioprospecting Forum and other relevant sectors (DoA, DEDAT)

2017 – 18: Develop strategic workgroup for the Bioprospecting sector

2017 – 19: Implement sustainable harvesting strategy for the wild flower industry that advances Export markets (DoA, DEDAT, FVCT)

2017 – 18: Establish key species and develop concept plans for product development

2017 – 19: Determine impact and develop M&E for sustainability of specific markets

2017 – 18: Determine strategic uptake areas and community priorities

2017 – 19: Budget projects and apply for funding

2018 – 20: Implement Bioprospecting projects in support of SMME's in the BE sector

##### **c) Establish Honeybush Industry CoP**

2016 - 17: Co-ordinate with industry and public sector and guide development of the CoP

2016 – 17: Develop draft guidelines for the sustainable harvesting of wild honeybush

2017 – 18: Produce popular version of harvesting Guidelines and translate into Afrikaans

2017 – 18: Develop guidelines for legislative and permitting processes (cultivation & wild harvest)

2018 – 19: Develop communication strategy and implement Guidelines

2017 – 20: Monitor sustainability and develop industry initiatives and transformation

**(DEA&DP, /SAHTA/DoA)**



**d) Bitou Agroforestry BBBEE – SMME Natural products business development**

2016 - 17: Co-ordinate with Kranshoek and Harkerville stakeholders and develop projects  
2016 - 17: Broker initial business deals to establish “pull economy”  
2016 - 17: Develop Investment Portfolio (business structures) – Kranshoek/Harkerville  
2017 - 18: Bitou Agroforestry – implement business training and develop Agro-processing  
2018 - 20: Develop and implement marketing plan – agro-processing systems

**e) Agro-processing and SmartAgri approach**

2016 - 17: Identify key Bioprospecting sectors to benefit with Agro-processing  
2017 - 18: Co-ordinate with DEDAT, DoA, regarding projects and opportunities

**f) Honey and bees (with CoCT, DoA, Mike Allsop, etc)**

2017 - 18: Establish Honeybee Workgroup  
2017 - 18: Develop situational analysis and develop sustainability framework  
2018 - 19: Develop pilot community projects

#### 4.1.2 *Ecological Infrastructure Value Chains*

Ecological infrastructure projects address potential economies associated with the improvement or support of ecosystems that deliver goods and services. This sector harmonises with SIP 19 objectives, Ecosystems based Adaptation (EbA) and SmartAgri approaches. There is significant scope for job creation and enterprise development whilst ensuring that key value elements of ecosystems like water, soil, carbon, biomass and protection are enhanced.

**a) Wildlife sector development (Game utilisation from CapeNature’s Income Generation Project)**

2016 - 20: Support and facilitate National wildlife sector initiatives  
2017 - 18: Establish pilot site feasibility for wildlife economy BBBEE  
2017 - 18: Co-ordinate with land reform (DRDLR) – wildlife industries – land restoration  
2017 - 19: Establish potential/feasibility at DCCP and Southern Cape Pilot sites

**b) Alien and Biomass Economies**

2016 - 17: Co-ordinate with ACRAE to establish strategic focus areas  
2017 - 18: Develop pilot projects with DEDAT, DoA, etc

### **c) Functional landscapes and forestry exit areas**

2017 – 18: Co-ordinate with western Cape Forestry Village Committee to determine status and needs of Forestry Villages

2018 – 19: Develop concept ideas for Forestry Village biodiversity economies

2017 – 20: Establish areas for further roll-out and pilots in exit areas

### **d) Water - Water pricing and payment for ecosystem services (Water Fund)**

2016 – 17: Co-ordinate with other EbA and Smart Agri sectors

2017 – 18: Establish project rationale for Keurbooms catchment with Bitou Municipality

2018 – 19: Funding and pilot project

#### **4.1.3 Ecotourism**

Ecotourism offers excellent opportunities for enhanced economic development through delivering nature based activities in pristine environments. Mostly reserve based it is a way to increase income (also for reinvestment in biodiversity management), sustainable access, job opportunities and the development of adjacent communities. It is mostly a CapeNature function and will coordinate with DEDAT.

### **ECOTOURISM**

#### **Nature reserves and ecotourism**

(CapeNature reserves and ecotourism but also DEDAT inputs and measures)

#### **a) Adventure tourism (including marine tourism??)**

2017 – 18: (From CapeNature's GE report)

#### **b) Wildlife sector development (Hunting)**

2017 – 18: (From CapeNature's GE report)

#### **c) Multipurpose centre**

2017 – 18: (From CapeNature's GE report)

#### **d) Destination filming**

2017 – 18: (From CapeNature's GE report)

## 4.2 PBES Core Objective 2: Recognise and value the economic contribution of ecological services

<b>PBES CORE OBJECTIVE 2</b>
<b>Stakeholders recognise and value the economic contribution of ecological services to the western Cape Province's development goals.</b>
<b>PBSAP SO3 - Outcome 2: The business case for conservation and sustainable use of biodiversity and its associated contribution to the economy and development goals of the province is recognised and appreciated by an increasing number of key decision makers and stakeholders</b>

### 4.2.1 PBES Biodiversity Economy Business Case

A key aspect of realising the biodiversity economy is the development of knowledge, sharing it and using it to plan for future opportunities and decision support related to biodiversity and ecological infrastructure. This sector aims to develop an understanding of the biodiversity economy and the potential value that it can contribute to equitable and resilient living environments.

Targets	Indicators	Actions
By 2020 the scope, the value and the growth potential of the biodiversity-based economy of the province is determined	A biodiversity economy strategy and programme (PBES) is in place	Communicate the PBES to key decision makers and stakeholders
By 2020 there are increased incidences of endorsements or facilitation of investment in priority ecological services	Rand value of biodiversity economy as defined in the PBES is determined Increased incidences of endorsement or facilitation of investment	Communicate to key decision makers the outcomes of implementation of the PBES on an ongoing basis
By 2020, there are a number of formalized mechanisms which incorporates the value of ecosystem goods and services	Priority ecological infrastructure assets identified	

## **BIODIVERSITY ECONOMY BUSINESS CASE**

### **Annual and 5 yearly outputs and responsibility**

#### **a) PBES Mainstreaming and capacity building**

2016: Complete and publish PBES

2016 – 20: Disseminate through capacity building

2017: Develop case studies of positive outcomes of PBES

2016 – 20: Incorporate into PBES

**(DEA&DP)**

#### **b) Socio-ecological baselines are established**

2017 -18: Assess value chains and focus areas to determine BE projects for assessment

2017 – 18: Select key projects for Socio economic baseline assessment and plan implementation

2018 - 19: Develop ToR, apply for funding and appoint socio-ecological expertise

2019 – 20: Report on key Social-ecological impacts for select projects

#### **c) Restorative agriculture (Holistic management)**

2016 - 17: Develop workgroup with current practitioners and interested parties

2017 - 18: Host workshop with current role players and practitioners

2017 – 18: Determine work plan for making the case (Soil water, soil carbon, pred/prey)

2018 – 19: Develop pilot projects and carbon assessment regimes (including novel approaches for carbon baseline approaches)

2019 - 20: Implement restorative agriculture pilot project (Transformation/Land Reform)

#### **d) Development of biomimicry learning centres**

2017 - 18: Establish workgroup and initiate Biomimicry concept with relevant stakeholders

2017 - 18: Develop concept Plan for Biomimicry learning centres (Tsitsikamma/Winelands)

2017 - 18: Conduct feasibility study Tsitsikamma Biomimicry centre (Forest hall?)

2018 – 19: Crowd in stakeholders and apply for funding for pilot Biomimicry course/project

2019 – 20: Run biomimicry courses in support of spawning provincial BE projects

#### **e) Water**

##### **Water Fund concept tested for Atlantis aquifer and scaled up for Breede catchment**

2017 – 18: Making the case for investment by private sector in EI supporting water resources for the Atlantis aquifer

2018 – 19: Develop concept for the Breede catchment

##### **Water/ICM – land owners are investing in ecological infrastructure (Enhanced organisational capacity and investment in EI in the Berg and Breede Catchment have improved water resource management)**

2017 – 18: Coordinate with GEF 6 Steering committee and engage with projects initiation

2018 -19: Approach GEF 6 with project concepts for funding

2018 – 20: Implement funded water/EI/ICM projects

#### **f) Estuaries – municipalities invest in the management of estuaries**

2017 – 18: Conduct Cost benefit analysis for Breede River estuary

2018 - 20: Inform the institutional capacities and investments of relevant management authorities

#### **g) Ecological Infrastructure Investment Framework (EIIF) (“WC SIP19”)**

2017 - 18: Coordinate and incorporate ACRAE CoP concept

2017 – 18: Initiate the development of a WC Ecological Investment Framework

2017 – 18: Liaise with stakeholders (SALGA, Municipalities, DEA&DP, CapeNature) to establish municipal-level Ecological Infrastructure Investment Plans

2019 – 20: Integrating with BSP to plan for priority EI investment & projects

2019 – 20: Planning & decisions support leads to resilience of ecosystem services

#### **h) Investment and asset class**

2017 – 18: Develop workgroup – Liaise with DEDAT (H. Davies)

2018 – 19: Establish partnership to pursue ecosystems Services asset class

#### **i) Develop Alien Biomass Value Added Initiatives**

2016 – 17: Establish interest and workgroup towards Alien biomass economies (ACRAE)

2017 – 18: Coordinate with ACRAE CoP regarding biomass economy value chains

2018 – 19: Roadmap (Alien Biomass Economy strategy and ABE implementation plan)

2018 – 20: Implement annual strategies and plans

**(DEA&DP)**

**j) Develop Intervention Strategy for Carbon Economy**

2017 - 18: Establish workgroup with the intention of developing a CoP for Carbon Economies

2017 – 18: Develop the CoP, communication and information portal

2017 – 18: Strengthen and support "Jobs for Carbon" Spekboom projects

2017 – 20: Implement annual strategies and plans

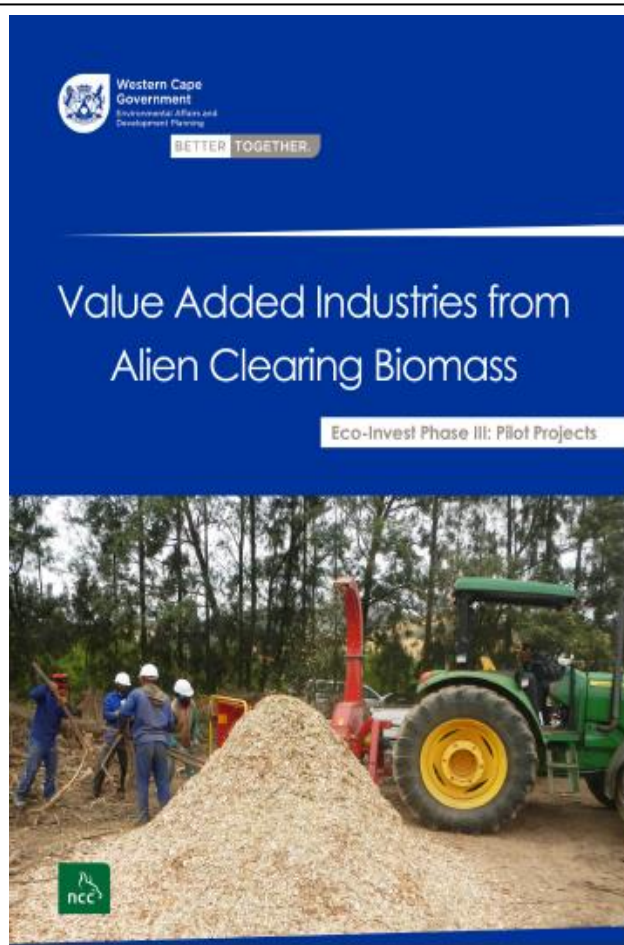
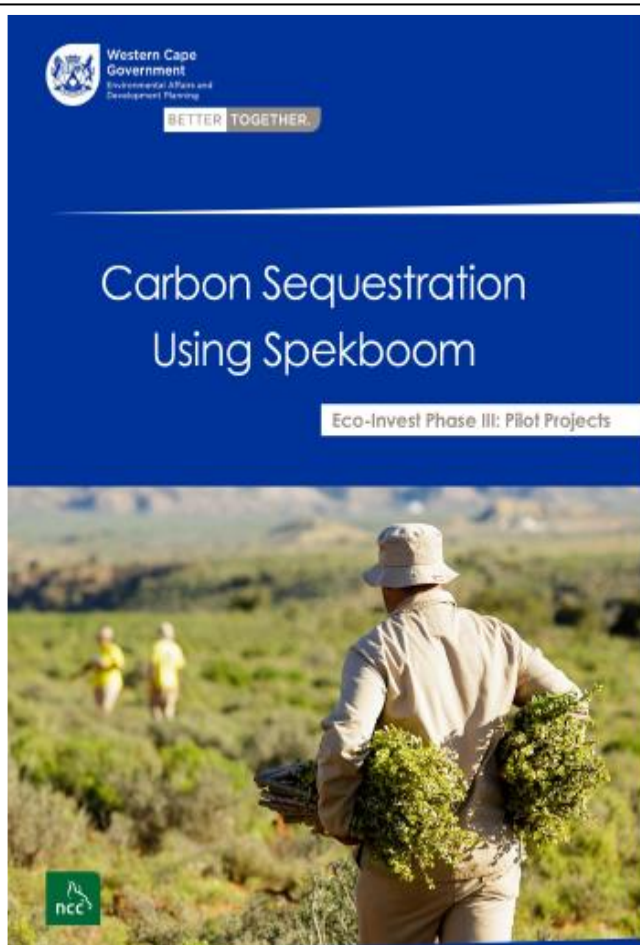
**(DEA&DP)**

**k) Carbon markets established – EBA/SmartAgri sequestration**

2017 – 18: Calculate freed-up water from Keurbooms Catchment (KC) clearing

2018 – 19: Establish the baseline and basis for potential KC Carbon sequestration

2017 – 19: Support existing projects by Brokering carbon offsets





## 4.2.2 Biodiversity Economy Five-year Programme

The Provincial Biodiversity Economy Programme needs to be shared and developed with all relevant partners from National to Provincial Departments and further to Municipalities and communities. Through regular review and taking action on identified biodiversity economy opportunities in a programmatic approach the PBES will stay relevant and contribute to the long term strategic provincial goals.

Targets	Indicators	Actions
By 2020, the PBES is integrated into the Green Economy Strategy	PBES references in the Green Economy Strategy Framework	Finalise and implement a Provincial Biodiversity Economy Strategy and Programme (PBES)
By 2020, markets for prioritised biodiversity services and products that promote inclusive and sustainable growth of the biodiversity economy, are established	Priority biodiversity economy services and products identified	Develop regional institutional capacity for the sustainable development of natural products
By 2020, incentives and guidelines promoting inclusive and sustainable development or priority biodiversity economy sectors is in place	Number of incentive programmes and/or guidelines in place	Develop guidelines for the sustainable development of the Honeybush industry

### **a) PBES Programme (5 year)**

2016 - 17: Budget for Biodiversity Economy Programme

2016 - 17: Implementation Plan for 17/18

2018 – 20: Provide Implementation Plans for subsequent years

**(DEA&DP)**

### **b) Develop Biodiversity Economy Phakisa Outcomes**

2017 - 18: Co-ordinate WC region and requisition research

2017 - 18: Help develop plans and facilitate partnerships

2017 – 20: Disseminate through capacity building

**(DEA&DP, CapeNature with, DEDAT)**

### **c) Broker relationships for biodiversity Economy Market Access**

2017 - 18: Guide biodiversity economy development in the Western Cape

2017 – 18: Co-ordinate with CapeNature Income Generation

2017 – 18: Broker guide for further project development

2017 – 20: Disseminate through capacity building

**(DEA&DP, CapeNature with GreenCape)**

## **5. Conclusion**

The Provincial Biodiversity Economy Programme is an evolving product that should inform and direct the Western Cape Government, its departments, implementing agency (CapeNature), municipalities, partners and the local community to ensure that the biodiversity economy in the province contributes to improved resilience of ecosystems, communities and infrastructure. Through targeted interventions and investment the Programme aims to deliver on a biodiversity-based economy that contributes to inclusive and sustainable livelihoods and development opportunities.

The Provincial Biodiversity Economy Programme will be reviewed on an annual basis and a report will be submitted annually on the progress of the programme and progress in implementing priority projects. The Programme is presented as the basis for further engagement of partners.