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# Eastern Africa's Manufacturing Sector

Promoting Technology, Innovation,  
Productivity And Linkages



**SEYCHELLES COUNTRY REPORT**  
**October 2014**



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# EASTERN AFRICA'S MANUFACTURING SECTOR

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innovation, productivity  
and linkages**

# **EASTERN AFRICA'S MANUFACTURING SECTOR - SEYCHELLES COUNTRY REPORT**

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## **THE AFRICAN DEVELOPMENT BANK GROUP**

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## ABBREVIATIONS

AfDB	African Development Bank
ALDEC	Adult Learning and Distance Education Centre
CMA	Customs Management Act
COMESA	Common Market of Eastern and Southern Africa
DBS	Development Bank of Seychelles
DEDBI	Department of Entrepreneurship Development and Business Innovation
EARC	East African Resource Centre
EEZ	Exclusive Economic Zone
EMS	Export Marketing Scheme
EPA	Economic Partnership Agreement
EPDF	Export Development and Promotion Facility
EU	European Union
EUR	Euro
FDI	Foreign Direct Investment
FPA	Fisheries Partnership Agreement
GDP	Gross domestic product
GST	Goods and Services Tax
GVC	Global value chain
HDI	Human Development Index
HHI	Herfindahl-Hirschman Index
HR	Human Resources
HS	Harmonized System
ICT	Information and Communication Technologies
IEPA	Industrial Estate Properties Agency
IMF	International Monetary Fund
IOC	Indian Ocean Commission
IOT	Indian Ocean Tuna
IOTC	Indian Ocean Tuna Commission
IPR	Intellectual Property Rights
ISIC	International Standard Industrial Classification of All Economic Activities
ITC	International Trade Centre
ITZ	International Trade Zone
LMIS	Labour Market Information System
LWMA	Landscape and Waste Management Agency
MLUH	Ministry of Land Use and Housing
MPDI	Manufacturing Product Diversification Index
MTC	Maritime Training Centre
MVA	Manufacturing value added

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NBS	National Bureau of Statistics
NDS	National Development Strategy
NEER	Nominal Effective Exchange Rate
PIE	Providence Industrial Estate
PSIP	Public Sector Investment Plan
PUC	Public Utilities Corporation
R&D	Research and Development
RCA	Revealed Comparative Advantage
REER	Real Effective Exchange Rate
SADC	Southern African Development Community
SBFA	Small Business Financing Agency
SBS	Seychelles Bureau of Standards
SCCI	Seychelles Chamber of Commerce & Industry
SEnPA	Small Enterprise Promotion Agency
SFA	Seychelles Fishing Authority
SIB	Seychelles Investment Board
SIBA	Seychelles International Business Authority
SIC	Seychelles Industrial Classification
SIT	Seychelles Institute of Technology
SITC	Standard International Trade Classification
SITZ	Seychelles International Trade Zone
SLA	Seychelles Licensing Authority
SMB	Seychelles Marketing Board
SMEs	Small and Medium-sized Enterprises
SRC	Seychelles Revenue Commission
STC	Seychelles Trading Company
SWOT	Strengths, Weaknesses, Opportunities and Threats
TVET	Technical and Vocational Education and Training
ULC	Unit Labour Cost
UN	United Nations
UNDP	United Nations Development Programme
UNIDO	United Nations Industrial Development Organisation
USD	United States Dollar
VAT	Value Added Tax
WDI	World Development Indicators
WEF	World Economic Forum
WTO	World Trade Organization



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This country report was prepared as part of a regional assessment of the manufacturing sector in Eastern Africa covering seven countries – Burundi, Ethiopia, Kenya, Rwanda, Seychelles, Tanzania and Uganda – commissioned by the African Development Bank (AfDB), East African Regional Resource Center (EARC). The report was task managed by Dr. Tilahun Temesgen, Chief Regional Economist, EARC. Overall guidance was received from Mr. Gabriel Negatu, Director, EARC, Nairobi, and Messrs. Abraham Mwenda and Stefan Muller, Lead Economists, EARC. The document was prepared by Emmanuel

Baudelet, consultant and country expert, and reviewed by Derk Bienen, BKP Development and Dr. Tilahun Temesgen, AfDB/EARC. Natassia Ciuriak, BKP Development provided editorial assistance. AfDB staff who provided important inputs and peer-review comments included Ms. Susan Mpande.

The study was supported by Government of Seychelles, in particular the Department and Entrepreneurship, Business and Innovation, the Ministry of Natural Resources and Industry and the Ministry of Finance, Trade and Investment, as well as other agencies. The financial contributions from KOAFEC in undertaking the study is acknowledged and greatly appreciated.

## FOREWORD

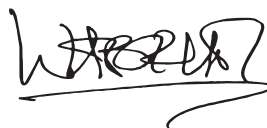
Over the last five years, the Government of Seychelles has embarked on major transformative economic reforms aimed at making the country a more fiscally stable and private sector driven economy. Significant efforts have been undertaken in this regard, laying the path to meet these national objectives.

This Seychelles country report, which is part of a regional study covering seven countries in Eastern Africa, provides a contextual analysis of the manufacturing sector and proposes some recommendations to assist the Government in facilitating the sector to be a sustainable and stronger economic pillar of the country.

The African Development Bank recently adopted a Ten Year Strategy (2013-2022) and a Private Sector Development Strategy (2013-17) for Africa that set out the private sector's role in catalyzing the continent's economic transformation process and the urgency of private sector development to support this process. Therefore the country report is timely as it informs the Bank and Government about unleashing the potential role of private sector in economic transformation and inclusive growth. Production of the country report is also timely for the following reasons: the Government has been

undertaking public sector reforms to enhance the role of business development and SME support institutions and departments; it discusses the still on-going economic reforms, which emphasize second generation policy issues focused on increasing efficiency; and most importantly the Government is drafting its Medium Term National Development Strategy, which will provide an overarching goal for the country.

The African Development Bank's East Africa Resource (EARC) is grateful for the close collaboration received from the Government, in particular the Office of the Presidents's Department of Entrepreneurship Development and Business Innovation (DEDBI) in the preparation of this report. The Bank hopes that recommendations of the report can contribute towards strengthening the on-going policy review, particularly, of the industrial Policy and Strategy and facilitating national dialogue in this area.



GABRIEL NEGATU  
Regional Director  
EARC



## EXECUTIVE SUMMARY

The Seychelles face the limitations and constraints typical of Small Island States that have few inhabitants, are remote from the mainland, and have limited natural resources. Its economy is heavily dependent on two sectors, namely tourism and fisheries. This dependence makes the country extremely vulnerable not only to global developments, but also to the political or commercial decisions of its partners or environmental damage. Nonetheless, Seychelles has successfully managed to achieve high living standards.

The Seychelles economy has opened up considerably in the last decade, transitioning from state intervention to market-based economic policies. In terms of structure of the economy, the services sector has a dominant and growing share while industry and manufacturing have declined substantially since 2000, with manufacturing's share falling from almost 20% to about 8%. The agricultural sector is very small.

Seychelles' Manufacturing Value Added (MVA) per capita, which used to be the highest in Africa, has significantly declined in the last ten years and is now below the MVA per capita of countries such as Mauritius or South Africa (but still well above the regional average). The share of manufacturing employment in total employment has also declined but at a slower rate than MVA, which indicates a decrease in labour productivity (although labour productivity in Seychelles' manufacturing sector is still higher than the regional average).

Resource-based manufactures account for about three quarters of Seychelles' total manufacturing output: very limited low-technology or medium-technology products are currently being manufactured in Seychelles, and no high-technology products. The manufacturing output is indeed dominated by food products (in particular processed fish or fish products) and beverages. Other products manufactured in Seychelles include, inter alia: metal cans, specialised orthopaedic appliances, building materials, paint products, coconut oil and essential oils, crafts and jewellery. Seychelles manufactured products are generally not competitive because most inputs – e.g. raw materials, packaging materials, cardboard boxes, sugar – have to be imported (which inhibits manufacturers to achieve competitive prices), and production costs are high. Also, quality of output needs to be improved to increase chances of penetrating export markets.

The manufacturing sector comprises mostly of SMEs. Indian Ocean Tuna is the largest company: it is the second largest tuna canning factory in the world, the largest single employer in Seychelles and accounts for most of the country's merchandise exports. In terms of spatial patterns, almost all manufacturing activities are concentrated on the main island of Mahé. There is potential for the development of manufacturing activities on the Outer Islands but transportation costs and the difficulty in recruiting workforce to work on these islands are significant constraints.

Although the manufacturing sector declined both in terms of value added and employment, Seychelles' manufactured exports have experienced a steady and strong growth since 2001. The share of manufactured exports in Seychelles' total merchandise exports is high (more than 95%) and well above the regional average. However, this is mostly due to significant exports of processed or preserved fish or fish products which represent the bulk of manufactured exports: canned tuna alone accounts for more than 90% of total merchandise exports. Processed fish and fish products is thus the only manufacturing sub-sector where Seychelles can currently be said to have a comparative advantage. Other than processed or preserved fish or fish products, the only significant manufactured export are specialised orthopaedic appliances. While rum exports have grown in the last five years, the value of these exports is still very small.

Seychelles has also made little progress in recent years in diversifying its export markets – more than 90% of exports are to the EU. Seychelles' geographical position, topography and small population are clearly significant constraints to diversification and structural transformation – but efforts should be pursued to reduce the dependence on a small number of products and markets as this dependence makes the country highly vulnerable to external shocks.

The analysis of the various enablers (or disenablers) for the manufacturing industry and their impact on the performance of Seychelles' manufacturing sector reveals the following:

- Legal and regulatory environment: The legal and regulatory environment does not constitute a binding constraint for the manufacturing sector in Seychelles. In response to this, no fundamental overhaul is required, and needed improvements are rather incremental.
- Industrial, innovation and manufacturing sector policies: Seychelles currently does not have an updated strategic policy document to guide the Government's policies as regards the manufacturing sector: the Industrial Policy dates back to 1996 and is no longer relevant because at the time the economy was relatively closed. A revised Industrial Policy is under preparation and expected to be completed in the second quarter of 2014. The Government does not target any specific manufacturing sector: rather, the focus is on small-scale/light manufacturing in general – as opposed to heavy industries – and on promoting value addition.
- Incentives for the manufacturing sector: With scarcity of land being a major constraint for the development of the manufacturing sector in Seychelles, most Government incentives for the sector focus on the provision of land for manufacturing purposes (including through land reclamation works). Specific incentives in the form of tax concessions are also provided to agricultural and fish-processors. In addition, a specific offshore regime was set

up through the Seychelles International Trade Zone, which targets export-oriented companies and aims to combine the benefits of a free port and an export processing zone.

- Support institutions: A large number of support institutions exist but some key institutions do not seem to have the capacity to fully deliver the targets and policies under their responsibility. Coordination and information sharing between the various relevant agencies is also not optimal.
- Infrastructure (Energy, Water, Transport and Communication): The cost of utilities (electricity and water) is a significant constraint for manufacturing firms. The country's great reliance on imported energy renders the cost of energy relatively high and volatile: in this context, Seychelles aims to diversify its energy mix and develop renewable energies. Both the telecommunications and transport infrastructures are relatively efficient: they therefore do not constitute binding constraints for the manufacturing sector.
- Trade logistics: Seychelles performs relatively well in terms of trading across borders.
- Access to finance: Bank lending to the private sector is limited and focuses on other sectors than manufacturing. Commercial banks charge relatively high interest rates and have tended to neglect SMEs, as they were perceived to entail a high default risk. The various schemes developed by the Government and the existing government finance institutions have so far not managed to fully address this gap: this has significantly affected the ability of manufacturing SMEs to expand.
- Education, training and skills level: The limited availability of labour is in general a serious constraint in Seychelles and the lack of technical and specialised skills (including supporting professional services) is particularly affecting the manufacturing sector. In this context, the recruitment of expatriate labour is sometimes imperative. The Government has made efforts to improve the availability of technical and vocational training but it is currently insufficient to address the skills gap. Also, university-industry linkages are currently very limited.

Seychelles now potentially faces a middle income trap, with limited opportunities to attain high-income status, held back in part by its geographical position, topography and small population, which make a major transformation of the Seychelles' economy difficult. In spite of these constraints, there is potential for the country to further develop its (small-scale) manufacturing base and in particular:

- Add more value to its resource-based manufactures through further processing of the resource, and thus move up the value chain, while at the same time capitalising more on the Seychelles' "brand", i.e. the country's positive image in terms of nature and pristine environment;
- Move into the production of more low-technology,

medium-technology or high-technology products (as opposed to resource-based manufactures, which currently dominate the country's manufacturing sector);

- In general, target and exploit niche markets (when niche opportunities exist, low business costs become less critical for attracting investment).

Any vision for the Seychelles' manufacturing sector needs to be based on the preservation of the natural environment which constitutes the basis for the country's two economic pillars, fishery (and downstream industries), and tourism. A major structural transformation of Seychelles' manufacturing sector in terms of its sectoral composition is not recommended. However, there is scope to revitalise the manufacturing sector which had shrunk reflecting the shift in comparative advantage towards services and the policy of maintaining an over-valued exchange rate. What is needed is a structural transformation of the way in which the manufacturing sub-sectors are organised and operate. The manufacturing sector should continue to be considered as one important ingredient in a diversified – as diversified as possible, given Seychelles' natural constraints – economy. Value-chain participation offers the best prospects for such diversification on a scale commensurate with the Seychelles' size.

Seychelles is now approaching the innovation-driven stage of development and it needs to lay the fundamentals for higher-value added growth. Linkages between the university and manufacturers (and agricultural producers) would need to be developed: University-linked industry clusters could be established with a view to achieving innovation targets. Also, as a Small Island State, the Seychelles needs to offset its geographic constraints through integration with larger economies: Seychelles is faced with significant diseconomies of scale but the regional market capacity could precisely support the exploitation of economies of scale.

Based on the findings of the study, we provide in section 4 of this report a roadmap/action plan to strengthen the role of manufacturing as a dynamic force of economic development and transformation in Seychelles, consisting of:

- Horizontal policies in the following areas:
  - Manufacturing strategy and policy;
  - Infrastructure: Energy, Transport and Communication;
  - Support institutions;
  - Improvement of the quality infrastructure;
  - Access to finance;
  - Innovation and linkages;
  - Education, training and skills level;
  - Regional integration and export development;
- Sectoral/vertical policies for three specific sub-sectors:
  - Processing of fish and fish products;
  - Agriculture-based processing: essential oils and coconut oil;

Other non-traditional agriculture based manufacturing.



## INTRODUCTION

Following a competitive tender procedure, the African Development Bank's East African Resource Centre (EARC) has awarded to BKP Development Research & Consulting GmbH the contract to undertake a study titled "Eastern Africa's Manufacturing Sector: Promoting Technology, Innovation, Productivity and Linkages".

The study comprises of seven country reports (on the manufacturing sectors of Burundi, Ethiopia, Kenya, Rwanda, Seychelles, the United Republic of Tanzania, and Uganda, hereafter, study countries) and a regional report. Its objective is to contribute to the process of analysis and policy formulation by:

- Producing a diagnostic and analytical assessment of the current status of the manufacturing sector in the seven study countries as well as in the Eastern African region;
- Identifying binding factors, constraints, opportunities and strengths for the development of the sector in Eastern Africa; and
- Providing country specific and region-wide recommendations (reforms, policies, strategies, etc.) to strengthen the role of manufacturing as a dynamic force of economic development and transformation in each country as well as the region as a whole.

The study's target group includes policy makers in each of the study countries, development partners, relevant regional economic communities (RECs) and the private sector itself, which might use the study results both to assess its competitive edge in manufacturing and to define its positions for public-private dialogue (PPD).

The present Seychelles country report was prepared based on mix of quantitative data analysis (based on existing databases) and qualitative analysis (based on a combination of desk research of policies and studies, and stakeholder consultations). The stakeholder consultations were conducted firstly during a field mission in Seychelles from August 12<sup>th</sup> to August 20<sup>th</sup> 2013 and secondly during a national validation workshop on November 12<sup>th</sup> 2013. Key stakeholders consulted included representatives of public sector organisations (ministries, agencies, support institutions) relevant for the industrial and manufacturing sector, as well as representatives of private sector organisations and individual manufacturing companies.

### The report is structured as follows:

- In Section 1, the current status of the manufacturing sector in Seychelles is analysed, in particular in terms of production volumes, contribution to GDP and employment, exports, etc. and the trends over the past ten years;
- In Section 2, we look at how enablers impact on the performance of manufacturing and discuss product diversification and structural transformation issues, with a view to analyse in further detail the competitiveness and comparative advantage of Seychelles' manufacturing sector;
- In Section 3, policy options to harness opportunities and easing the constraints to manufacturing in Seychelles are discussed;

Finally, Section 4 presents policy recommendations (reforms, policies, strategies) and implementation plans for (remedial) short-, medium-, and long-term policy actions.





# 1. THE CURRENT STATUS OF MANUFACTURING IN SEYCHELLES

## 1.1 Overview of Economy

The Republic of Seychelles is a 115-island country, covering a wide geographical area in the Indian Ocean. Its estimated population of 87,780<sup>1</sup> is the smallest population of any African state.

The Seychelles face the limitations and constraints typical of Small Island States that have few inhabitants, are remote from the mainland, and have limited natural resources. Its economy is heavily dependent on two sectors, namely tourism and fisheries. This dependence makes the country extremely vulnerable not only to global developments, but also to the political or commercial decisions of its partners or environmental damage (since the two main sectors are closely linked with the quality of the natural and physical environment). Nonetheless, Seychelles has successfully managed to achieve high living standards: the country is ranked first in Africa in the Human Development Index<sup>2</sup> and had the second highest GDP per capita in Africa in 2012<sup>3</sup>.

The Seychelles economy has opened up considerably in the last decade, transitioning from state intervention to market-based economic policies. In 2005, trade was liberalised with deep cuts in import tariffs and removal of all permit requirements for the export of goods. Today, more than 94% of all tariff lines are set at zero, with an

average tariff of 4.6% on agricultural products and 0.3% on non-agricultural products.

The country is currently recovering from a serious debt crisis in 2008, when external debt reached 170% of GDP, which was the highest in the world, and Seychelles could no longer meet its public debt obligations. Since then, the government has engaged in a comprehensive macro-economic reform programme supported by the IMF with the objective of reducing public debt to 50% of GDP by 2018. External debt has been restructured and is now much less of a burden on its economy. Seychelles' GDP grew by 2.9% in 2012, which is less than the previous year's 5% but was considered positive given the uncertain global environment.

Following the severe balance of payment crisis and the depletion of the official reserves, Seychelles also fully liberalized its foreign exchange market and moved from a fixed exchange rate (the Seychelles Rupee was pegged to the US dollar) to a floating exchange rate in November 2008.

As shown in Table 1, the Seychelles Rupee has substantially depreciated since 2002, both in terms of nominal effective exchange rate (NEER) and real effective exchange rate (REER). This made the country's exports (including tourism) more competitive but also made imports – on which the small economy is heavily dependent – more expensive. The yearly values of the NEER and the REER have stabilised to some extent since 2009 but the country still faces exchange rate instability.

**Table 1: Seychelles Rupee's nominal and real effective exchange rate, 2000-2012 (2007 = 100)**

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Nominal effective exchange rate (NEER)	135.6	139.4	149.4	138.5	128.5	127.7	126.9	100	69.6	50.9	56.8	53.5	50.4
Real effective exchange rate (REER)	141.8	149.4	155.8	144.9	135.9	131.8	124.5	100	90.4	85.6	90.8	84.4	82.6

Source: Bruegel: <http://www.bruegel.org/publications/publication-detail/publication/716-real-effective-exchange-rates-for-178-countries-a-new-database>.

In terms of structure of the economy, shows that the services sector has a dominant and growing share while industry and manufacturing have declined substantially, with manufacturing's share falling from almost 20% to about 8%. The agricultural sector is very small, accounting for only 2.2% of GDP in 2011, which is much lower than the average share of the agricultural sector in other study countries<sup>4</sup>. In

the 1960s and 1970s Seychelles was largely agricultural, with cinnamon, vanilla and copra being the main export products, but following the opening of the international airport in 1972 the economy progressively switched towards the tourism industry<sup>5</sup>. The cultivation of coconuts – which used to be the main pillar of Seychelles' economy – has in particular dropped considerably.

<sup>1</sup>2012 estimate; Source: World Bank's World Development Indicators.

<sup>2</sup>Source: UNDP's Human Development Index 2012 Rankings.

<sup>3</sup>Source: World Bank's World Development Indicators (WDI). The highest GDP per capita in Africa for the year 2012 was Equatorial Guinea, which is an oil exporter.

<sup>4</sup>The average share of the agriculture sector in GDP in the other six study countries was 32.1% in 2011 (WDI).

<sup>5</sup>Since wages were higher in the tourism sector, agriculture declined due to a shortage of labour, and tourism became the main economic activity of the Seychelles. More than 80% of state agricultural land of the 1960s and 1970s has in the meantime been diverted to other sectors (Seychelles Sustainable Development Strategy 2012-2020).

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Table 2: Composition of Seychelles GDP in %, 2000-2011

Sector	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Agriculture	2.8	2.8	2.9	2.6	3.5	3.3	3.0	2.7	2.6	2.3	2.3	2.2
Industry	29.0	28.3	30.2	27.5	14.8	16.4	16.2	16.1	15.6	14.0	14.0	13.6
Of which Manufacturing <sup>6</sup>	19.2	18.1	18.2	16.4	7.7	8.7	9.0	9.6	9.3	7.8	8.0	7.2
Services	68.2	68.9	66.9	69.8	81.8	80.3	80.8	81.2	81.8	83.7	83.8	84.2

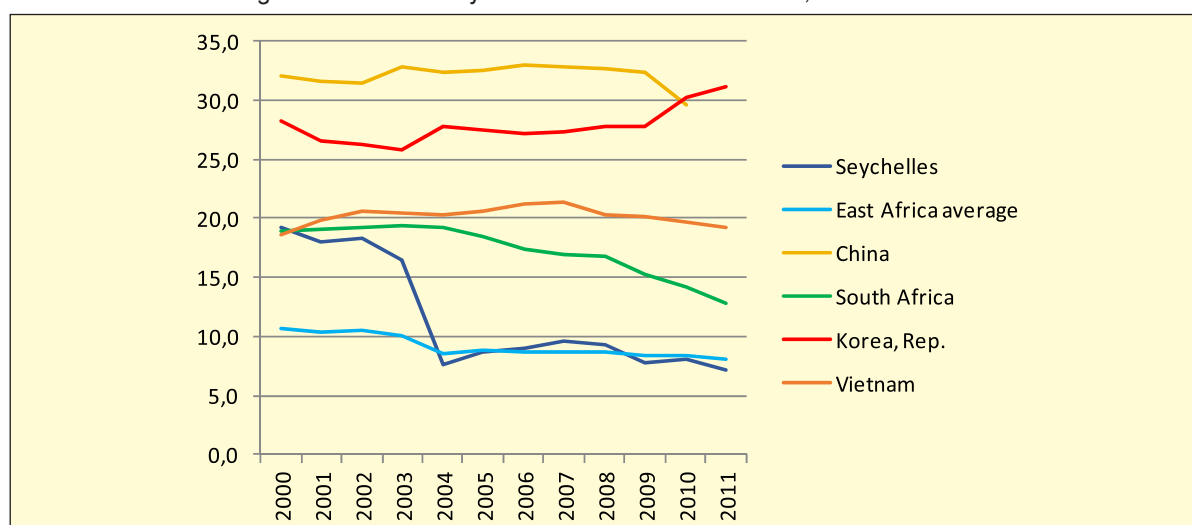
Source: World Bank / World Development Indicators (WDI).

The share of manufacturing in GDP used to be significantly higher in Seychelles than in the other six study countries, but it is now in line with the regional average (Graph 1).

Tourism has been the main driver of growth in Seychelles and is the main employer, accounting for an estimated 22% of formal

employment. Other services sectors experiencing significant growth in recent years include the construction sector (largely driven by tourism and a 2006-2011 surge in FDI to finance the construction of hotels), financial services (as the country focuses on growing as an offshore financial centre) and the telecommunications sector (which is seeing a boost from the deployment of the new fibre-optic cable).

Graph 1: Share of manufacturing in GDP in % in Seychelles and selected countries, 2000-2011<sup>8</sup>



Source: World Bank / World Development Indicators (WDI).

Fishery is the other main pillar of the economy and the manufacturing sector is thus dominated by fish-processing activities. The fish-processing sector is also – together with tourism – the country's main foreign exchange earner, due in particular to substantial canned tuna exports.

In this context, it is important to note that Seychelles has concluded with the EU a Fisheries Partnership Agreement (FPA) that allows EU vessels – mainly from Spain, Portugal, France and Italy – to fish in

Seychelles' Exclusive Economic Zone (EEZ)<sup>9</sup>. The Agreement was initially for a period of six years but the protocol has been renewed for an additional three-year period starting in January 2011. It is the largest tuna-fisheries protocol signed by the EU with any country. In exchange for the right to access the Seychelles EEZ, the EU makes a financial contribution of 5.6 million EUR per year out of which 2.2 million EUR are dedicated to the support of the fisheries sector of Seychelles<sup>10</sup>. Similar agreements have also been signed by Seychelles with Japan, South Korea and Taiwan but the FPA signed

<sup>6</sup>ISIC classification Rev. 3 section D "Manufacturing", Divisions 15-37.

<sup>7</sup>African Economic Outlook, 2012.

<sup>8</sup>The "Eastern Africa average" is calculated here as the average share of the manufacturing sector in the seven study countries (Burundi, Ethiopia, Kenya, Rwanda, Seychelles, Tanzania, and Uganda).

<sup>9</sup>Seychelles' EEZ covers almost 1.4 million square kilometres and is one of the world's major tuna fishing grounds.

<sup>10</sup>The financial contribution of the initial phase (2005-2011) was 5.3 million EUR per year out of which 56% was earmarked for the support of the Seychelles' sectoral fisheries policy.

with the EU is the most significant in financial terms.

In terms of regional integration, Seychelles is a member of the Common Market for Eastern and Southern Africa (COMESA), the Southern African Development Community (SADC), and the Indian Ocean Commission (IOC). However, Seychelles' geographical isolation (about 1,900 km from mainland Africa) limits its scope for regional trade.

In addition, Seychelles signed in 2009 an Interim Economic Partnership Agreement (EPA) with the EU, which grants Seychelles' exports duty-free and quota-free access to the EU markets. Seychelles has observer status at the WTO and has advanced towards accession with a fourth Working Party meeting held in June 2013, following revised goods and services offers in May 2013.

## 1.2 Descriptive overview

### 1.2.1 Size of manufacturing sector in the economy

The definition of manufacturing used in this report is based on the ISIC

classification and refers specifically to industries belonging to ISIC Rev. 3 divisions 15 to 37<sup>11</sup>. Value added is defined as the net output of a sector after adding up all outputs and subtracting intermediate inputs.

Table 3 presents the evolution of Seychelles' Manufacturing Value Added (MVA) from 2000 to 2011. It indicates that the manufacturing sector declined in the last 10 years not only in terms of share of GDP but also in absolute value, from USD 127.4 million in 2002 to USD 75.8 million in 2011. MVA per capita is the basic indicator to measure a country's level of industrialization. Seychelles used to have the highest MVA per capita in Africa, but as shown in the country's MVA per capita has also significantly declined in the last 10 years and is now below the MVA per capita of countries such as Mauritius or South Africa: in 2011, MVA per capita was USD 1,305 in Mauritius, up from USD 793 in 2000, and USD 914 in South Africa, up from USD 521 in 2000 (World Bank's World Development Indicators). Nevertheless, Graph 2 shows that MVA per capita in Seychelles is still well above the regional average<sup>12</sup>.

Table 3: Manufacturing, value added (MVA) in Seychelles, 2000-2011

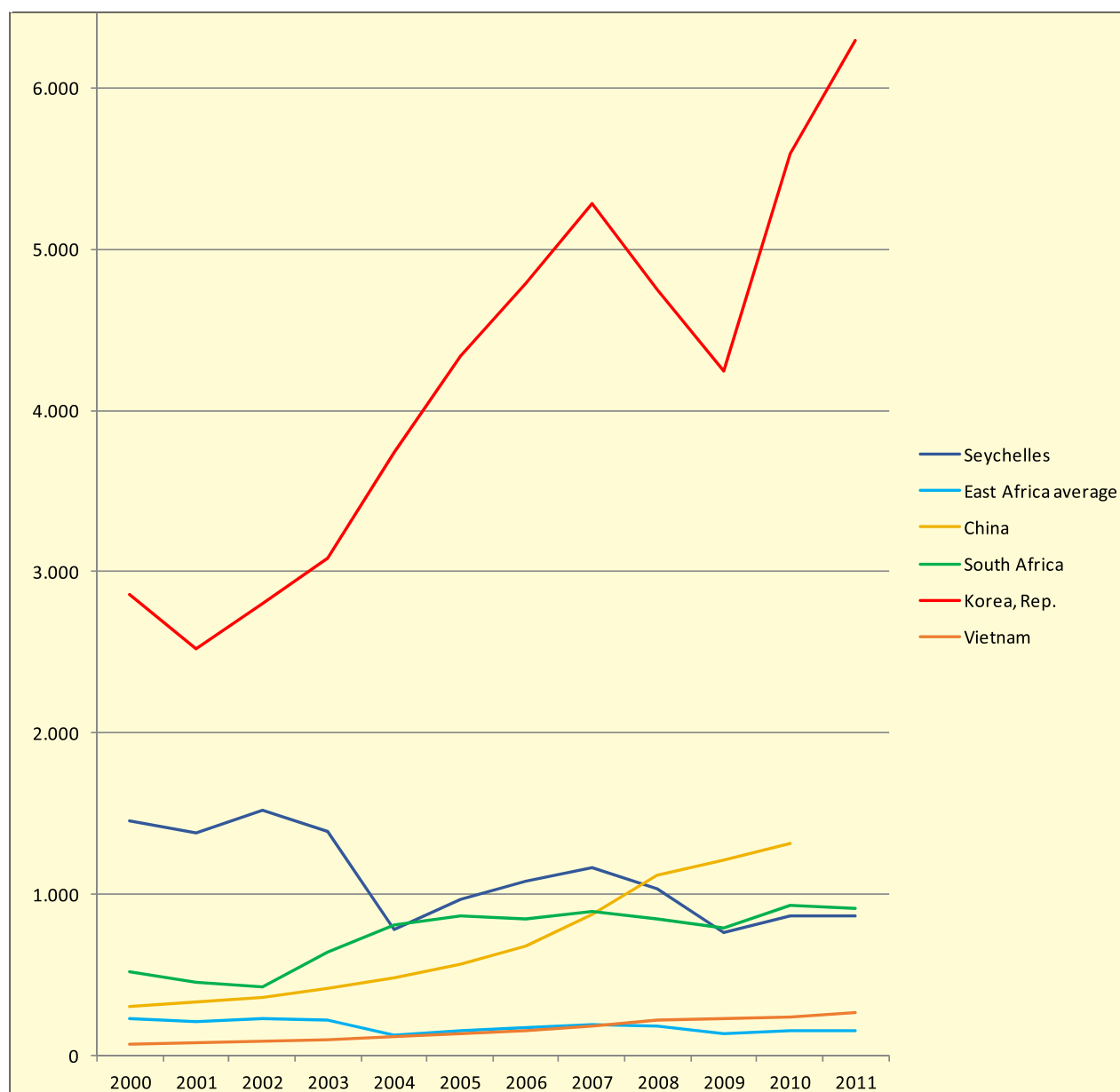
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
MVA (million current USD)	118.1	111.8	127.4	115.4	64.3	80.4	91.1	99.0	89.9	66.3	77.9	75.8
Contribution of manufacturing to industrial GDP, in %	66.2%	64.0%	60.3%	59.7%	51.8%	53.3%	55.2%	59.5%	59.5%	55.8%	57.3%	52.6%
MVA per capita (current USD)	1,456	1,377	1,522	1,394	779	969	1,077	1,164	1,034	759	868	867

Source: World Bank / World Development Indicators (WDI).

<sup>11</sup>Seychelles' EEZ covers almost 1.4 million square kilometres and is one of the world's major tuna fishing grounds.

<sup>12</sup>The financial contribution of the initial phase (2005-2011) was 5.3 million EUR per year out of which 56% was earmarked for the support of the Seychelles' sectoral fisheries policy.

Graph 2: MVA per capita, Seychelles and selected countries, 2000-2011



Source: World Bank / World Development Indicators (WDI).

In terms of contribution to employment, shows that the share of manufacturing employment in total employment is also declining, but at a slower rate than MVA. This indicates a decrease in labour productivity, further discussed in section 1.3.1.

Nevertheless, despite the recent decline, the contribution of the manufacturing sector to total employment (9.2% in 2012) is quite high compared to the other study countries since the regional average is

around 6%.

Finally, it can be noted that the figures in include both formal employment and informal employment. While there is no data available on the specific share of informal employment in the manufacturing sector, it can be noted that according to the 2012 Labour Force Survey, 16.8% of the total employed population worked in the informal sector in Seychelles.



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**Table 4: Employment in the manufacturing sector in Seychelles, 2000-2012**

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Manufacturing Employment	3,814	3,748	3,656	4,398	4,213	4,324	4,465	4,455	4,170	4,419	4,570	4,670	4,717
Share of total employment (%)	11.9	11.3	10.7	13.3	12.9	12.5	11.9	11.3	10.1	10.5	10.3	9.4	9.2

Source: Seychelles National Bureau of Statistics.

Although the manufacturing sector declined both in terms of value added and contribution to employment, Seychelles' manufactured

exports have experienced a steady and strong growth since 2001 (Table 5).

**Table 5: Seychelles exports of manufactured products, 2001-2012** <sup>13, 14</sup>

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Total manufactured exports, current USD millions	159.4	223.8	267.9	287.7	235.2	237.8	n.a.	241.6	350.7	390.4	370.0	451.3
Share of manufactured exports in total merchandise exports	73.7%	98.7%	97.9%	98.9%	69.2%	62.6%	n.a.	98.3%	97.7%	98.5%	97.9%	96.7%
Total manufactured exports as % of industrial GDP	91.2%	106.0%	138.5%	231.7%	156.1%	144.1%	n.a.	159.8%	295.0%	287.1%	256.8%	n.a.

Source: International Trade Centre's TradeMap (for export data); World Bank / World Development Indicators (for data on GDP).

The share of manufactured exports in Seychelles' total merchandise exports is high and well above the regional average (see Graph 3). As will be further discussed in section 1.2.2, this is mostly due to the

significant exports of processed or preserved fish or fish products – in particular canned tuna – which represent the bulk of manufactured exports.

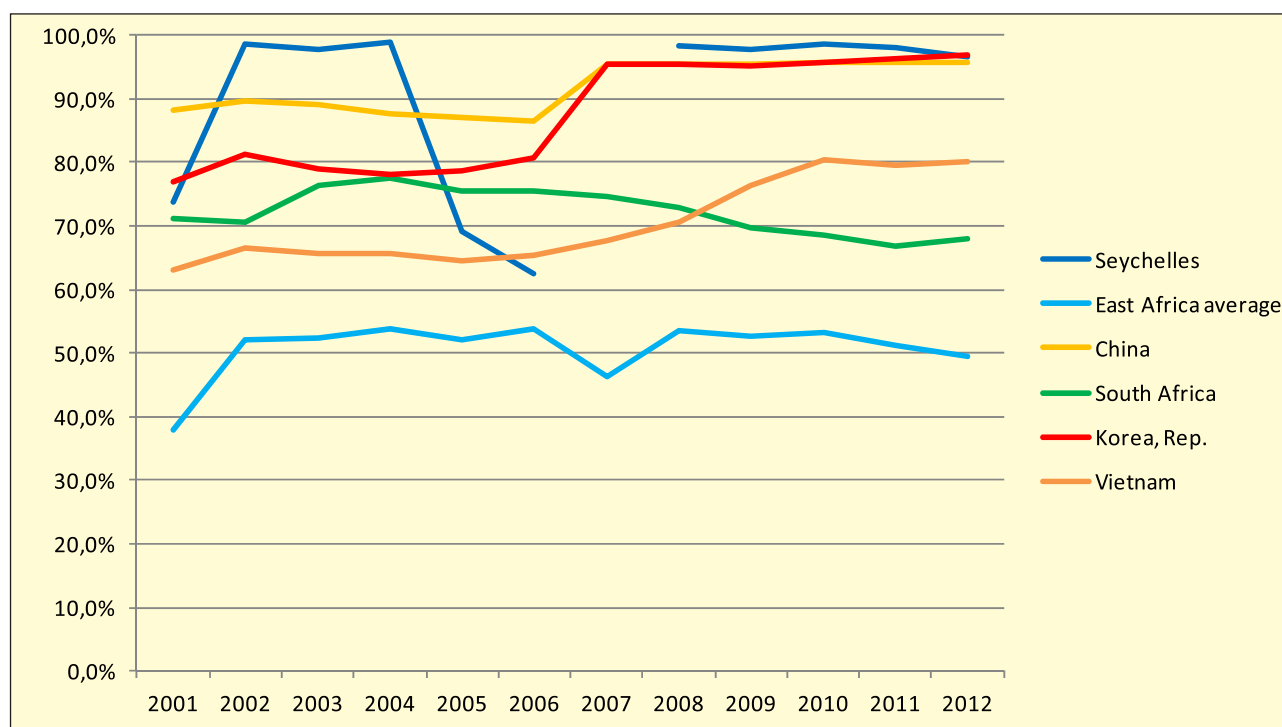
<sup>13</sup>Data for the period 2009-2012 based on mirror data.

<sup>14</sup>The definition of "manufacturing" applied to determine manufactured exports in this table is also based on the ISIC classification (specifically, ISIC Rev. 3), i.e. chapter D – Manufacturing (divisions 15–37). Other sources for international trade data – such as WDI – apply a more restricted definition of "manufactures", which comprise "commodities in

SITC sections 5 (chemicals), 6 (basic manufactures), 7 (machinery and transport equipment), and 8 (miscellaneous manufactured goods), excluding division 68 (non-ferrous metals)". In other words, they exclude processed agricultural products, beverages and others.

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Graph 3: Share of manufactured exports in total merchandise exports, Seychelles and selected countries, 2000-2011



Source: International Trade Centre's TradeMap.

It must be noted however that and Graph 3 (as well as all the other tables and graphs involving export data in this report, with the exception of detailing the main manufactured exports) were computed using ITC TradeMap data, which does not separate re-exports from exports<sup>15</sup>. The rationale for using ITC TradeMap data in priority was to facilitate the comparison across countries by using a single source for export data, but the inclusion of re-exports means that it is important to keep in mind that exports can be overvalued and the classification of exports by category (e.g. manufactured export vs. non-manufactured exports) can be distorted.

In this context, the following aspects are important to note:

- The inclusion of re-exports means that total manufactured exports are overvalued in table 5. Specifically, the higher value of manufactured exports for the years 2009 to 2012 appear to be a result of the use of mirror data which seem to include primarily re-exports<sup>16</sup>. In particular, the ITC TradeMap data for the period 2009-2012 include large re-exports of frozen tuna, which corresponds in fact to tuna that is landed in Port Victoria by the foreign-owned vessels fishing in Seychelles' EEZ then transhipped directly to other

countries<sup>17</sup>.

- The substantial drop in the share of manufactured products in total merchandise exports in 2001, 2005 and 2006 is due to large re-exports of petroleum oil for these years. Excluding these (see table 9 in section 1.2.2.3<sup>18</sup>), the share of manufactured exports in total merchandise exports is stable and well above 90% for all years in the period 2000-2012 (canned tuna exports alone accounting for more than 90% of merchandise exports for most years).
- The analysis of the export data from the National Bureau of Statistics however confirms the two main findings mentioned earlier in this section:
  - Seychelles' manufactured exports have significantly grown over the last ten years (based on the NBS data, total manufactured exports went from USD 119.8 million in 2000 to USD 268.2 million in 2012, while the currency depreciated during the period);
  - The share of manufactured exports in Seychelles' total merchandise exports is high and well above the regional average: based on

<sup>15</sup>See ITC's TradeMap Frequently Asked Questions, Question 1 d "What are re-exports?"

<sup>16</sup>Significant exports suddenly appear over the period of 2009-2012 which are not recorded at all over the period 2001-2008, nor in the NBS data, such as the frozen tuna, copper bars, cement, etc.

<sup>17</sup>The fishing port in Victoria is the most important tuna landing and transhipment port in the south-western Indian Ocean: approximately 85% of the tuna catch from purse seiners in the Indian Ocean is transhipped in Port Victoria. Only about 30% is being landed for processing in Seychelles – the rest is transhipped to other locations. Most of the tuna processed in Mauritius tuna canneries is for example first landed in Port Victoria then transhipped to Mauritius.

<sup>18</sup>The export data provided by the National Bureau of Statistics (NBS) distinguishes between exports and re-exports and are used in this report not only to present in detail the main manufactured exports in section but also to clarify issues when the results obtained using ITC TradeMap data are misleading.



the NBS data, manufactured exports accounted for more than 98% of total merchandise exports in the last five years.

## 1.2.2 Structure of the manufacturing sector

### 1.2.2.1 Overview of manufacturing sub-sectors

Seychelles' manufacturing output is dominated by resource-based manufactured products: the combined food products, beverages and tobacco sub-sectors accounted for about 74% of the manufacturing output in 2011, an increase from 60% in 2004 (Table 6). The beverages and tobacco sub-sector has experienced the highest growth, increasing its share in manufacturing output from 23.7% in 2004 to 33.8% in 2011.

The remainder of this section provides an overview of the main products that are manufactured in Seychelles.

### Food products

As mentioned earlier, fisheries is one of the two main pillars of the Seychelles economy together with tourism, and therefore the food

products sub-sector is dominated by fish-processing activities.

The main players in the fish-processing sub-sector are the four fish-processing plants that are approved for exports to the EU:

- One canned tuna producer, Indian Ocean Tuna (IOT);
- Two producers of fresh and frozen fish as well as value-added fish products, Oceana Fisheries and Sea Harvest; and
- One fish oil (human consumption) producer, Ocean Products Seychelles, an IOT subsidiary.

IOT is the second largest tuna canning factory in the world and is partly owned (40%) by the Government of Seychelles<sup>19</sup>. With more than 2,000 employees, IOT is by far the largest single employer in Seychelles. IOT processes tuna landed in Port Victoria by the foreign-owned industrial fishery fleet fishing in Seychelles' EEZ (mainly EU vessels that are licensed under the Seychelles-EU Fisheries Partnership Agreement). IOT also has a fishmeal production factory, which uses the cannery's by-products and certain by-catches of the fleet.

<sup>19</sup>The remaining 60% are owned by the investment consortium Marine World Brands (MWB Brands).

Table 6: Manufacturing output, per sub-sector (2004-2011)<sup>20</sup>

Manufacturing sub-sector	2004		2005		2006		2007		2008		2009		2010		2011	
	Value, million USD	Share of manufacturing sector	Value, million USD	Share of manufacturing sector	Value, million USD	Share of manufacturing sector	Value, million USD	Share of manufacturing sector	Value, million USD	Share of manufacturing sector	Value, million USD	Share of manufacturing sector	Value, million USD	Share of manufacturing sector	Value, million USD	Share of manufacturing sector
<i>(Seychelles SIC Classification<sup>21</sup>)</i>																
Food products ( <i>SIC C10</i> )	23.8	37.0%	28.6	35.6%	33.4	36.7%	41.1	41.5%	35.8	39.9%	28.4	42.9%	35.1	45.1%	30.4	40.1%
Beverages and tobacco ( <i>SIC C11-12</i> )	15.2	23.7%	20.0	24.9%	27.7	30.4%	25.4	25.7%	25.3	28.2%	20.8	31.3%	23.6	30.3%	25.6	33.8%
Concrete, rock products, glass, etc. ( <i>SIC C23</i> )	5.0	7.7%	7.5	9.4%	9.3	10.2%	7.6	7.7%	7.5	8.3%	5.9	8.9%	6.5	8.4%	6.5	8.6%
Manufacturing, other ( <i>SIC C13-22, 24-33</i> )	20.3	31.6%	24.2	30.1%	20.7	22.7%	24.8	25.1%	21.3	23.6%	11.2	16.9%	12.7	16.3%	13.2	17.5%
<b>Total</b>	<b>64.3</b>	<b>100.0%</b>	<b>80.4</b>	<b>100.0%</b>	<b>91.1</b>	<b>100.0%</b>	<b>99.0</b>	<b>100.0%</b>	<b>89.9</b>	<b>100.0%</b>	<b>66.3</b>	<b>100.0%</b>	<b>77.9</b>	<b>100.0%</b>	<b>75.8</b>	<b>100.0%</b>

Source: Seychelles National Bureau of Statistics / Seychelles National Accounts

<sup>20</sup>Unfortunately it was not possible to obtain more disaggregated data: according to the National Bureau of Statistics, since Seychelles is a small economy where sub-sectors often consists of one company (or in some cases one large company and much smaller ones) breaking the sub-sectors further down would isolate individual companies and potentially give out sensitive information.

<sup>21</sup>The SIC Classification is based on UN's ISIC Rev 4. For more details, see: [http://www.nsb.gov.se/files/National%20Accounts/Seychelles%20Industry%20Classification%20\(SIC%20Codes\).xls](http://www.nsb.gov.se/files/National%20Accounts/Seychelles%20Industry%20Classification%20(SIC%20Codes).xls).

The Seychelles economy is heavily dependent on IOT's operations (IOT's canned tuna exports account for over 90% of the country's merchandise exports<sup>22</sup>), which are in turn highly dependent on the EU market (almost all of IOT's exports are to the EU<sup>23</sup>). IOT sources the metal cans from another Seychellois firm which is located adjacent to IOT (see below under "Other manufacturing") and imports all other inputs (packing sleeves, labels, cardboard boxes, etc.).

In contrast to IOT, which is based in the International Trade Zone (ITZ)<sup>24</sup> and is therefore an "offshore" activity, both Oceana and Sea Harvest are "onshore". Also, while IOT processes tuna caught by the industrial fishery fleet, Oceana and Sea Harvest process mainly fish caught by the Seychellois-owned semi-industrial fleet as well the small-scale fleet (artisanal fishermen)<sup>25</sup>.

Oceana produces a wide range of value-added products (such as fish steaks, fish fillets, smoked fish, fish burgers and fish sausages) and aims to develop value addition further in the future. Oceana's exports consist mostly of fish fillets and loins and the main export market is the EU (80% of total exports; the company has significantly invested in its plant in recent years to have it EU-accepted). The company also exports frozen fish to Southern Africa and aims to export to Asia (e.g. Japan) in the future.

Sea Harvest exports frozen fish and fish fillets and sells various value-added products such as fish burgers, fish balls, etc. on the domestic market. Sea Harvest also imports other fish products such as prawns and calamars to process and sell domestically. The company imports all of its packaging material.

Apart from the four companies mentioned above, some small scale fish-processing exists but is very limited as the vast bulk of artisanal catches are sold as whole fish locally. However, the government has taken steps to encourage value addition (see section 2.1.3).

Compared to capture fisheries, the aquaculture sector in Seychelles is quite small. Production is dominated by shrimp farming but also includes oysters and maxima clams. There used to be a large prawn plant on Coëtivy (one of the Outer Islands) employing about 300 people: black tiger prawns were imported from Madagascar, processed in Seychelles, then exported to Europe and Asia. However, it closed down in 2008 because the factory was too costly to operate according to the Seychelles Marketing Board<sup>26</sup> which was

managing it at the time. The main issues were transport costs as well as the cost of fuel (which was bought from the National Oil Company and then brought to the island). While the prawn plant still exists some investment would be needed to re-start production (the plant would need to be reequipped, the chillers would need to be fixed, the electric system would need to be checked, etc.).

Finally, a sea cucumber industry has recently been developed in Seychelles in response to high prices on the international market: the processed products are exported to Asia (Hong Kong/China and Singapore) where there is high demand for these products. However, there are doubts about the sustainability of this industry *inter alia* because of the threat it might represent for the ecosystem.

Apart from processed fish or fish products, other food products manufactured in Seychelles include, *inter alia*:

- **Tea products:** tea and citronella are grown on the main island of Mahé and are blended, processed and packed at a tea factory operated by the Seychelles Trading Company (STC)<sup>27</sup>. However, part of the tea is also imported (from Sri Lanka), then blended and mixed with the local tea. STC is currently only producing tea for the domestic market but has plans to start exporting in the future – this would require however some upgrading to achieve higher standards;
- **Bread and baked products:** STC produces bread and other baked products, using flour imported from Mauritius, exclusively for the domestic market;
- **Tomato sauce:** one privately-owned company produces tomato sauce for the domestic market;
- **Meat-processing:** there are several small-scale meat-processing activities (pigs and chicken) exclusively for the domestic market.

## Beverages and tobacco

Compared to other manufacturing sub-sectors in Seychelles – which often consist of one single producer due to the limited size of the economy – the beverages sub-sector is characterised by a relatively large number of players. The largest company is Seychelles Breweries which since 1993 has been a branch of Diageo Plc, the world's leading alcoholic beverage company. Seychelles Breweries produces a wide range of beverage products covering all segments of the sub-sector. Seychelles Breweries is currently not exporting but

<sup>22</sup>Canned tuna exports accounted for 92.0% of total merchandise exports in 2012, according to export data from the National Bureau of Statistics.

<sup>23</sup>In 2012, 99.6% of canned tuna exports were to the EU, according to export data from the National Bureau of Statistics.

<sup>24</sup>For more details on Seychelles' International Trade Zone, see section .

<sup>25</sup>Oceana itself has been involved in semi-industrial longline fishing since 2009: it currently operates two semi-industrial longline vessels targeting tuna and swordfish.

<sup>26</sup>The Seychelles Marketing Board (SMB) was a large parastatal company that was placed in liquidation 2008 – the Seychelles Trading Company (STC) took over some of its assets and activities.

<sup>27</sup>STC is a limited liability company fully owned by the Government of Seychelles whose core business is the import, storage and distribution of essential and basic foods (rice, sugar, salt, etc.) i.e. products that the Government wants to ensure are available in Seychelles. Many of the manufactured products that STC distributes are commodities that the company imports in bulk and then repacks (rice, sugar, instant coffee, etc.) but the company also engages actively in light manufacturing and has plans to develop additional light manufacturing activities. These would probably be implemented through joint ventures with local or overseas partners, but not in the short-term as the company is currently focusing on its retailing activities.

the company has plans to do this in the future. In addition, several other smaller firms are active in the sector, some of them having managed to penetrate export markets (notably Takamaka Bay).

The following beverages are manufactured in Seychelles:

- **Beer:** Seychelles Breweries produces three types of beers (SeyBrew, the local brand, and Guinness and Eku under license);
- **Lemonades and sodas** – Producers include:
  - Seychelles Breweries produces several soft drinks under the local SeyPearl brand and is licensed by Diageo to produce international sodas such as Coca-Cola, Sprite and Fanta;
  - Waterloo Factory was created in 1968 (i.e. a few years before Seychelles Breweries) and produces about ten different brands of sodas. The company operates a small factory with a capacity to produce about 250-300 bottles a day. All inputs are imported: sugar, flavours and preservatives from England and glass from Mauritius;
- **Alcoholic beverages and spirits** – Producers include:
  - La Buse produces about 70 different types of alcoholic products (liquors, rum, vodka and spirits) using in particular natural local ingredients, such as citronella, coconut and cinnamon. The company has a duty free shop at the airport and has exported small quantities to the UK, France and Tanzania. La Buse imports the bottles and the aromas and sources the packaging and labels from a local supplier, but this supplier apparently only does the design and the actual material is imported from Singapore.
  - Takamaka Bay, a young company specialised in the production of rum products, has successfully managed to penetrate export markets. Its distillery was built and developed in 2002 and the company started exporting in 2005. It has since started to diversify its products from the initial dark rum to white rum, coco rum and vodka. Like other companies in the sub-sectors, the company imports most of its inputs, for example it sources carton from suppliers in South Africa and Madagascar;
  - Sodepak Industries produces a coconut liquor made from real coconut extract;
  - Seychelles Breweries started producing Smirnoff vodka in 2011;
- **Bottled water:** about ten companies are currently producing bottled mineral water in Seychelles and several other mineral bottled water projects are apparently in preparation over the islands. This sub-sector has grown very fast: one company first started producing bottled water and registered success then several other

companies followed and entered the market. Competition is now intense and several stakeholders consider the market to be congested.

Regarding tobacco products, there are two cigarette factories in Seychelles, one producing for the domestic market (Amalgamated Tobacco/Mahé Kings) while the other one, in the International Trade Zone, only exports, mainly to Southern Africa (Seaside Tobacco). For both these factories, all inputs are imported.

## Other manufacturing

Other products manufactured in Seychelles include, inter alia:

- **Metal cans:** a plant operated by the multinational Ardagh produces metal cans for the IOT canned tuna factory. The plant is 100% dependent on IOT, which is its only client: according to Ardagh, it was not possible to find other clients in Seychelles. The building of the plant is actually owned by IOT. As IOT is expanding, the Ardagh plant has had to expand as well. The plant imports its raw material (sheet tinplate) from Korea and Japan;
- **Specialised orthopaedic appliances:** the company Chelle Medical produces various types of orthopaedic appliances, in particular reusable laryngeal masks – the company imports the parts (tubes and masks made out of silicon) from Singapore, assembles (glues) the masks in its factory then exports the final product, mainly to Europe to a distributor in Amsterdam which re-exports the products to various countries;
- **Toilet paper and kitchen towels are produced at a factory operated by STC.** This is a small-scale production and the output is exclusively sold on the domestic market. The inputs are imported from Asia (China and Thailand);
- **Building materials:** products manufactured in Seychelles include tiles, bricks, blocks, etc. It can also be noted that garden decor is currently booming all over the islands due to the development of tourism, which creates for example demand for cement/concrete vases;
- **Paint and paint products:** the main player in this sub-sector is Penlac Co. Ltd., formerly a joint venture between the Government of Seychelles and a Mauritian company, but now 100% privately-owned (Seychellois-owned) – the company produces exclusively for the local market;
- **Coconut oil, essential oils and related products:** although the coconut industry experienced a strong decline since the 1970s, coconut oil is still being produced in Seychelles, notably on the Outer Islands: Farquhar for example retained its coconut oil production and production of coconut oil started again on Coëtivy at the beginning of 2013. However, there is currently no value addition or further processing of the coconut oil: the



company Sodepak used to produce soaps from coconut oil on Mahé but has ceased production of such soaps a few years ago<sup>28</sup>. In addition to coconut oil, pure essential oils are also produced in Seychelles using plants such as cinnamon bark, cinnamon leaf, citronella, lemon grass, eucalyptus, etc. which are all available in Seychelles. Two small companies are involved in the extraction/distillation and distribution of essential oils in Seychelles and have managed to export small quantities (mainly cinnamon oil): Globarom and Island Scent. One other company, Kreolfleurage Parfums, manufactures perfumes produced on a base of essential oils from Seychelles and the region, as well as other parts of the world: it is one of the few perfume manufactures in the Indian Ocean; and

- **Crafts, jewellery, etc.:** the crafts sector is quite dynamic and benefits from linkages with the tourism sector. Several

companies are active in the sub-sector, the majority of which are “cottage industries”, i.e. micro-enterprises<sup>29</sup>. One notable company in this sub-sector is Kreolor, which produces gold jewellery and crafts (bracelets, necklaces, pendants, earrings, rings, and various crafts).

### 1.2.2.2 Number of firms and employment

In 2012, a total of 311 manufacturing firms were reported in Seychelles (Table 7) and the trend over the last three years suggests that this number is growing.

In line with the general structure of the Seychelles economy (which is vastly dominated by SMEs), the manufacturing sector comprises mostly of SMEs. IOT and Seychelles Breweries are the only large manufacturing companies in Seychelles<sup>30</sup>.

Table 7: Number of manufacturing firms in Seychelles, 2010-2012

	2010	2011	2012
Number of firms	252	305	311

Source: Estimates from Seychelles' National Bureau of Statistics.

The fish-processing sub-sector accounts for about half of the total employment of the manufacturing sector (Table 8). This is mainly due to IOT, which as mentioned earlier has more than 2,000 employees

and thus accounts for the bulk of the employment in the sub-sector. In comparison, the contribution to employment of the beverages sector is much more limited.

Table 8: Employment per manufacturing sub-sector in Seychelles, 2000-2012

Manufacturing sub-sector	2010		2011		2012	
	Number of employees	Share of total manufacturing employment	Number of employees	Share of total manufacturing employment	Number of employees	Share of total manufacturing employment
Processing and preserving of fish and fish products	2,369	51.8%	2,077	45.3%	2,255	47.8%
Beverages	335	7.3%	239	5.2%	270	5.7%
Other manufacturing	1,866	40.8%	2,271	49.5%	2,190	46.4%
Total	4,570	100%	4,587	100%	4,715	100%

Source: Seychelles National Bureau of Statistics.

### 1.2.2.3 Main manufactured exports

Seychelles' manufactured exports are dominated by exports of processed or preserved fish or fish products: canned tuna alone accounts for more than 90% of total merchandise exports (Table 9).

In addition to canned tuna, fish feed, fish oils and sea cucumbers are also significant exports – exports of fish oil and sea cucumbers have in particular experienced significant growth in recent years. Seychelles also used to have significant exports of frozen prawns (accounting for up to 3.8% of total merchandise exports in 2004), but these exports

<sup>28</sup> The company now produces exclusively bottled water.

<sup>29</sup> The National SME Policy and Strategy for Seychelles defines cottage industries as follows: “Cottage industries are enterprises with annual turnover less than 800,000 rupees and fewer than 5 persons employed; including owners and managers, who must be active in the business”.

<sup>30</sup> STC is also a large company but is not specialised in manufacturing.

stopped completely in 2008 when the prawn plant on Coëtivy closed down.

Other than processed or preserved fish or fish products, the only significant manufactured export is the export of specialised orthopaedic appliances (in particular reusable laryngeal masks) by the company Chelle Medical. While some rum exports have been registered in the last five years, the value of these exports is very small.

Overall, there has been little export diversification over the last ten years, as the relative shares of the traditional manufactured exports remained relatively stable and the only two new manufactured exports that have experienced a significant emergence (fish oil and sea cucumbers) are products belonging to the same sub-sector that was already dominating exports (the processing of marine products sub-sector).

#### 1.2.2.4 Selection of key sub-sectors for further detailed analysis

The Government's relevant policies and strategies do not target any

specific manufacturing sector: rather, the focus is on small-scale/light manufacturing in general – as opposed to heavy industries<sup>31</sup> – and on promoting value addition (see section 2.1.3).

Based on the above overview of the manufacturing sector, the following manufacturing sub-sectors constitute key sub-sectors and are further analysed in this study:

1. Processing and preserving of fish and fish products;
2. Beverages;
3. Essential oils and coconut oil.

The first two key sub-sectors were selected based on their importance in economic terms (contribution to GDP, contribution to employment, export potential, etc.), while the third one – which is much smaller in economic terms – was selected because it draws on resources available locally (and thus is less dependent on the import of inputs) and for its potential forward linkages to other sub-sectors (e.g. soaps, perfumes, pharmaceutical products).

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<sup>31</sup> Heavy industries are indeed considered to have potentially more harmful effects on the environment – on which the tourism sector heavily depends – and would also probably be unrealistic given the scarcity of land available in Seychelles for manufacturing purposes (for more details on the issue of scarcity of land, see section 2.1.4).



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Table 9: Main manufactured products exported by Seychelles, 2001-2012<sup>32</sup>

Manufactured products	2001		2002		2003		2004		2005		2006		2007		2008		2009		2010		2011		2012	
	Value in million USD	Share in total merchandise exports	Value in million USD	Share in total merchandise exports	Value in million USD	Share in total merchandise exports	Value in million USD	Share in total merchandise exports	Value in million USD	Share in total merchandise exports	Value in million USD	Share in total merchandise exports	Value in million USD	Share in total merchandise exports	Value in million USD	Share in total merchandise exports	Value in million USD	Share in total merchandise exports	Value in million USD	Share in total merchandise exports	Value in million USD	Share in total merchandise exports	Value in million USD	Share in total merchandise exports
Canned tuna (HS160414)	140.3	92.1%	162.6	93.2%	194.5	92.0%	165.6	83.2%	178.2	84.1%	187.2	87.0%	184.7	91.8%	215.4	93.2%	218.5	91.6%	196.9	90.4%	242.4	91.8%	249.9	92.0%
Flour, meal & pellet of fish (HS230720)	5.8	3.8%	5.7	3.3%	3.1	1.5%	2.8	1.4%	4.9	2.3%	4.6	2.1%	4.4	2.2%	2.9	1.2%	5.6	2.3%	7.3	3.4%	7.4	2.8%	6.0	2.2%
Sea cucumbers, dried, salted or in brine (HS030799)	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	2.7	1.1%	3.7	1.7%	5.1	1.9%	5.2	1.9%
Fish oils (HS150420)	0.0	0.0%	0.1	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.2	0.1%	1.5	0.7%	2.9	1.3%	3.4	1.4%	3.3	1.5%	2.6	1.0%	3.2	1.2%
Breathing appliances and masks (HS902000)	0.4	0.3%	0.8	0.5%	0.4	0.2%	1.0	0.5%	2.0	1.0%	3.0	1.4%	3.3	1.6%	0.8	0.3%	0.0	0.0%	0.0	0.0%	0.0	0.0%	1.8	0.7%
Medical instruments and appliances (HS901890)	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	10.3	4.8%	1.0	0.5%	1.4	0.6%	2.0	0.8%	2.7	1.3%	2.3	0.9%	0.7	0.3%
Frozen fish (HS030379, 030339, 030349, 030369)	1.2	0.8%	2.0	1.1%	0.1	0.1%	0.6	0.3%	0.2	0.1%	0.0	0.0%	0.0	0.0%	0.1	0.0%	0.1	0.1%	0.4	0.2%	0.6	0.2%	0.4	0.1%
Rum (HS220840)	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.01	0.0%	0.02	0.01%	0.14	0.05%	0.13	0.05%
Fish, dried, salted or smoked / fish meal (HS030530/49/69/79)	0.3	0.2%	0.0	0.0%	0.1	0.1%	0.0	0.0%	0.1	0.0%	0.1	0.0%	0.1	0.1%	0.3	0.1%	0.1	0.1%	0.5	0.2%	0.03	0.01%	0.08	0.03%
Orthopaedic appliances (HS9021)	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.6	0.3%	3.7	1.7%	1.2	0.6%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.1	0.0%	0.0	0.0%
Frozen prawns (HS030613)	2.1	1.4%	1.2	0.7%	7.4	3.5%	7.5	3.8%	5.8	2.7%	4.3	2.0%	1.9	1.0%	1.8	0.8%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%
<b>Total merchandise exports</b>	<b>152.4</b>	<b>100%</b>	<b>174.4</b>	<b>100%</b>	<b>211.4</b>	<b>100%</b>	<b>199.1</b>	<b>100%</b>	<b>211.8</b>	<b>100%</b>	<b>215.2</b>	<b>100%</b>	<b>201.3</b>	<b>100%</b>	<b>231.2</b>	<b>100%</b>	<b>238.4</b>	<b>100%</b>	<b>217.8</b>	<b>100%</b>	<b>264.0</b>	<b>100%</b>	<b>271.6</b>	<b>100%</b>

Source: Seychelles' National Bureau of Statistics.

<sup>32</sup> This table is based on National Bureau of Statistics data on domestic exports. As it excludes re-exports, it gives a better picture of Seychelles exports than the ITC Trademap database which includes re-exports.

## 1.3 Estimate of competitiveness and comparative advantage

### 1.3.1 Overall competitiveness of the manufacturing sector

In order to estimate the competitiveness of Seychelles' manufacturing sector, three competitiveness indicators are presented in table 10, labour productivity, unit labour costs and revealed comparative advantage.

Labour Productivity is measured by MVA/employment, i.e. the average output per employee. The figures for the period 2000-2011 suggest that labour productivity in Seychelles' manufacturing sector has strongly declined between 2000 and 2009 (MVA per employee dropped by half during the period) but has stabilised since 2009.

Unit labour costs (ULC) measure the average cost of labour per unit of output and are calculated as the ratio of total labour costs to real output. The figures for the period show that the ULC have been increasing in recent years, going from 0.24 in 2008 to 0.47 in 2011:

this would suggest a declining competitiveness of Seychelles' manufacturing sector since 2008. However, the analysis of the data over the period 2010-2012 shows a substantial volatility of the ULC from year-to-year: in this context, no clear conclusions can be drawn from the available data for this indicator<sup>33</sup>.

The revealed comparative advantage (RCA) is an index used in international economics for calculating the relative advantage or disadvantage of a certain country in a certain class of goods or services as evidenced by trade flows. The manufacturing sector RCA is calculated as the share of the country's manufactured exports in the country's total exports divided by the share of manufactured world exports in total world exports (Balassa 1965). For this calculation, manufactured exports were determined the definition based on the ISIC classification, as specified in section 1.2.1. A comparative advantage is "revealed" if  $RCA > 1$ . If RCA is less than 1, the country is said to have a comparative disadvantage. As Seychelles' RCA is above 1 for most years, the country can be said to have a revealed comparative advantage in manufacturing.

Table 10: Indicators on the overall competitiveness of Seychelles' manufacturing sector, 2000-2012

Indicator	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Labour Productivity: MVA/Employment	30,969	29,826	34,839	26,237	15,256	18,585	20,404	22,211	21,556	15,004	17,049	16,238	n.a.
Unit Labour Cost: Total Labour Costs / Real Output	0.21	0.22	0.22	0.25	0.44	0.39	0.36	0.27	0.24	0.30	0.34	0.47	n.a.
Revealed comparative advantage (RCA), Manufacturing, Seychelles/World	n.a.	0.96	1.25	1.24	1.27	0.91	0.83	n.a.	1.25	1.22	1.23	1.24	1.24

Source: World Bank / World Development Indicators for MVA data; Seychelles National Bureau of Statistics for labour costs data; International Trade Centre's TradeMap for export data.

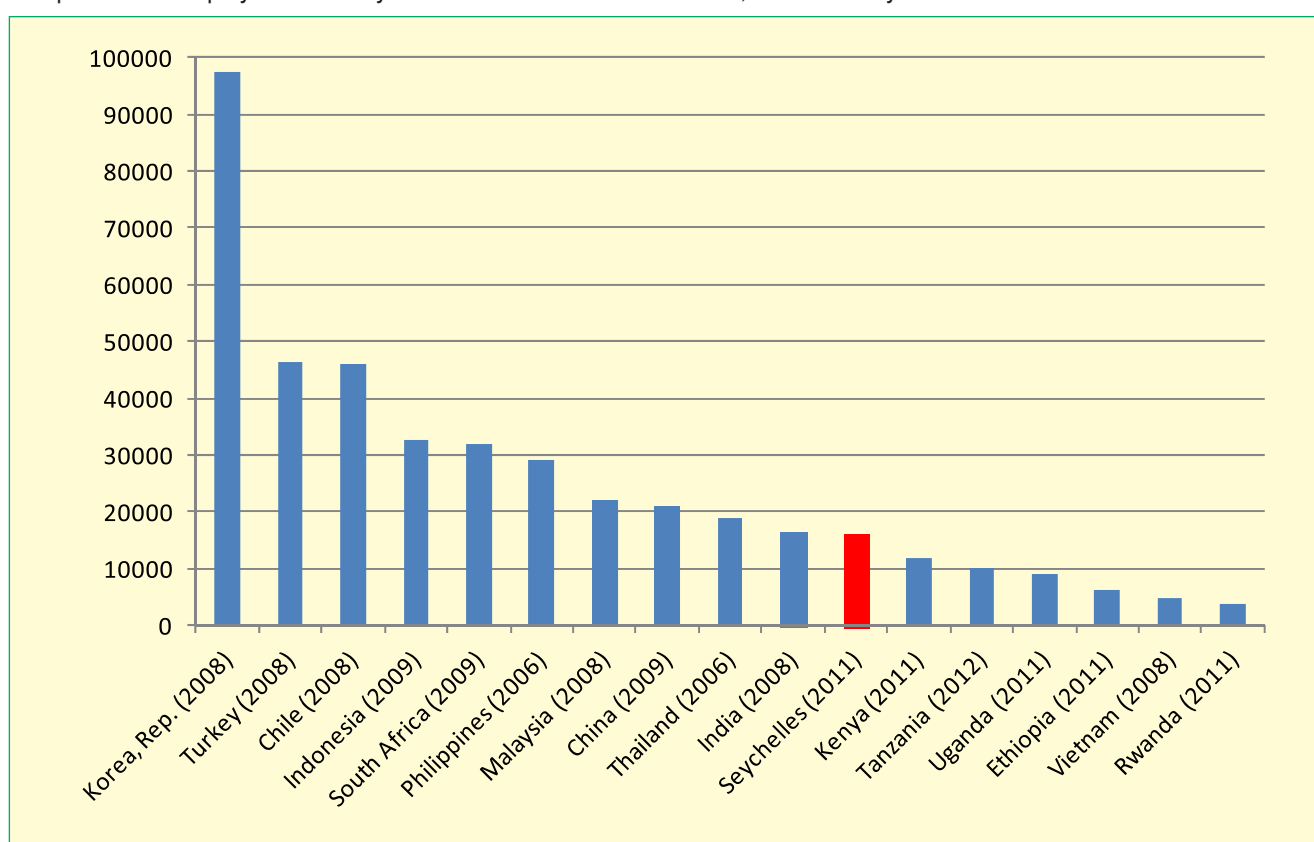
<sup>33</sup>Unfortunately it was not possible to obtain labour cost data on all study countries and selected benchmark countries from a single source or at least from sources applying a consistent methodology. Indeed, depending on the source the data are expressed in total wages and salaries or total labour costs, or in some instances in average annual/monthly rates which implied further calculations/estimations based on employment data drawn from yet another source. As a result, it was not possible to do a reliable comparative analysis of the Seychelles' ULC with the ULC of other study countries and benchmark countries.



However, the high value of the RCA is misleading in the case of Seychelles because the vast majority of the country's manufactured exports consists of preserved or processed fish or fish products – therefore it is in fact not so much in manufacturing that Seychelles does have a comparative advantage but rather in the processing and preserving of fish and fish products (if we were to exclude the processing and preserving of fish and fish products from the definition of manufacturing, Seychelles' RCA for manufacturing would be well below 1).

Graph 4 compares Seychelles' labour productivity (as measured by MVA/employment) with the labour productivity in the other study countries and in selected benchmark countries<sup>34</sup>. Despite the strong decline of the value of the labour productivity indicator since 2000, labour productivity in Seychelles' manufacturing sector is still higher than in any of the other study countries. On the other hand, the labour productivity in Seychelles' manufacturing sector is lower than almost all of the selected benchmark countries.

Graph 4: MVA/employment for Seychelles and benchmark countries, most recent year available



Source: World Bank / World Development Indicators for MVA data; National statistical databases/surveys for study countries' employment data and UNIDO's INDSTAT2 for benchmark countries' employment data.

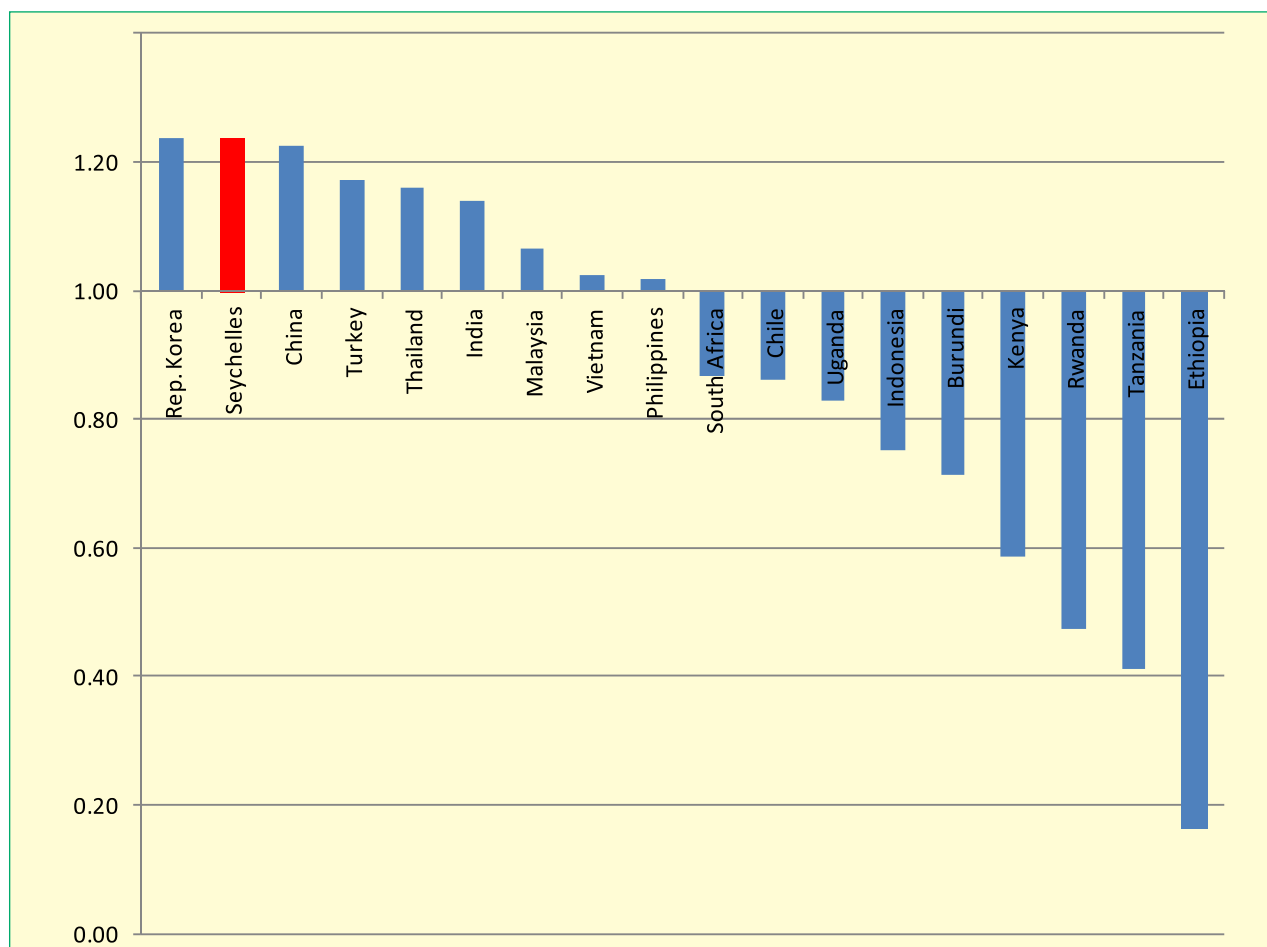
In terms of revealed comparative advantage, Graph 5 shows that Seychelles is the only study country to have a RCA above 1 for manufactured exports and therefore the only study country that can be said to have a comparative advantage in manufacturing. Moreover, Seychelles had in 2012 a higher RCA for manufactured exports than most of the selected benchmark countries: only South Korea had a

slightly higher RCA.

However, as noted earlier, the high value of the RCA for Seychelles is almost entirely due to the country's substantial exports of processed and preserved fish or fish products (in particular canned tuna) which represent the vast majority of its manufactured exports.

<sup>34</sup>While this graph gives an indication of the country's relative labour productivity, please note however that it was not possible to use a single source for employment data and therefore the reliability of this comparison analysis is subject to caution as there might be discrepancies in the way employment in the manufacturing sector is estimated depending on the source. For example, if there is significant informal employment in the country's manufacturing sector and this is not taken into account in the reported employment figures, it can obviously strongly influence the value of this productivity indicator.

Graph 5: Revealed comparative advantage of the country's manufacturing sector compared to World, for Seychelles and comparator countries, 2012



Source: International Trade Centre's TradeMap

Finally, as mentioned above it was not possible to conduct a reliable comparative analysis of the country's Unit Labour Cost with the ULC of other study countries and benchmark countries, but it can be noted that several previous studies highlight the fact that Seychelles has in general higher labour costs but also higher productivity than its competitors or the other study countries. For example Campling and Doherty (2007) find that labour costs in the canned tuna sub-sector are much higher in Seychelles than in both Mauritius and Thailand<sup>35</sup>. On the other hand, these higher labour costs are offset by higher

productivity (measured in tonnes of tuna processed per person and per year), which is estimated to be 75% higher than in countries such as Mauritius or Ghana (European Parliament 2011).

### 1.3.2 Competitiveness of key manufacturing sub-sectors

Table 11 presents the evolution of the Revealed Comparative Advantage (RCA) for each of the selected key-sub-sectors for the period 2001-2012<sup>36</sup>.

<sup>35</sup>The study estimated that basic hourly wage rates for local workers in Seychelles' canned tuna sub-sector was USD 1.90, compared to only USD 0.65 in Thailand and USD 0.90 in Mauritius. In addition, the study noted that cash fringe benefits were higher in Seychelles than in Thailand (but similar to Mauritius). This affects to some extent the competitiveness of Seychelles' canned tuna sub-sector, even though this has to be put in perspective by the fact that labour costs account for only around 6-8% of the total cost of a can of tuna shipped to the EU. More details about the findings of the study can be found in section 2.3.1 which provides a SWOT analysis of the processing of fish and fish products sub-sector.

<sup>36</sup>Given the unavailability of specific data on value added, employment or labour costs of the three selected key sub-sectors, labour productivity and unit labour costs could not be calculated at the sub-sector level.



Table 11: RCA, selected manufacturing sub-sectors Seychelles/World, 2001-2012

Indicator	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Processing of fish and fish products*	97.7	107.8	114.6	103.8	96.9	93.8	n.a	106.7	133.60	129.8	147.2	131.7
Beverages**	0.31	0.36	0.27	0.30	0.28	0.28	n.a.	0.29	0.05	0.05	0.14	0.07
Essential oils and coconut oil***	0.31	0.16	0.02	0.08	0.01	0.00	n.a.	0.00	0.01	0.01	0.00	0.01

Source: World Bank / World Development Indicators (WDI).

\* For this calculation, the ISIC code used was "1512 – Processing and preserving of fish and fish products".

\*\* For this calculation, the ISIC code used was "155 – Manufacture of beverages".

\*\*\* For this calculation, the HS codes used were the codes belonging to divisions 151311, 151319 and 3301.

Regarding the processing of fish and fish products, Seychelles' RCA is very high and well above 1 for all years, therefore the country can be said to have a clear comparative advantage in this sub-sector. Moreover, as trends over the period 2001-2012 point towards an increase in the value of the RCA, this would suggest that the comparative advantage in the processing of fish and fish products sub-sector is increasing – however, given the already significant concentration of Seychelles' exports on processed fish and fish products, this could rather be interpreted as another indication that little or no export diversification has occurred during the period.

Regarding the two other sub-sectors, Seychelles' RCA is below 1 for all years since 2001, therefore the country can be said to have a comparative disadvantage in both the beverages sub-sector and the coconut oil and essential oils sub-sector.

Trends over the period also indicate a decline in the RCA value for both sectors, which would suggest that the comparative disadvantage of both sectors has been reinforced in recent years. However, in the case of the beverages sector, the decrease of the RCA value is

misleading because the sudden drop of the RCA from 2009 onwards may be due to the fact that ITC TradeMap's data for 2009-2012 is based on partner reported data (mirror data), i.e. a different source than the 2001-2008 data<sup>37</sup>: NBS export data indicate that the share of beverages in total exports has actually increased steadily since 2008 (mainly due to increased rum exports) and that as a result the RCA value of the beverages sub-sector actually increased over the period (while remaining well below 1). This indicates that Seychelles' comparative disadvantage in beverages actually tends to reduce.

In the case of the coconut oil and essential oils sub-sector, the NBS data confirm that exports of coconut oil have strongly declined until 2002 and almost stopped since, while exports of essential oils over the 2001-2012 period consisted only of small volumes accounting for a very low share of Seychelles' exports, thereby barely influencing the RCA value. As a result, the analysis of the NBS data confirms that the RCA for the sub-sector strongly declined from 2001 to 2003 and remained very low since. This indicates that Seychelles' comparative disadvantage in the coconut oil and essentials has indeed been reinforced over the 2001-2012 period.

<sup>37</sup>In the specific case of beverages, the ITC TradeMap 2001-2008 data seem to include more re-exports than the 2009-2012 partner reported data (mirror data).





## 2. EXPLAINING COMPETITIVENESS AND COMPARATIVE ADVANTAGE

### 2.1 Enablers for the Manufacturing Industry

#### 2.1.1 Overview

The World Economic Forum defines competitiveness as the set of institutions, policies and factors that determine the level of productivity of a country (World Economic Forum 2013). In this context, a wide range of factors determine the level of productivity and competitiveness of a country, including, inter alia: legal and regulatory environment, support institutions, infrastructure, higher education and training, market efficiency (including labour market efficiency), market size, financial market development, technological readiness and innovation. All these factors can be enablers (or disenablers) for the manufacturing industry.

Seychelles was ranked 74<sup>th</sup> out of 185 economies in the World Bank's Doing Business 2013 report, which measures the overall ease of doing business – the only study country that obtained a higher ranking is Rwanda, which ranked 52<sup>nd</sup>. As shown in table 12, the lowest scores were registered for the indicators "Getting Electricity" and "Getting Credit": interviews with stakeholders on-site in Seychelles confirmed that these were indeed two of the major constraints for the manufacturing sector.

A relatively low score was also registered for the indicator "Starting a Business": however, significant efforts are ongoing to simplify business registration and it is anticipated that the country will rank much higher in next year's report. Indeed, a one-stop shop for starting a business has been set up in August 2012 at the Office of Registrar General, which has resulted in a reduction in the estimated number of days to start a business to three days (from 39 days<sup>39</sup>). An online version is also foreseen later in 2013.

Table 12: Overview of Doing Business indicators for Seychelles<sup>39</sup>

Indicators	DB 2013 Rank	DB 2012 Rank	Change in Rank
Starting a Business	117	114	-3
Dealing with Construction Permits	57	59	+2
Getting Electricity	144	140	-4
Registering Property	66	61	-5
Getting Credit	167	165	-2
Protecting Investors	70	66	-4
Paying Taxes	20	22	+2
Trading Across Borders	33	34	+1
Enforcing Contracts	83	81	-2
Resolving Insolvency	65	68	+3
Overall Ease of Doing Business	74	76	+2

Source: IFC / World Bank's Doing Business 2013.

In the World Economic Forum's Global Competitiveness Report 2013/2014, Seychelles ranks 80th overall and 5th among Sub-Saharan Africa countries – the only study country obtaining a better score is Rwanda which ranks 66th overall. The Report notes the following about Seychelles:

"The country registers a solid performance in the basic requirements for competitiveness: It benefits from strong and

well-functioning institutions by regional standards (45<sup>th</sup>), with strong public trust in politicians (32<sup>nd</sup>) and a government that is seen as efficient (37<sup>th</sup>). Infrastructure is also relatively well developed (43<sup>rd</sup>) and the Seychelles do well in regional comparison when it comes to health and primary education (55<sup>th</sup>). As the country is now approaching the innovation-driven stage of development, it needs to lay the fundamentals for

<sup>39</sup>In addition to the provision of a single point of entry, it is now no longer a requirement to use a notary or lawyer to sign off documents when creating a company (which speeds up the registration process and reduces costs) and a unique business registration number and tax identification number is now issued at registration.

<sup>39</sup>This table lists the overall "Ease of Doing Business" rank (out of 185 economies) and the rankings by each topic.

higher-value added growth. This will require improvements in higher education and training (79<sup>th</sup>) particularly in view of its very low tertiary enrolment rates (2.6%), its weak math and science education and limited availability of research and training services."

The following sections analyse the various enablers (or disenablers) for the manufacturing industry in more detail with a view to assess how and to what extent they impact on the performance of Seychelles' manufacturing sector.

## 2.1.2 Legal and regulatory environment

The legal and regulatory environment relevant for the manufacturing sector comprises a large number of acts and regulations. The most relevant acts include:

- The Companies Ordinance Act (1972, amended in 2011 and 2012) governs all companies operating in Seychelles and is currently being revised (specifically, 20 provisions of the current Act are revised with a view to modernize it in line with international best practices and support online registration of businesses and other e-government services).
- The International Business Companies Act (1994) and the Company Special Licence Act (2003) provide for the incorporation of offshore companies, which carry on business outside the Seychelles.
- The Investment Code of Seychelles Act (2005) aims to provide a legal environment that is conducive to a greater flow of investment in Seychelles and for the protection of the rights of the investors. It is applicable to both domestic and foreign investors but does not cover investments relating to International Trade Zones, which are governed by the SITZ Act mentioned below. There are no limitations on the participation of foreign capital except for sectors considered as "restricted" or "strategic" areas of investment: "Restricted" areas refer to activities which are reserved for domestic investors only, while "strategic" areas relate to sectors in which domestic and foreign investors may be allowed to operate subject to conditions designed to protect the public interest. In terms of manufacturing activities, the following areas are considered either strategic or restricted:
  - **Strategic areas:** Manufacture and distribution of arms and ammunition; Airspace related activity, Animal feed, hatchery, parent stock and abattoir; Production, storage and distribution of hazardous substances.
  - **Restricted areas:** Production and processing of pig and poultry (livestock); Cottage industry projects; small industrial businesses (except where the project introduces or ventures into an area never before invested in or it introduces new technology that has never before been applied in Seychelles, then it will fall under the strategic area).
- The Seychelles International Trade Zone (SITZ) Act (1995) provides for the establishment of international trade zones: under this Act, the Minister of Finance can declare any area of land within the territory of the country as an International Trade Zone. More details on the SITZ can be found in section 2.1.4.
- The Seychelles Licenses Act (1986) contains licensing criteria for 225 categories of licensable activities, including manufacturing activities.
- The Copyrights Act & Regulations (1991), Trade Marks Decree and Regulations (1991) and Patents Act (1991) lay down the procedures and measures dealing with infringement of intellectual property rights. However, these are considered outdated and a new Intellectual Property Act is currently being finalised. In this context, a new Agency dedicated to IP Rights is also expected to be created in the near future.
- The Employment Act (1995, amended in 1999, 2006, 2007, 2008, 2009 and 2010) applies to both Seychellois and expatriate workers. Seychelles has a relatively restrictive labour legislation but the Government is currently reviewing the Act with the assistance of the ILO, with a view to increasing labour market flexibility and clarifying key legal terms.
- The Agriculture and Fisheries (Incentives) Act (2005) makes provisions to grant specific incentives to inter alia agricultural processors and fish processors. More details on these incentives can be found in section 2.1.4.
- The Customs Management Act (2012): this recent legislation aims to improve the efficiency and governance of Seychelles Revenue Commission's customs department by providing it with new procedures and legislative powers. More details on the CMA can be found in section 2.1.7.
- The Small Enterprise Promotion Agency Act (2004) contains the objectives, governance and funding of the Small Enterprise Promotion Agency (SEnPA) which was created through its enactment.
- The Seychelles Bureau of Standards Act (1987, amended in 1995) formally established the Seychelles Bureau of Standards (SBS) and specified its functions, while legally prescribing standardisation as a policy to be applied to commodities, processes and practices. A new Bill is in preparation to make the Act WTO-compliant.

In the context of the WTO accession process, Seychelles is undertaking a comprehensive revision of its legislative framework in order to bring national laws, regulations and practices into line with WTO agreements. During the last few years the Government has undertaken a significant amount of work to identify the required legislative changes and has completed the drafting of some of the necessary legislation, including the Customs Management Act of

2012 and preliminary drafts of the Seychelles Bureau of Standards Bill, the Copyrights Bill, and the Industrial Property Bill. Some more laws and regulations need to be changed to bring them into line with the WTO requirements. Examples include the Food Act, Customs Management (Valuation of Goods) Regulations, and Customs Management (Origin of Goods) Regulations.

### 2.1.3 Industrial, innovation and manufacturing sector policies

The Industrial Policy dates back to 1996 and is no longer relevant because at the time the economy was relatively closed. The Government has taken steps to revise the Industrial Policy; in this context, a Policy Review Committee has been created and a draft policy is under preparation. The new Industrial Policy is expected to be completed in the second quarter of 2014.

In the absence of an updated strategic policy document, the current policy of the Government as regards the manufacturing sector can be summarised as follows:

- The overall vision is to increase the contribution of the manufacturing sector to the socio-economic development of the country by promoting innovation, value addition, processing and exports of competitive products;
- The Government does not target any specific manufacturing sub-sectors: rather, the focus is on small-scale/light manufacturing in general, as opposed to heavy industries which could be a threat to Seychelles' fragile and pristine environment, on which the main pillars of the economy (tourism and fisheries) heavily depend;
- The focus on small-scale manufacturing also means that the Government targets in particular SMEs which are anticipated to be the key drivers in Seychelles' industrial development;
- One specific objective is to encourage manufacturing companies to look beyond local markets and be more market- and export-oriented, since the domestic market is very limited. In this context, the government would like the revised Industrial Policy to have a greater orientation towards export development (including export diversification).

Specific measures for the fish-processing sector are guided by the Fisheries Policy (2005) and implemented by the Seychelles Fishing Authority (SFA). The focus is inter alia on the following aspects:

- Promotion of onshore value-adding activities through the provision of land, cold storage facilities and ice, warehouses, building of quays and subsidising fuel. In this context, a significant project is the new industrial fishing quay that is being built at Ile du Port, where fish-processing facilities are being set up along with facilities for related services. Similar facilities are also being set up at Providence (Seychelles' main manufacturing zone) and Bel Ombre to attract fish-processing activities. The objective is to increase the percentage of catch processed on the islands and increase Seychellois ownership

of the processing industry, with the ultimate goal to "transform the Seychelles from a trans-shipment hub into the main fish processing centre in the Indian Ocean, by encouraging investment and increasing competitiveness".

- Promotion of the locally-owned semi-industrial fleet by supporting the development of long-line fishing (using funding from the Fisheries Development Fund managed by DBS on behalf of SFA; see section for more details on the Fisheries Development Fund), which in turn is also expected to create more opportunities for onshore value-adding activities;
- Promotion of the aquaculture/mariculture sector: in this context, a Master Plan for Aquaculture is expected to be completed soon.

Other relevant policies guiding the manufacturing sector include:

- The National SME Policy and Strategy for Seychelles (2007), because of the current prevalence of SMEs in the manufacturing sector and the focus of the government on small-scale manufacturing;
- The Craft Policy and Strategies of Seychelles (2002), which guides the Government's policies as regards the crafts sub-sector.

### 2.1.4 Incentives for the manufacturing sector

Scarcity of land is a major constraint for the development of the manufacturing sector in Seychelles. There is high demand for operating space in Seychelles and very limited land available, in particular in light of the fact that 50% of the Seychelles land mass is afforded some degree of environmental protection. The limited availability of land is a problem for all economic activities but even more so for manufacturing, which tends to require more space than services activities. In this context, a large part of the Government's incentives for the manufacturing sector focuses on the provision of land for manufacturing purposes.

The Providence Industrial Estate (PIE) is the main manufacturing zone in Seychelles. Located mid-way between the country's international airport and the capital Victoria, the zone has been set aside for light manufacturing use with support infrastructure. To apply for operating space at Providence, the product must be accepted locally, in line with standards in terms of packaging, labelling, etc. However, some stakeholders commented that it was difficult for smaller firms to enter the industrial zone. Another weakness is the fragmented management of the industrial zone, as responsibilities are shared between various institutions such as the Landscape and Waste Management Agency (LWMA), the Ministry of Land Use and Housing (MLUH), Seychelles Licensing Authority (SLA), etc. The Government is aware of this issue and considers creating a new agency, the Industrial Estate Properties Agency (IEPA), to manage the PIE: this option is currently being discussed with Cabinet.

Other small industrial sites exist (such as for example the Union Vale

workshops which host activities in the field of beverages, carpentry, furniture and metals), but the Government endeavours to identify more sites to meet the needs of the sector. One example is the "One District One Project" initiative, which is a programme driven by the Department of Entrepreneurship Development and Business Innovation (DEDBI) to support SMEs in accessing land and operating space. The concept is to set up small industrial park projects that would reduce the costs of SMEs in acquiring operating space while taking into account each district's needs, in particular in terms of employment. However, the programme is facing funding constraints: several projects have been identified and detailed plans have been prepared, but no funding is available.

To address the constraint of land scarcity, the Government has also undertaken several land reclamation works, in particular on the eastern coast of the main island Mahé through the long-term "Victoria Expansion and Modernisation Programme", which aims at extending the area around Victoria by reaching out to sea to create usable flat land. Specifically, the following reclaimed land areas are expected to provide space for light manufacturing activities:

- Ile du Port (54 ha) will essentially consist of port facilities and fish-processing activities: 30 ha have been allocated to the fisheries sector. As mentioned in the previous section, construction has started on a 120-metre industrial quay and plots have been allocated to set up fish-processing facilities as well as facilities for related services (such as gear suppliers, ship repair, net repair, salt storage and other logistics).
- Ile Perseverance (94 ha) and Ile Soleil (14 ha): both are mainly housing projects but a small area has been demarcated on each for light manufacturing purposes<sup>40</sup>.
- Eve Island, on Praslin, includes a new commercial port with a 178-metre quay, and it is considered to set up all Praslin's industry on this reclaimed island – an area has been specifically allocated to seafood processing and cold storage to develop a "seafood cluster".

In addition to the above, there is also the Seychelles International Trade Zone (SITZ), which targets export-oriented companies and aims to combine the benefits of a free port and an export processing zone. The SITZ is however a specific offshore regime rather than a geographically-designated area: some companies under the SITZ regime are in fact not based in the main zone, due to space constraints. In total, about 20 companies are in the SITZ including five involved in manufacturing<sup>41</sup>. It is currently planned to expand the SITZ but in the context of this expansion no specific sectors have been

targeted. The concessions available to license holders in the SITZ include:

- Exemption from customs duties on capital equipment to be used in the SITZ;
- Exemption from Business Tax, Trades Tax and Withholding Tax;
- Exemption from social security contributions;
- Exemption from fees in respect of "gainful occupation permits" (work permits for foreign workers);
- Entitlement to employ 100% foreign labour.

Regarding onshore companies, specific incentives are provided to agricultural processors and fish-processors under the Agriculture and Fisheries (Incentives) Act (2005), including: concessions on fuel (rebate rates), exemption from Goods and Services Tax (GST)<sup>42</sup> and Trades Tax on specific imports, Business Tax rebate<sup>43</sup>, as well as concessions on social security contributions and gainful occupation permits.

## 2.1.5 Support institutions

The main support institutions relevant for the manufacturing sector are the following:

- The Department of Entrepreneurship Development and Business Innovation (DEDBI) is the department in charge of the development and promotion of the manufacturing sector and is also the lead department guiding the strategic implementation of the SME policy objectives. DEDBI used to be under the Ministry of Natural Resources and Industry (it was then called the Department of Industry) but further to the restructuring of the Ministry in 2013<sup>44</sup>, the Department is now under the President's Office.
- The Small Enterprise Promotion Agency (SEnPA) was created in 2005 and, in accordance with the 2007 SME Policy, is the lead agency executing the implementation of SME development strategies and programmes. SEnPA's functions are stretched over a range of inter-related but distinct areas including trade promotion (such as the organisation of fairs and exhibitions), policy implementation, property development and management, training and business advisory services. So far, SEnPA has supported primarily "cottage industries" (i.e. micro-enterprises, from 1 to 5 employees), but the mandate of the agency is being revised and it is expected to focus more on SMEs in the future. Likewise, while SEnPA has been active so far in

<sup>40</sup>It must be noted however that in previous instances such demarcated areas were in the end used for other purposes: on Ile Aurore for example (another reclaimed land project, 56 ha), light manufacturing activities were also anticipated but in the end no manufacturing projects were started there, only high-end tourism development.

<sup>41</sup>Manufacturing firms under the SITZ regime include: IOT (canned tuna), Ardagh (metal cans), Chelle Medical (orthopaedic appliances), La Buse (beverages) and Seaside Tobacco (cigarettes).

<sup>42</sup>The Goods and Services Tax was replaced in 2013 by the Value Added Tax (VAT), but the concessions granted to agricultural processors and fish processors will continue to apply despite the cessation of GST. Instead of obtaining those concessions under the AFIA these concessions will be given under other laws and regulations.

<sup>43</sup>Agricultural processors and fish-processors benefit from a reduced 15% flat business tax rate on all taxable income above 240,000 SR (the rate is 0% for the taxable income below 240,000 SR).

<sup>44</sup>Following the restructuring, the name of the Ministry was changed to Ministry of Natural Resources.



assisting entrepreneurs starting their business, it now wants to focus more on assisting them also to stay in business.

- The Seychelles Investment Board (SIB) is the specialised investment facilitation agency for both domestic and foreign investors and aims to be a one-stop shop for all matters relating to business and investment in Seychelles. SIB potentially has a critical role to play in the development of the manufacturing sector through the promotion of joint venture partnerships, linkages with larger companies and facilitation of inward investments.
- The Seychelles International Business Authority (SIBA) administers the Seychelles International Trade Zone (SITZ): it acts as a one-stop shop, licensing and regulating offshore activities (SIBA is thus in principle the only contact point for offshore companies). It focuses therefore on attracting foreign investment.
- The Seychelles Bureau of Standards (SBS) is a parastatal body whose core activities are standards development, certification, quality management, metrology and testing. In this context, SBS offers services such as conformity assessment, export certification, assistance in relation to ISO 9000 certification, etc. SBS provides significant support to the main export industry of fish and fish products, as the Fish Inspection and Quality Control Unit within SBS is responsible for ensuring the quality of material destined for export locations (SBS is the official testing laboratory appointed as the Competent Authority as required by the legally binding EU Directives).
- The Development Bank of Seychelles (DBS) was established in 1977 as a development finance institution with a specific mandate to assist in the economic development of Seychelles. DBS finances projects in the fields of agriculture, fishery, manufacturing, services, tourism and construction. To qualify, the applicant must be a Seychellois citizen or a company incorporated in Seychelles with at least 51% Seychellois ownership. DBS was restructured by the government in 2012 to focus more on SMEs and incorporated as a company. More details on DBS' activities can be found in section 2.1.8.
- The Small Business Financing Agency (SBFA) is a new agency that provides micro-lending to small entrepreneurs (until 2012 it was called the Concessionary Credit Agency and was a division within the Ministry of Finance). More details on SBFA's activities can be found in section 2.1.8.
- Private sector associations: The Seychelles Chamber

of Commerce & Industry (SCCI) is a voluntary association of businesses operating in Seychelles. It is the most representative intermediary body of the private sector and usually represents the private sector in public-private dialogue platforms. On the other hand, few operational sector associations currently exist. A Food Processors Association was for example set up but it is now dormant. Moreover, although fish-processing is a prominent sub-sector in the country's economy and is expected to grow in the coming years, no fish processors association currently exists in Seychelles (there is only an association of fishing boat owners which in practice represents the artisanal fishing sector). To ensure better representation and advocacy of specific sectors, sector associations would need to be upgraded and empowered, or alternatively (since the small size of the economy is understandably a limiting factor to the emergence of sector associations in Seychelles) sections/focal points dedicated to specific sectors could be put in place within the existing SCCI.

The fact that the DEDBI is now under the President's Office was generally perceived as a positive development by stakeholders, as it was interpreted as an acknowledgement that the promotion of the manufacturing sector and SMEs is a priority area and also because it was anticipated that it would facilitate the approval of decisions and strategies. However, the DEDBI currently has limited staff and seems to have limited means relative to the tasks it has been entrusted with.

SEnPA has also been entrusted with a wide range of tasks through the 2007 SME Policy but faces capacity constraints. SEnPA has for example foreseen to conduct a comprehensive SME needs assessment and then to plan and programme support based on the results of the assessment, but the agency noted that as a first step it will have to build its own capacities and do some internal training (in this context SEnPA will benefit from technical assistance funded by the African Development Bank).

Regarding SBS, the competence and efficiency of the Fish Inspection and Quality Control Unit was generally acknowledged by stakeholders (one stakeholder from the fish-processing sub-sector commented for example that SBS' Fish Inspection and Quality Control Unit was much more competent than its equivalent in Ghana<sup>45</sup>). However, SBS has been experiencing challenges in some of its other activities. For example, SBS has been attempting to promote firms to adopt the ISO 9000 quality system, but very few have done so, given that the initial cost is quite high especially for small firms. Also, SBS has developed a product certification mark ("SBS Mark") but there was no interest from the business sector (the main reason for this being probably the limited size of Seychelles' market). Finally, in the context of the manufacturing sector's limited diversification, difficulties have

<sup>45</sup>This could inter alia be explained by the fact Seychelles' fish exports represent the bulk of the country's total merchandise exports, while Ghana's fish exports account for a much smaller share of the country's total merchandise exports.

been experienced in testing certain “new” products.

The current institutional framework lacks an institution that would specifically be providing support to manufacturing companies in the field of market access and export development. Previously, an Export Development and Promotion Facility (EDPF) existed whose aim was to orient SMEs towards producing quality goods with export potentials and assist them in their endeavour to export. The EDPF also had launched an Export Marketing Scheme (EMS) to provide partial financial assistance for local businesses to undertake activities relevant to exports. However both the EDPF and the EMS have been discontinued. In principle, SEnPA could be the right agency to provide more systematically support in this field, but as mentioned above it is already facing capacity constraints<sup>46</sup>.

In general, several stakeholders commented that there was not sufficient information sharing and coordination between the relevant agencies. One example is the fact that each agency or institution seems to use its own system to classify companies and no single definition of small enterprises, medium enterprises and large enterprises seems to be shared by all institutions. There is thus a need for more coordination and harmonisation between agencies: in this context, some stakeholders suggested setting up for example a common system or database with data on the industry/the manufacturing sector to better share the information between all relevant agencies.

## 2.1.6 Infrastructure: Energy, Water, Transport and Communication

### Energy

While the availability of electricity does not generally seem to be an issue (although occasional electricity cuts were for example mentioned on Praslin), the cost of electricity was mentioned by all stakeholders as a major constraint for the manufacturing sector.

The country's great reliance on imported energy renders the cost of energy relatively high and volatile. Seychelles currently relies on diesel generators to produce most of its electricity and as a result fossil fuels account for about 25% of the country's total net imports. The cost of electricity has increased significantly in recent years and accounts for a large share of manufacturing companies' overheads. It is also worth noting that there is currently no flat unit rate in Seychelles for electricity – or utilities in general – and the unit rate in fact increases with consumption: this means in practice that the more a company produces, the higher the utility cost. Export-oriented companies, notably fish-processors, used to benefit from a discount on the cost of electricity but this scheme was abandoned in 2012<sup>47</sup>. The fact that the

cost of electricity is higher in Seychelles than in competitor countries affects the competitiveness of the country's manufacturing sector as well as the ability of the country to attract new manufacturing activities.

In this context, Seychelles aims to diversify its energy mix and reduce its heavy dependence on imported fossil fuel by developing renewable energies: the country's target is to have 15% of energy from renewable sources by 2030. A new Energy Act was enacted in December 2012 and is actively encouraging investment in wind energy, waste renewal and, in particular, solar power. Provisions were also made for independent power producers using renewable energy to access the national grid and operate alongside the Public Utilities Corporation (PUC): therefore the state's power monopoly has ended and now anyone can produce and sell energy.

Seychelles inaugurated in June 2013 on Mahé its first large-scale wind farm project, the Port Victoria Wind Farm, which is expected to meet 8% of the main island's electricity demand. Wind turbines are also planned to be installed on La Digue, one of the two other main islands. Regarding solar power, the Seychelles Energy Commission is implementing a project to install rooftop photovoltaic systems in selected islands, with a focus on small-scale producers that are already connected to the national electricity grid. The Government hopes these developments will contribute to bringing down the cost of electricity.

Finally, it can be noted that there were recent petroleum discoveries off Eastern Africa and seismic tests indicate the possible presence of hydrocarbon in Seychelles' EEZ. A new state-owned company (Petro Seychelles, which was established in 2012) is responsible for the upstream sector of the oil industry, including the promotion and supervision of oil exploration activities in Seychelles' waters. If and when extraction begins, an independent regulatory body will be established.

### Water

The cost of water is also relatively high in Seychelles while this is an important factor for some manufacturing sub-sectors, in particular fish processing due to the use of freezers, ice plants, etc. The cost of water is for example significantly higher in Seychelles than in competitor countries in the canned tuna sub-sector. Moreover, gaps in water distribution are also a constraint. According to a paper by the COMESA Business Council<sup>48</sup>, the PUC can only meet about 60% of the demand for potable water: as a result, water rationing and stoppages of supply affect the development of the manufacturing sector.

To address these issues, the PUC has launched in 2012 a large water

<sup>46</sup>Also, given SEnPA's mandate such support would only be for SMEs – although this is broadly in line with the Government's policy focus regarding the manufacturing sector.

<sup>47</sup>Stakeholders noted however that even when they were benefitting from this discount (which reduced their electricity cost to less than a third compared to current costs), their costs were still higher than competitors in countries such as Mauritius.

<sup>48</sup>COMESA Business Council (2013) “Unlocking the potential of the manufacturing sector in the COMESA region: A private sector position paper addressing the Constraints to Manufacturing Industry when trading in the COMESA region”, CBC, Business Policy Unit, July 2013.

and sanitation programme that will focus inter alia on increasing the capacity of the four existing desalination plants and making improvements to the two water treatment plants. The total value of the programme, to be implemented over the 2012-2016 period, is EU 54.6 million (with co-funding from the European Investment Bank and other donors).

## Transport

As noted in WEF's Global Competitiveness Report, Seychelles' transport infrastructure is relatively well developed: out of 148 economies, Seychelles ranked 45<sup>th</sup> for the quality of port infrastructure, 54<sup>th</sup> for the quality of air transport infrastructure and 56<sup>th</sup> for the quality of roads. Due to the fishing industry, Port Victoria has developed to a remarkable level for such a small country: it is the deepest sea port in the Indian Ocean.

However, there are still infrastructural deficiencies or scope for improvement in certain areas. For example, the road network on the main island is overburdened: there are several projects in planning to address this issue and the government is investing heavily in this field. Both the port and airport infrastructure are also being modernised and expanded. Finally, there are currently limited regional transport links to mainland Africa and other Indian Ocean islands.

In this context, the government has a Public Sector Investment Plan

(PSIP) and the African Development Bank plans to conduct an infrastructure needs study in 2013 which will lead to the development of an Infrastructure Action Plan for Seychelles.

## Communication

The successful installation in 2012 of the first submarine fibre optic cable for international connections to the Seychelles<sup>49</sup> is expected to increase the archipelago's global connectivity and dramatically improve both telecommunications and internet access in the Seychelles, with international transmission prices estimated at being potentially seven times cheaper than previous prices.

Following the cable's installation, data consumption has markedly increased and internet service providers expect internet traffic to grow at double digit rates for the foreseeable future. Indicators show that mobile accounts and local calls have both increased by 4.2% and 4.9% respectively, while international calls have declined by 5.8% due to the increased usage of internet applications for global communications<sup>50</sup>.

As shown in table 13, the communication infrastructure in Seychelles is much more developed than in the six other study countries and compares well with the communication infrastructure of the benchmark countries.

**Table 13: Indicators on communication infrastructure in Seychelles and benchmark countries, 2012**

Indicators	Seychelles	Eastern Africa average *	South Africa	Vietnam	China	Rep. Korea
Telephone lines (per 100 people)	33.1	0.6	7.9	11.4	20.6	61.9
Mobile cellular subscriptions (per 100 people)	158.6	45.8	134.8	149.4	81.3	110.4
Internet users (per 100 people)	47.1	11.8	41.0	39.5	42.3	84.1
Fixed broadband Internet subscribers (per 100 people)	11.7	0.05	2.2	5.0	13.0	37.6
Secure Internet servers (per 1 million people)	1127.8	1.5	83.7	6.7	3.1	2751.6

\* Calculated as the average of the values for the six other study countries, i.e. excluding the value for Seychelles of the corresponding indicator.  
Source: World Bank's World Bank Development Indicators.

## 2.1.7 Trade logistics

Seychelles is not covered by the World Bank's Logistics Performance Index, but indicators from the Doing Business 2013 report and WEF's Global Competitiveness Report 2013/2014 suggest that in terms of trading across borders and customs clearance Seychelles performs

better than the average of the other study countries and compares well with the benchmark countries (Table 14). Indeed, among benchmark countries only South Korea performs better for most indicators. As mentioned in section 2.1.1, trading across borders is one of the two Doing Business indicators for which Seychelles obtained the best ranking (33<sup>rd</sup> out of 185 economies).

<sup>49</sup>The Seychelles East African System (SEAS) cable is a 1,930 km cable from Mahé to the existing Eastern Africa Submarine Cable System in Tanzania. It was a public-private partnership investment with financing from key international development finance institutions (EIB and African Development Bank).

<sup>50</sup>Central Bank of Seychelles, Annual Report 2012.

Table 14: Trading across borders indicators for Seychelles and selected benchmark countries, 2013

Indicators	Seychelles	Eastern Africa average *	South Africa	Vietnam	China	Rep. Korea
Burden of customs procedure, WEF (1=extremely inefficient to 7=extremely efficient)	4.4	3.7	4.3	3.4	4.2	4.4
Documents to export (number)	5	7.7	6	6	8	3
Time to export (days)	16	30.0	16	21	21	7
Cost to export (USD per container)	876	2453	1620	610	580	665
Documents to import (number)	5	9.0	7	8	5	3
Time to import (days)	17	35.2	23	21	24	7
Cost to import (USD per container)	876	3298	1940	600	615	695

\* Calculated as the average of the values for the six other study countries, i.e. excluding the value for Seychelles of the corresponding indicator.  
Source: World Economic Forum's Global Competitiveness Report 2013/14; World Bank's Doing Business 2013.

A new Customs Management Act (CMA) came into effect in July 2012 and is aimed at improving the efficiency and governance of Seychelles Revenue Commission's (SRC's) customs department. Customs clearance procedures were improved through the introduction of risk management and post-clearance audit procedures. The CMA also makes provision for a Customs Approved Secure Exports Scheme, which is open to all exporters and is aimed at providing traders with faster export clearance and minimise delays.

In this context, Seychelles also migrated to ASYCUDA World in June 2013: some difficulties were experienced when the migration took place and clearance was disrupted for about a week, but most issues seem to be resolved now. Trading across borders was thus made faster by introducing electronic submission of customs documents (e.g. on-line permit application for import/export).

According to SRC's Customs Division, clearing time is currently between one and two days if documents are properly filled in. Some stakeholders from the private sector reported however that delays can still be experienced due to a relative lack of cooperation between the customs and handling and clearance agents.

## 2.1.8 Access to finance

Seychelles' financial sector is relatively small and faces constraints typical of small states, notably diseconomies of scale (due to the limited market size) which hamper the supply of a broader range of financial services.

There are currently seven commercial banks which are regulated and supervised by the Central Bank of Seychelles. In addition, there are two non-banking financial institutions: the Seychelles Credit Union

and the Development Bank of Seychelles (DBS). Finally, the Government established a securities exchange at the end of November 2012 as part of its efforts to diversify the financial services sector.

Seychelles' financial services sector is regulated by the following laws: Financial Institutions Act 2004, Anti-Money Laundering Act 2006, Data Protection Act, Mutual and Hedge Fund Act 2007 and Central Bank Act 2004. A new law regulating financial leasing activities is being drafted and is expected to broaden the availability of credit to small businesses.

In general, bank lending to the private sector is limited and focuses on tourism, real estate, transportation, and construction – manufacturing accounts for a very limited share of total lending. While access to loan finance is generally not an issue for large companies, it is however a major constraint for SMEs (which comprise the vast majority of Seychelles' manufacturing sector as noted earlier). Commercial banks offer relatively high interest rates and have tended to neglect SMEs, as they were perceived to entail a high default risk. The various schemes with lower interest rates developed by the Government have so far not managed to fully address this gap: this has significantly affected the ability of SMEs to expand.

In this context, a new SME scheme was introduced in July 2013 by the Ministry of Trade, Finance and Investment, in partnership with several commercial banks<sup>51</sup>. The scheme covers loans of up to 3 million SR, with an interest rate of 5% on the first million and 7% on the remaining amount (the Government pays the difference between the interest paid by the client and the financial institution's prime lending rates) and a repayment period of five to seven years. Additional

<sup>51</sup>"Incentive Scheme for Small and Medium-Sized Enterprises (SMEs)", Ministry of Finance, 2013.



amounts above 3 million SR can be negotiated between the client and the lending institutions.

This new SME scheme will complement the loans already provided by DBS through a specific scheme for the financing of SMEs for which DBS has notably received co-funding from the European Investment Bank. Under that scheme, DBS provides loans from 25,000 SR to a maximum of 6 million SR (this amount can be exceeded if approved by the Ministry of Finance), with an interest rate of 10%. The vast majority of loans have however been directed at the services and tourism sectors and the share of loans for manufacturing projects is very low<sup>52</sup>. Most of the manufacturing projects were for the purchase of equipment and raw materials and concerned small-scale manufacturing activities (such as for example small carpentry business)<sup>53</sup>. In the specific field of fisheries, the scheme supported projects for the purchase or construction or repair and renovation of boats, engines, navigation equipment, fish traps, fishing gears and ice plants, including also fish storage and other related facilities. In its current budget, DBS has earmarked 10% for projects in the field of manufacturing but this is only an estimate and not a target. Moreover, DBS' total loan portfolio declined in 2012 as a result of its difficulties in obtaining affordable sources of funding, and almost no new loans were approved during that year (as the government restructured DBS) and lending only resumed in March 2013.

Furthermore, DBS manages two specific funds for fisheries and agriculture:

- The Fisheries Development Fund is endowed by financial contributions from the FPA that Seychelles signed with the EU and is managed by DBS on behalf of SFA. A total of EUR 5.6 million has been budgeted in 2013. This fund aims to boost investment in fisheries, including value addition and processing, purchasing of new long-line vessels, as well as upgrading existing long-line vessels. The Fund offers a very low interest rate (3%) with a repayment period of up to ten years and the promoter is requested to contribute a minimum of only 5% of the total project cost. Loans are up to EUR 500,000 per project. Most of the funds have been used so far to support the development of long-line fishing rather than to promote processing activities. SFA is however currently liaising with the EU for a replenishment of the part allocated to supporting processing activities, which was quite small and was quickly depleted. According to SFA, if the main objective at first was to allow more Seychellois fishermen to have access to long-line fishing (in order to facilitate the emergence of a Seychellois-owned semi-industrial fishery fleet), now the focus should turn to promoting and

supporting processing activities with a view to achieve more value addition.

- The Agricultural Development Fund is much smaller and dedicated to registered farmers. Only a small portion of loans are related to processing activities (loans were for example granted to producers of animal feed).

In addition to DBS, the other government finance institution providing loans to SMEs is the Small Business Finance Agency (SBFA), which targets specifically small entrepreneurs. As mentioned earlier, SBFA's focus is on micro-lending, with a cap of 300,000 SR and an interest rate ranging from 0 to 4% per annum. The funds available to SBFA have been doubled in 2013 by the Government. SBFA's portfolio includes however only a limited number of manufacturing activities, mostly small-scale food-processing, such as bakeries. SBFA is meant to have simpler procedures than DBS, but some stakeholders commented that the requirements and procedures are still relatively heavy for micro-enterprises.

Overall, the main constraints faced by SMEs in obtaining finance from DBS and SBFA can be summarised as follows:

- The loan approval process is long and cumbersome and since DBS and SBFA both have annual lending budgets, there is higher competition (as compared to commercial banks) amongst SMEs for funding;
- Both of these organizations only deal in term loans, and do not provide other financial products such as overdraft facility, letters of credit and revolving credit lines, which are quick and convenient means of generating short-term finance for businesses.

Finally, regarding the specific issue of access to foreign exchange, stakeholders from the private sector reported that it remains a significant constraint although the situation seems to have significantly improved in the last four years, due to the post-2008 reforms that lifted restrictions on foreign exchange convertibility.

### 2.1.9 Education, training and skills level

Similar to other Small Island States, Seychelles with a population of less than 90,000 faces serious skills shortages. The Seychelles labour force is very small (estimated at around 41,670<sup>54</sup>) and the limited availability of labour is a major constraint for the development of any economic activity. As a result, the country is characterised by a low unemployment rate<sup>55</sup>, and unemployment is structural in nature, reflecting a skills mismatch: the number of job offers exceeds the number of job seekers in every labour category. Indeed, while the limited availability of labour is a serious constraint in Seychelles in general, it is in particular difficult to recruit skilled labour, which is

<sup>52</sup>According to DBS' Annual Report 2011, the "industry sector" in 2011 accounted for 1% of loans, fisheries for 3% and agriculture for 7%; the services sector dominated the total loans approved with 67%, followed by tourism with 21%.

<sup>53</sup>Projects related to the production of tobacco and alcoholic beverages are not eligible under this scheme.

<sup>54</sup>National Bureau of Statistics' Labour Force Survey 2011/2012.

<sup>55</sup>According to NBS' Labour Force Survey 2011/2012, an estimated 4.1% of the labour force in Seychelles was unemployed in 2012.

crucial for the manufacturing sector.

Seychelles has one of the highest literacy rates in Africa<sup>56</sup> as well as one of the highest secondary education enrolment rate in the world<sup>57</sup>. Conversely, the country is characterised by a very low tertiary enrolment rate: available data suggests in fact that Seychelles has the lowest tertiary enrolment among the seven study countries<sup>58</sup>. This situation might however change in the coming years following the recent creation of the University of Seychelles in 2008, which incorporates the already existing Seychelles Institute of Technology (SIT).

The Seychelles workforce is therefore relatively educated but technical and specialised skills are lacking. The manufacturing sector is affected directly by the shortage of these skills because of its own labour needs but also indirectly due to the scarcity of supporting local professional services (e.g. lawyers, accountants, auditors, export specialists, etc.), which is also limiting growth. As a result, most industries have to import labour<sup>59</sup>: when the expertise is not available locally or undersupplied, the recruitment of expatriate labour is sometimes imperative (a "gainful occupation permit" can be granted by the authorities when the employment of expatriates is justified).

The Government is cognizant of the importance of a skilled population for stimulating national growth and has made efforts to develop technical and vocational training institutions with a view to reducing skills mismatch in higher value-added jobs. There are currently eight institutions providing tertiary education in Seychelles. In addition to the newly-created University of Seychelles which produced its first graduates in 2012, the Seychelles Institute of Technology trains mechanical engineers, carpenters, etc., and the Seychelles Institute of Management offers a variety of courses on general management and HR management, including in-company training. The Government has also launched an adult training programme (the Adult Learning and Distance Education Centre – ALDEC), which aims to provide adults and out-of-school youths with education that complements the formal schooling.

Notwithstanding these efforts, the vocational training available is still insufficient to address the skills gap. In practice, most manufacturing companies train their staff internally or in some cases send their staff for training overseas (one fish-processing company mentioned for example that they were sending their staff to Australia to get training on hygiene, handling of fish, etc.). Entrepreneurship skills are also lacking in Seychelles even though a "Certificate in Entrepreneurship Skills for

Small Businesses (CESBB)" was recently created at University of Seychelles, where banks are invited as observers.

The availability of vocational training for fish-processing activities would in particular need to be improved, especially in light of the current plans to promote value addition and create more fish-processing facilities at Ile du Port and other locations. The Maritime Training Center (MTC) was inaugurated in 2012 but is not focused on fisheries or industry: it provides training for all activities related to the sea (for example, the MTC trains seafarers, professions related to the tourism sector, etc). Moreover, even when the training is relevant to fisheries, it has been reported that once students have completed it, they often seek employment outside the fisheries sector: only 8% of MTC graduates work in sectors connected with the maritime economy. In light of this shortage of fisheries-related vocational training, SFA has recently taken steps to set up a partnership with the University of Seychelles to train people in fisheries.

In this context, it can be noted that university-industry linkages are also currently limited in Seychelles. The only type of partnership between the university and the business sector are apprenticeship or internship programmes in certain companies but these are mostly done on an ad hoc basis. Several stakeholders noted that stronger university-industry linkages would be worth developing.

The Government aims to pursue efforts in harnessing these constraints and is currently developing a Medium-Term Strategy for Education 2013-2017 (financed by EU budget support) as well as a National Human Resources Development Strategy for 2015 (supported by the African Development Bank).

## 2.2 Product Diversification and Structural Transformation of the Manufacturing Sector

### 2.2.1 Product diversification

Table 15 presents two indicators measuring Seychelles' manufactured exports product diversification: the ten-commodity concentration ratio and the Herfindahl-Hirschman Index (HHI). For both indicators, scores go from 0 (being the most diversified) to 1 (being the least diversified).

<sup>56</sup>The literacy rate of the population aged 15 and above was 91.8% in 2010 according to World Bank's WDI, which is well above the regional average.

<sup>57</sup>According to the WEF's Global Competitiveness Report 2013/2014 based on UNESCO statistics, Seychelles had with 123.9% the 3rd highest gross secondary education enrolment rate in the world after Australia (131.3%) and Spain (128.5%). Gross enrolment rates can exceed 100% due to the inclusion of over-aged and under-aged students because of early or late school entrance and grade repetition.

<sup>58</sup>According to World Bank's WDI, the tertiary enrollment rate for Seychelles was 2.6% in

2010, while the rates for the other study countries were the following: Burundi: 3.2% in 2010; Ethiopia: 7.6% in 2011; Kenya: 4.0% in 2009; Rwanda: 6.6% in 2011; Tanzania: 3.9% in 2012; Uganda: 9.1% in 2011.

<sup>59</sup>As the economy has grown, local labour supply has remained broadly unchanged, while foreign labour has increased from around one tenth to a quarter of the labour force (one third of private sector employment), mostly in high-growth sectors.



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**Table 15: Concentration of Seychelles' manufactured exports, by product**

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Concentration ratio <sup>60</sup>	0.99	0.98	0.99	0.99	0.98	0.99	n.a.	0.98	0.89	0.88	0.91	0.91
Herfindahl-Hirschman Index (HHI) <sup>61</sup>	0.7811	0.5326	0.5532	0.4072	0.5843	0.6313	n.a.	0.3137	0.4038	0.2868	0.4246	0.3300

Source: International Trade Centre's TradeMap.

The values obtained clearly indicate that Seychelles' manufactured exports are not very diversified. For example, the concentration ratio of 0.91 in 2012 means that the ten most important manufactured exports in 2012 accounted for 91% of total manufactured exports that year.

On the other hand, the trend of both indicators since 2001 would suggest that there has been some diversification in recent years and in terms of the HHI, 0.33 is in fact a relatively good score for a very small economy like Seychelles.

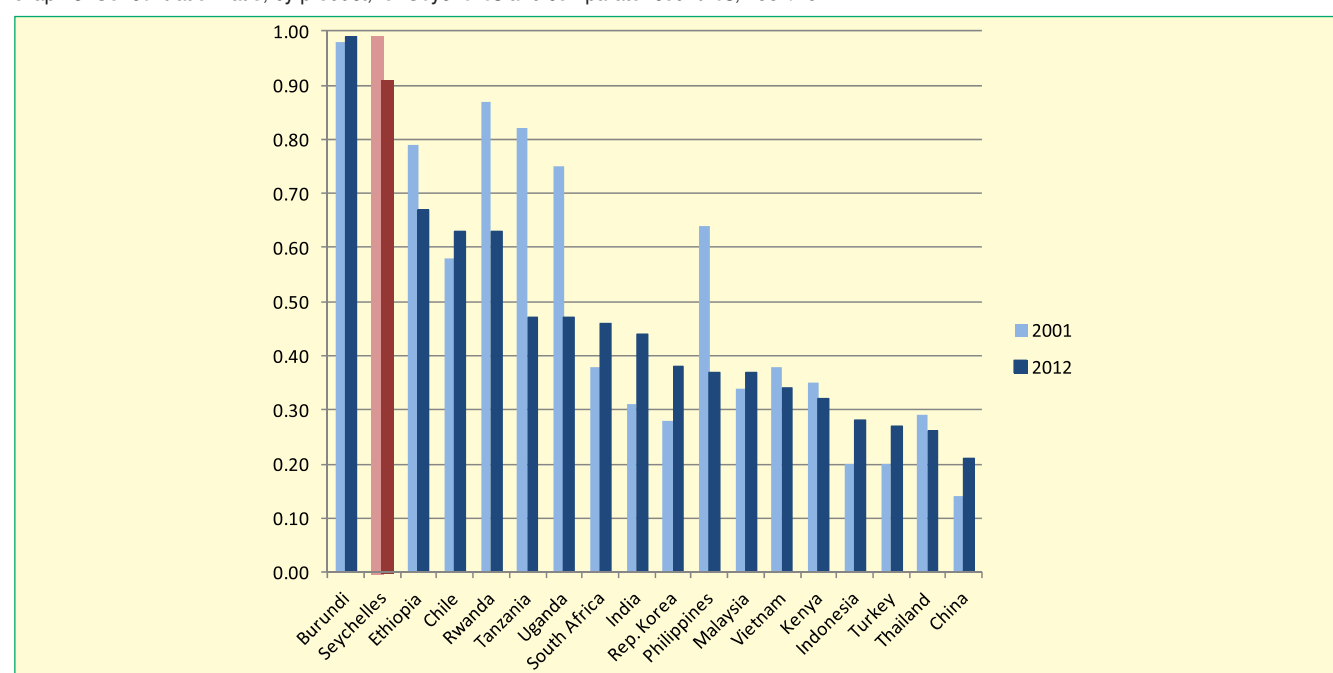
However, it is once again important to note that the calculations in are based on ITC TradeMap data which as mentioned before includes re-exports thereby artificially increasing diversification. This explains the drop of the concentration ratio from 2009 onwards (since the partner reported data for the period 2009-2012 includes large re-exports of various types of tuna products) and the relatively low scores for the

HHI (contrary to the concentration ratio formula, the HHI formula takes into account all product lines and is therefore more influenced by the presence of re-exports).

Using NBS export data, the values of both the concentration ratio and the HHI tend to be higher (0.99 for the concentration ratio and 0.8691 for the HHI for the year 2012) and also do not vary much over the period, suggesting that little export product diversification has actually taken place since 2001.

In any case, as shown in Graphs 6 and 7, Seychelles' manufactured exports are much less diversified (in terms of product diversification) than those of most of the other study countries and selected benchmark countries. This of course has to be put in perspective given that Seychelles is also by far the smallest economy among the group of benchmark countries, and small economies are generally less diversified in their export structure.

**Graph 6: Concentration ratio, by product, for Seychelles and comparator countries, 2001/2012**



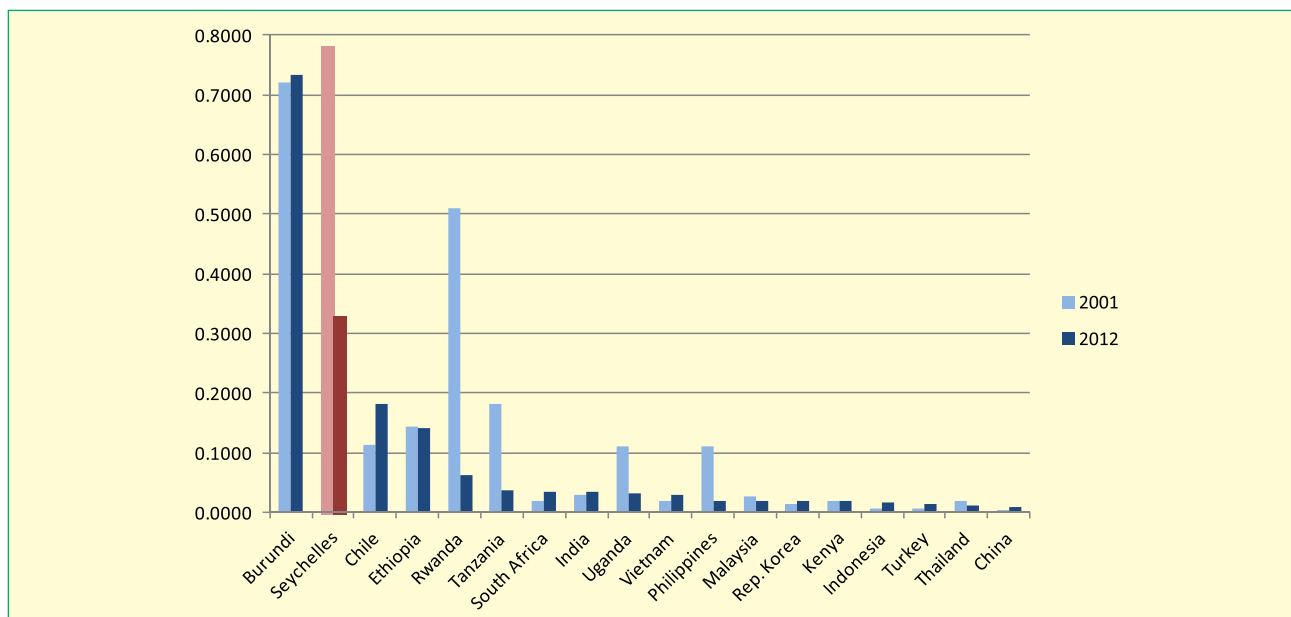
Note: For Burundi, 2003 data has been used instead of 2001 data.  
Source: International Trade Centre's TradeMap.

<sup>60</sup> The concentration ratio is calculated here as the share of the ten most important manufactured export products (at HS 6-digit level) in total manufactured exports.

<sup>61</sup>  $HHI = \sum s_i^2$  (where  $s_i$  is the share of export product  $i$  in total manufactured exports, in per cent).

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Graph 7: Herfindahl-Hirschman Index, by product, for Seychelles and comparator countries, 2001/2012



Note: For Burundi, 2003 data has been used instead of 2001 data.  
Source: International Trade Centre's TradeMap.

Table 16 presents another indicator to measure the product diversification of Seychelles' manufactured exports: the Manufactured Product Diversification Index (MPDI), which was originally developed by UNCTAD and then amended by UNIDO for manufacturing products. The MPDI measures the extent to which a

country depends on particular products relative to world exports: in other words, it compares a country's export structure with the world's export structure. Scores go from 0 (being the most diversified) to 1 (being the least diversified).

Table 16: Manufactured Product Diversification Index (MPDI)<sup>62</sup>

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
MPDI Seychelles	0.478	0.476	0.485	0.470	0.470	0.487	n.a.	0.460	0.453	0.439	0.459	0.462

Source: International Trade Centre's TradeMap.

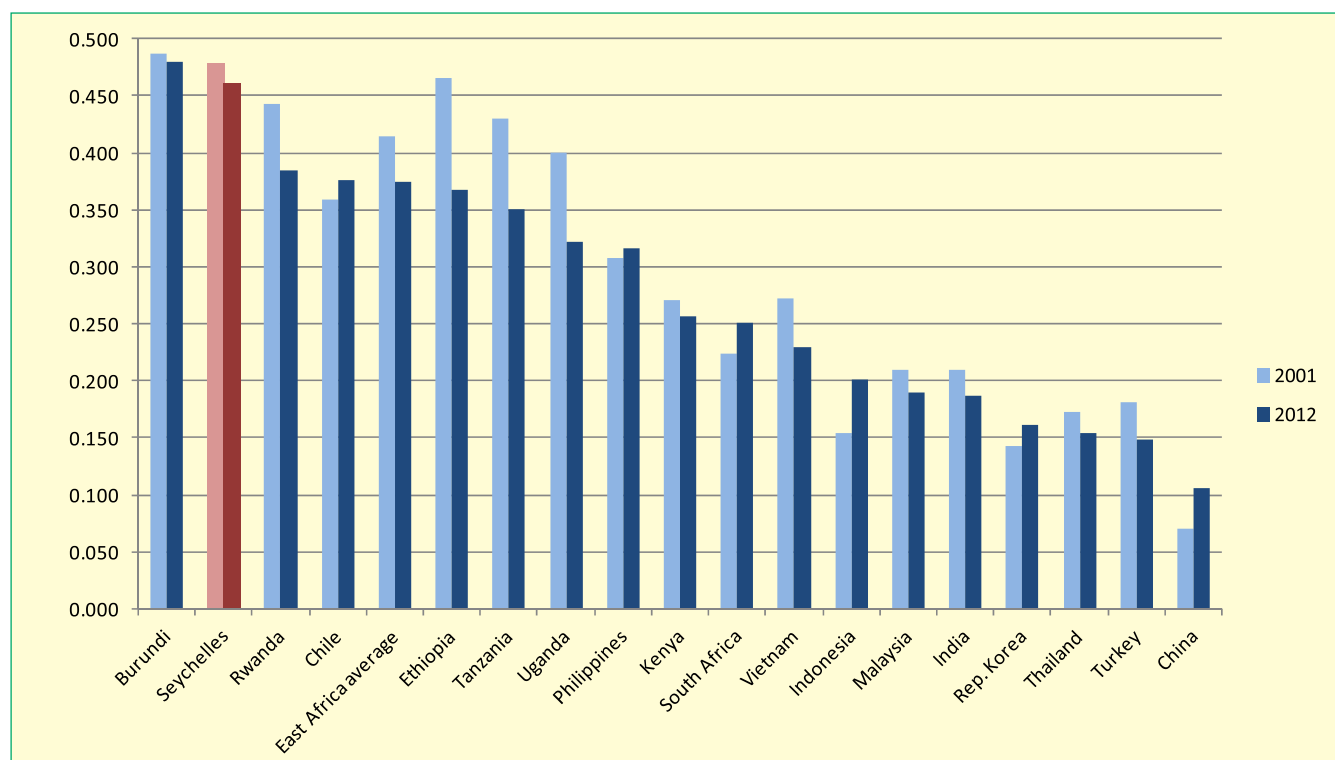
Graph 8 shows the evolution of the MPDI value from 2001 to

2012 for Seychelles and the benchmark countries.

<sup>62</sup>The Manufactured Product Diversification Index (MPDI) is computed by measuring absolute deviation of the country share from world structure, as follows:  $MPDI_i = \frac{\sum |b_{ij} - b_j|}{2}$  (where  $b_{ij}$  is the share of product  $i$  in total manufactured exports of country  $j$  and  $b_j$  is the share of product  $i$  in total world manufactured exports; only those manufactured products whose share in a country's total manufactured exports is 0.5 percent or above are considered).



Graph 8: Manufactured Product Diversification Index for Seychelles and comparator countries, 2001/2012



Note: For Burundi, 2003 data has been used instead of 2001 data.  
Source: International Trade Centre's TradeMap.

The trend since 2001 and the value of Seychelles' MPDI compared to comparator countries confirm the findings derived from the analysis of the two other indicators: Seychelles' manufactured exports are clearly one of the least diversified among the group of benchmark countries and little product diversification has taken place since 2001. The former does not come as a surprise given the small size of Seychelles' economy compared to other countries but the latter could be more cause for concern, because increased product diversification could reduce the country's dependence on a small number of products and hence vulnerability.

As has been discussed in section 1.2.2.3, only three new manufactured products have emerged in Seychelles' export structure in the last ten years, and two of them (fish oil and sea cucumbers) belong to the same sub-sector that was already dominating exports. Furthermore, one of these two products (fish oil) is a by-product of the canned tuna industry and is produced by a company owned by IOT: this reflects therefore vertical diversification rather than horizontal

diversification. Other than processed marine products, the only new manufactured export to have emerged is rum, but while rum exports are definitely on the rise, the share of this product in total manufactured exports is still very low, accounting for only 0.05 % of Seychelles' total manufactured exports.

In addition, Seychelles' manufactured exports are also very concentrated in terms of export markets. As shown in table 17, most exports in 2012 were to the EU, in particular three countries, France, UK and Italy, which together accounted for 88.6% of total manufactured exports. This reflects to a large extent the export markets for canned tuna.

None of the top ten export markets are SADC or COMESA members, and imports from the region are also relatively limited (the only significant imports from the region come from South Africa and Mauritius)<sup>63</sup>. This highlights that Seychelles is not involved in regional value chains.

<sup>63</sup>In 2008 South Africa accounted for 5.9% of Seychelles' total merchandise imports while Mauritius accounted for 4.7%. The majority of Seychelles' merchandise exports came from Europe, Asia and the Middle East (ITC TradeMap).

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Table 17: Top ten export markets for Seychelles' manufactured exports, 2012 Seychelles Rupee's nominal and real effective exchange rate, 2000-2012 (2007 = 100)

Country	Export value, in million USD	Share of total manufactured exports
France	121.2	45.2%
UK	72.4	27.0%
Italy	43.9	16.4%
Netherlands	6.3	2.3%
Hong Kong	5.5	2.0%
Denmark	4.0	1.5%
Switzerland	2.4	0.9%
Sri Lanka	2.2	0.8%
Germany	1.2	0.4%
Australia	1.1	0.4%
Total manufactured exports	268.2	100%

Source: Seychelles National Bureau of Statistics.

For the year 2012, the ten-country concentration ratio was 0.970 (meaning that the top ten export markets accounted in 2012 for 97.0% of Seychelles' manufactured exports) and the HHI by export market was 0.3054. Moreover, trends of the concentration ratio and HHI by export market since 2001 reveal that there has been little diversification over the 2000-2012 period (in 2000, the concentration ratio was 0.959 and the HHI by export market 0.2721). For all years, Seychelles' manufactured exports are dominated by exports to the EU – only the shares of the various EU countries tend to vary from year to year.

Seychelles has therefore made little progress in recent years in diversifying its exports, which remain highly concentrated both in terms of products and markets. Even though the small size of the economy is definitely a constraint to diversification, efforts should be

pursued to reduce the dependence on a small number of products and markets as this dependence makes the country highly vulnerable to external shocks.

### 2.2.2 Structural transformation

Table 18 presents the distribution of Seychelles' manufactured exports based on UNIDO's technological classification of manufactured exports. It shows that Seychelles' manufactured exports are heavily dependent on resource-based manufactures (specifically canned tuna and other processed marine products), which represent more than 90% of Seychelles' manufactured exports. The trends since 2001 suggest that little structural transformation has taken place over the 2001-2012 period, which is in line with the findings of previous sections.

Table 18: Change in Seychelles manufacturing exports by technology classification, 2001-2012<sup>64</sup>

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Resource-based exports	93.6%	96.9%	96.9%	93.6%	90.6%	92.8%	n.a.	95.6%	90.1%	79.7%	90.7%	90.9%
Low-technology exports	0.5%	0.0%	0.1%	0.3%	2.6%	0.5%	n.a.	0.6%	1.2%	0.7%	1.1%	1.0%
Medium-technology exports	1.3%	0.8%	0.7%	0.5%	1.4%	6.2%	n.a.	1.4%	5.5%	5.8%	5.4%	6.0%
High-technology exports	4.6%	2.3%	2.3%	5.6%	5.5%	0.6%	n.a.	2.3%	3.2%	13.9%	2.9%	2.1%

Source: International Trade Centre's TradeMap.

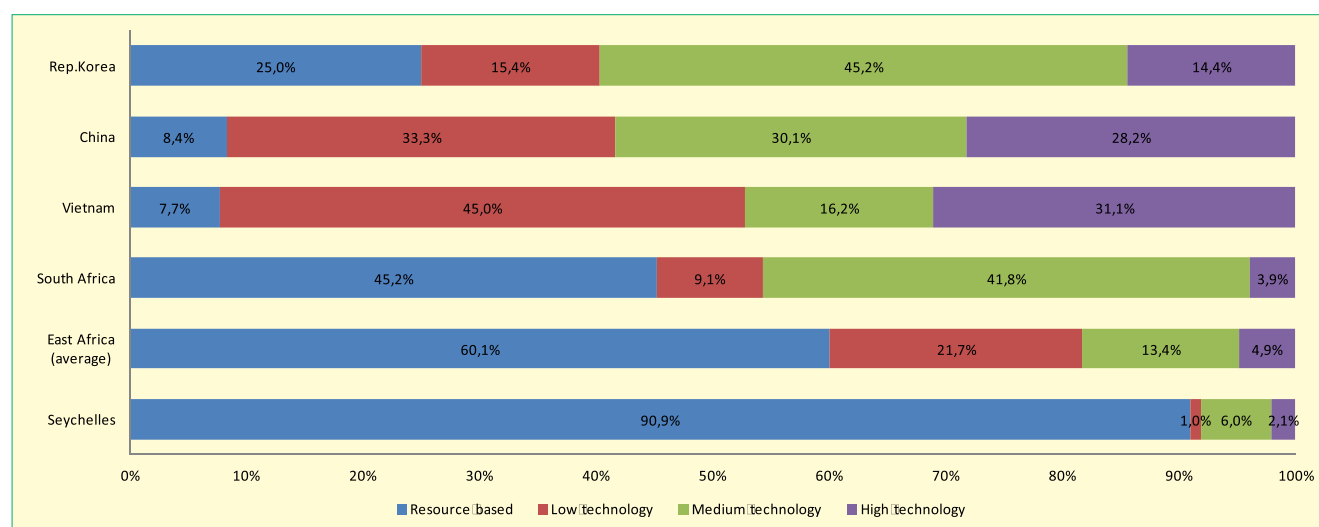
<sup>64</sup>The figures for this table were calculated following UNIDO's technological classification of manufactured exports according to SITC revision 3 (for the detailed classification of SITC sections per category, please see Annex 1 of UNIDO's Tanzania Industrial

Competitiveness report (UNIDO 2012: 104)). Please note that the definition of "manufactured export" according to this classification is narrower than the definition used elsewhere in the report.

Seychelles' high share of resource-based manufactures in total manufactured exports is well above the regional average, while in terms of its export structure the region is already characterised by a

strong dependence on resource-based manufactures compared to the benchmark countries (Graph 9).

**Graph 9: Structure of manufactured exports by technology classification for Seychelles and comparator countries, 2012<sup>65</sup>**



Source: International Trade Centre's TradeMap.

These figures were computed based on ITC TradeMap data, which as mentioned earlier includes re-exports. Using export data from the National Bureau of Statistics, the share of resource-based exports would be even higher and the balance would consist almost exclusively of medium-technology exports, corresponding to Chelle Medical's exports of orthopaedic appliances. The bulk of the low-technology and high-technology exports reported in and Graph 9 are indeed re-exports.

Seychelles' geographical position, topography and small population are clearly significant constraints to the structural transformation of the country. However, there still seems to be potential for the country to move into more technology-intensive manufacturing activities that would generate higher value added, even if such activities could only at a small-scale level.

In terms of spatial patterns, almost all manufacturing activities are concentrated on the main island of Mahé (where 90% of the population is also based), in particular on the eastern coast, in the area around the capital city Victoria. The government does take into account location issues in its policies, for example through the "One District One Project" programme mentioned in section 2.1.4, but policies in this regard are necessarily constrained by the scarcity of land available for manufacturing purposes, as mentioned earlier.

However, there seems to be potential for the development of

manufacturing activities on the Outer Islands which are managed by the Islands Development Company (IDC)<sup>66</sup>. Some of these islands have notably large coconut forests and according to IDC there is still untapped potential in the field of coconut processing: as mentioned earlier, coconut oil is currently being produced on two of these islands and there would be potential forward linkages to more technology-intensive activities such as the production of soaps or perfumes. Furthermore, according to IDC there is also potential in the processing of fish and fish products (at the moment, there is only some small-scale fish processing on Coëtivy and Farquhar but exclusively for the local market). One major advantage of the Outer Islands is that there is more space available than on the main islands. On the other hand, constraints include transportation costs between the Outer Islands and Mahé, and the difficulty in attracting workforce (as work on the Outer Islands is generally not well perceived by Seychellois).

## 2.3 SWOT analysis of the manufacturing sector in Seychelles

### 2.3.1 Key sub-sector 1: Processing and preserving of fish and fish products

As noted in the previous sections, this sub-sector is the largest manufacturing sector in Seychelles in economic terms and dominates in particular the country's exports, as processed fish and fish products account for more than 95% of total merchandise exports. In turn, the sub-sector is itself dominated by the canned tuna

<sup>65</sup>Idem.

<sup>66</sup>The IDC is a commercial parastatal created in 1980 that is responsible for the management, development and conservation of 14 groups of islands referred to as the Outer Islands. IDC's specific mission is to ensure that the Outer Islands actively contribute to the socio-economic development of Seychelles.

segment, which accounts for the bulk of the sub-sector's exports (and over 90% of total merchandise exports).

Indian Ocean Tuna (IOT) is the second largest tuna canning factory in the world and the largest single employer in Seychelles. IOT's growth has been beneficial to the whole sub-sector as it has helped to ensure that the port of Victoria is a hub of global importance in the tuna trade<sup>67</sup>. However, the canned tuna segment faces structural constraints that affect its competitiveness. Campling and Doherty (2007) pointed out inter alia the following aspects:

- Labour costs are significantly higher in Seychelles than in both Mauritius and Thailand: the study estimated that basic hourly wage rates for local workers in Seychelles' canned tuna segment was USD 1.90, compared to only USD 0.65 in Thailand and USD 0.90 in Mauritius. In addition, cash fringe benefits are higher in Seychelles than in Thailand (but similar to Mauritius). This affects the competitiveness of Seychelles' canned tuna segment, even though labour costs account for only around 6-8% of the total cost of a can of tuna shipped to the EU.
- Seychelles' canned tuna segment has to import almost all inputs while Thailand can source key inputs (sheet tinplate, labour, filling and packing materials) from the domestic economy, providing significant competitive price advantages to the finished product. The price advantage is in particular derived from sheet tinplate (the raw material for canning), because international prices for sheet tinplate have increased in recent years and can cost is the second most expensive input into canned tuna manufacturing at about 20% of the total.
- Sea freight costs for Seychelles and Mauritius are around 20% higher than for Thailand. This can be explained by: (i) Thailand's location at the centre of a dynamic region of economic growth (in contrast to the south west Indian Ocean), which makes it a key regional port for intra-regional trade and east-west trade; (ii) Thailand's large domestic industry and large population and the high volume of trade flows flowing in and out of its economy.
- In general, while IOT benefits from firm-level economies of scale because it has a large plant, it does not benefit from economy-wide economies of scale, contrary to tuna canneries in countries such as Thailand (which on top of the advantages mentioned above also benefits from a large domestic market). The inability to take advantage of economy-wide scale economies inhibits IOT achieving comparable efficiency gains available to Thai-based firms.

In this context, and in order to reduce production costs, IOT has sought to improve the efficiency of its processes by investing

significantly in equipment. The high labour costs are also offset by higher productivity measured in tonnes of tuna processed per person and per year, which is 75% higher than in countries such as Mauritius or Ghana. Likewise, although the cost of water is higher in Seychelles, water consumption is half that in other countries.

Regarding onshore fish-processing activities, the recent development of the Seychellois-owned semi-industrial fishing fleet represents an opportunity for further expansion of this segment. In addition, as mentioned earlier the Government aims to increase the percentage of catch processed on the islands and is actively promoting onshore value addition activities, through the provision of operating space, cold storage facilities and ice, warehouses, etc. Several initiatives are ongoing to set up new fish-processing facilities and attract local investment, such as the one at Ile du Port. Moreover, funding is available to support the development of the sub-sector through the Fisheries Development Fund.

Furthermore, the current two main players in onshore fish-processing have plans to expand in the coming years:

- Oceana Fisheries was recently purchased by a new company (a joint venture between a Seychellois and a Russian investor), and has plans to significantly expand in the coming years through acquiring new infrastructure, extending its processing facilities and diversifying into new value added fish products (for example sashimi grade tuna).
- Sea Harvest is also preparing a large expansion plan, which would involve inter alia acquiring new operating space (the site has been identified and the company is waiting for the approval of the government) and further development into frozen value-added products. Moreover, the company is exploring possible linkages with the tourism sector: in partnership with the Seychelles Tourism Board, it is currently looking into the feasibility of setting up a centre that would present to tourists fishing activities in Seychelles and the country's fisheries products<sup>68</sup>.

A significant constraint for the sub-sector is that most inputs apart from fish – such as packaging, labels, cardboard boxes, etc. – have to be imported (some companies have ventured in the past in the production of packages in Seychelles but did not stay in business). The reliance on imports affects the competitiveness of the sub-sector compared to other countries that can source these inputs from their domestic economy.

The operating costs, including the cost of utilities (electricity, water) are generally higher in Seychelles than in competitor countries. The cost of water affects in particular the sub-sector because this is an important factor in the context of fish processing activities, due to the

<sup>67</sup>In fact, it has been beneficial to the manufacturing sector as a whole because it generates container traffic, putting the port of Victoria on the map of trade routes. Without this traffic, the costs of the other activities in the Seychelles economy would increase considerably.

<sup>68</sup>This project is prepared with assistance from consultants who worked on setting up whisky houses in Scotland based on the same principle of linkages with the tourism industry.



use of freezers, ice plants, etc.

Like most economic activities in Seychelles, the fish-processing sub-sector is also facing a significant constraint in terms of availability of labour, particularly skilled labour<sup>69</sup>: in this context, the canned tuna segment for example had to import labour force. If the sub-sector is to expand significantly in the coming years, this will imply even stronger needs in terms of labour. In light of these future needs, the development of specific vocational training for the sub-sector is all the more critical.

There is currently an untapped potential in aquaculture, and the Aquaculture Master Plan in preparation is expected to promote opportunities in this field. In this context, even though the prawn plant on Coëtivy closed down in 2008 because it was too costly to operate, according to IDC transportation costs between the Outer Islands and Mahé have decreased in the meantime and there would be potential in starting prawn production again on this island.

As noted above, there has been little export market diversification and the sub-sector is currently very dependent on the EU market – however, the Government hopes to increase the penetration of Seychelles fishery products in the markets of countries such as China, India and emerging markets in the region.

Finally, two specific threats that affect Seychelles' fisheries sector as a whole but also have an impact on the processed fish or fish products sub-sector are worth mentioning:

- Piracy in the Indian Ocean: In the last few years, piracy stemming from Somalia has significantly affected fishing activities in the region, including in Seychelles' EEZ<sup>70</sup>. The piracy problem has led to a reduction in the number of purse seiners operating from the Seychelles, a drop in catch levels and ultimately a reduction of the annual amount of processed tuna, from 75,018 tonnes between 2006 and 2008 to 66,919 tonnes between 2009 and 2011<sup>71</sup>. While piracy seems to have declined since 2011, it remains a serious issue and a threat for the development of the sub-sector.
- Level of fish stocks: The amount of tuna in the Indian Ocean is large, but like all fish resources in the world it is not infinite and declining fish stocks could be a threat to Seychelles' fisheries sector. In order to decrease the overall pressure on the main targeted stocks in the Indian Ocean (in particular yellowfin tuna and bigeye tuna) and avoid overexploitation, the Indian Ocean Tuna Commission (IOTC) has recently adopted conservation measures. According to the IOTC's latest report<sup>72</sup>, all major tuna stocks are now being exploited in a sustainable manner (i.e. "fully exploited" but not "overfished")<sup>73</sup>.

<sup>69</sup>In this context, it can be noted that there is a widespread public perception that jobs in the fisheries sector have a low social status, and this perception has a serious impact on the development of the fisheries sector. The comparison of incomes in the tourism sector with those in the fisheries sector plays a fundamental role in this perception.

<sup>70</sup>Over time the Somali pirates have extended their area of operations, moving ever further away from the Somali coastline, by using mother ships.

<sup>71</sup>European Bureau for Conservation and Development (2012) "The Impacts of Piracy on Fisheries in the Indian Ocean", Workshop Report.

<sup>72</sup>IOTC (2013) "Report of the Seventeenth Session of the Indian Ocean Tuna Commission, 6-10 May 2013".

<sup>73</sup>Except possibly for albacore where further studies are required for its confirmation.

<p><b>Strengths</b></p> <ul style="list-style-type: none"> <li>▪ Seychelles has a large Exclusive Economic Zone (EEZ) of almost 1.4 million square kilometres, which is in particular a major tuna fishing ground;</li> <li>▪ The port of Victoria is a hub of global importance in the tuna trade: it is the main tuna landing and trans-shipment point in the region;</li> <li>▪ The sub-sector plays an important role in the socioeconomic development of the Seychelles;</li> <li>▪ Availability of competent support institutions, in Seychelles Fishing Authority and SBS' Fish Inspection and Quality Control Unit;</li> <li>▪ Funding available to support the development of the sub-sector through the Fisheries Development Fund, managed by DBS on behalf SFA.</li> </ul>	<p><b>Weaknesses</b></p> <ul style="list-style-type: none"> <li>▪ High operating costs (labour costs, cost of utilities, etc.);</li> <li>▪ Diseconomies of scale: due to the small size of Seychelles' economy, most inputs – such as sheet tinplate for canned tuna or in general packages – have to be imported;</li> <li>▪ Limited availability of operating space;</li> <li>▪ Limited availability of labour, in particular skilled labour (as a result, the sub-sector has to import labour);</li> <li>▪ Limited size of the domestic market;</li> <li>▪ Limited export market diversification and dependence on the EU market, which implies vulnerability to external shocks;</li> <li>▪ Piracy operations in the Seychelles' EEZ.</li> </ul>
<p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>▪ The development of the Seychellois-owned semi-industrial fishing fleet creates opportunities for a further expansion of onshore fish-processing activities;</li> <li>▪ The government is actively promoting value addition in the sub-sector and several plans are ongoing to create new fish-processing facilities (notably at Ile du Port);</li> <li>▪ There is untapped potential in aquaculture (mariculture): the Aquaculture Master Plan is to be finalised soon and it is expected that new opportunities will be created in that field.</li> </ul>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>▪ If there is a fast development of the sub-sector, this will imply strong needs in labour, which is currently lacking in Seychelles;</li> <li>▪ Although it has declined since 2011, piracy in Seychelles' EEZ is expected to remain an issue in the coming years;</li> <li>▪ Possible decline of fish stocks due to overfishing;</li> <li>▪ The erosion of preferential access for Seychelles canned tuna (or other processed fish or fish products) to the EU market could have serious and adverse consequences for the sub-sector and the Seychelles economy as a whole.</li> </ul>

## 2.3.2 Key sub-sector 2: Beverages

The beverages sub-sector is the second most important manufacturing sub-sector in terms of contribution to GDP. As noted in section 1.2.2.1, the sub-sector involves a relatively high number of players for a small country such as Seychelles and produces a wide range of products (soft drinks, beer, spirits and mineral water).

The Central Bank of Seychelles' Annual Report 2012 noted that the output of the sub-sector grew by 12% in 2012<sup>74</sup> but suggested a declining trend in terms of profits. Thus, the Seychelles Breweries' Annual Report 2012 mentioned a decline of 17% in trading profit, and most manufacturers in the sub-sector shared the sentiment that the overall performance was below initial expectations for the year,

despite remaining profitable.

In general, the recent liberalisation of the market has affected the sub-sector, as Seychelles' beverages manufacturers have been facing increased competition from imported beverage products. In this context, the sub-sector is currently undergoing a number of changes. The year 2012 witnessed for example the closure of Agro Industries, a local producer of juice and dairy products. A small company such as Waterloo Factory also suffered from the opening of the economy: five years ago, its factory used to bottle every day but this is not the case anymore; also, the number of employees was 13 in 2007, now it is only 5. The company might in fact close in the near future because the owner wishes to retire<sup>75</sup>.

<sup>74</sup>Specifically, the total output of beer, spirits and mineral water increased by 1.6%, 6.6% and 16% respectively, while the total output of stouts and soft drinks declined by 19% and 0.7% respectively.

<sup>75</sup>This might also be the case of the company La Buse, which seems to have been more resilient in the context of the liberalisation of the market but whose current owner plans to retire and is selling the company. However, no investor has been identified yet.

The largest company in the sub-sector, Seychelles Breweries, has also been affected by the number of imported beers coming into the country: these can cost less than the company's own products and often have a higher alcohol content, making them very popular on the domestic market. To face this more competitive environment, the company has diversified into new products (such as the production of Smirnoff vodka since 2011) and is currently doing extensive work on quality control and production efficiency (in particular in terms of water usage and energy savings). It is also exploring further the possible linkages with the tourism industry.

Notwithstanding the competition from imported products, some segments also seem relatively congested such as the bottled mineral water segment, which currently includes about ten different producers, with several other projects in preparation.

The difficulties experienced in competing against imported beverages on the domestic market reveal the overall lack of competitiveness of Seychellois beverage producers, which is further highlighted by the sub-sector's very limited exports. Several companies have plans to start exporting in the future, but while export markets do of course represent additional opportunities (compared to the limited domestic market size) there is also greater competition on export markets so competitiveness would have to be improved.

The beverages sub-sector faces similar constraints than other economic sectors in Seychelles, such as high operating costs, limited domestic market size and dependence on imports for many inputs. The most significant constraint is indeed probably the fact that many inputs (such as bottles, packages, sugar, flavours, preservatives, etc.) have to be imported, which makes it difficult to achieve competitive end prices.

One success story in the sub-sector is Takamaka Bay, a young Seychellois-owned company specialised in rum products that has managed to penetrate export markets. The company was founded in 2002 and started exporting in 2005: it is currently exporting to the EU, the Middle East (through the Dubai Duty Free Zone) as well as China (since 2013), and has plans to export to the United States (although it would have to change the size of its bottles to penetrate this market). In the last few years, Takamaka Bay has started to diversify its products from the initial dark rum to white rum, coco rum and vodka. In addition, Takamaka Bay is now putting greater effort into product design and packaging: until now the packaging and label design has been carried out in-house but the company is currently working with a group of designers based in the UK to adjust and improve the brand to make it more appealing.

Takamaka Bay is still a small scale-producer and its exports only account for a limited share of the country's total merchandise exports. However, rum is the only new manufactured product (other than marine products) to have emerged in Seychelles' export structure in the last ten years. Moreover, the company's growing exports demonstrate that it is possible for Seychellois beverage producers to tap international markets and thus overcome the constraint of the limited domestic market size.

The alcoholic beverages segment is the most dynamic and resilient segment in the sub-sector, but due to public health reasons the Government does not wish to support directly or provide incentives to this segment – as noted in section 2.1.8, projects related to the production of alcoholic beverages are for example not eligible under DBS' loan financing scheme.

<p><b>Strengths</b></p> <ul style="list-style-type: none"> <li>■ The sub-sector is already important in economic terms and its contribution to GDP has been growing over the last few years;</li> <li>■ The sub-sector is relatively diversified, producing a wide range of products (soft drinks, beer, spirits and mineral water);</li> <li>■ Exports of rum products have grown over the last few years (excluding marine products, it is the only new manufactured export in the last 10 years).</li> </ul>	<p><b>Weaknesses</b></p> <ul style="list-style-type: none"> <li>■ High operating costs (cost of utilities, in particular electricity; labour costs)</li> <li>■ Dependence on imports for most inputs;</li> <li>■ Overall limited competitiveness, highlighted by the difficulty of competing against imported products on the domestic market;</li> <li>■ Limited attention to product development;</li> <li>■ Some segments are already relatively congested (for example, the bottled mineral water segment).</li> </ul>
<p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>■ The growth of rum exports demonstrates the possibility for the sub-sector to tap international markets and thus overcome the constraint of the limited domestic market size.</li> <li>■ Potential linkages with the tourism industry exist.</li> </ul>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>■ The alcoholic beverages segment is the most dynamic, but the Government does not wish to support it directly for public health reasons.</li> </ul>

### 2.3.3 Key sub-sector 3: Essential oils and coconut oil

The essentials oils and coconut oil sub-sector is very small compared to the other two key sub-sectors. Nonetheless, the sub-sector draws on resources available locally and has potential forward linkages to higher value-added products such as soaps, perfumes or pharmaceutical products. Furthermore, there is an opportunity for both segments (essential oils and coconut oil) to capitalise on the Seychelles' "brand", i.e. the country's positive image in terms of nature and pristine environment.

Seychelles has large forests of coconut trees, in particular on the Outer Islands, and the coconut industry used to be the main pillar of the economy before the economy switched to tourism in the 1970s. Since then, the coconut industry declined dramatically, many coconut plantations were abandoned and the land diverted to other activities. Coconut oil is however still being produced on the Outer Islands: Farquhar for example retained its coconut oil production, and production of coconut oil started again on Coëtivy at the beginning of this year – but no significant exports have been recorded in the last ten years although world demand for coconut oil has significantly increased over the period<sup>76</sup>.

There is in particular an untapped potential in the production of value added-products based on coconut oil, as no further processing of the coconut oil is currently ongoing. As mentioned in section 1.2.2.1, Seychelles used to produce soap made from coconut oil on the main island Mahé until a few years ago, but this is not the case anymore. According to IDC, there is still potential to produce soap based on the

coconut oil produced on Coëtivy and Farquhar, especially for small-scale production. Other value-added products that could be manufactured in Seychelles based on coconut oil include lotions, creams, detergents, cosmetic products and pharmaceutical products.

Regarding essential oils, two Seychellois small-scale producers (Globarom and Island Scent) are currently involved in the extraction/distillation and distribution of pure essential oils using cinnamon bark, cinnamon leaf, citronella, lemon grass, eucalyptus, ylang-ylang, etc. which are all available in Seychelles. Both companies have managed to export small quantities (mainly cinnamon oil) but export markets have proved difficult to sustain. The producers in this segment have been facing several constraints, such as, inter alia: limited access to finance, limited access to technology (equipment), dependence on imports (the bottles have to be imported for example) and scarcity of foreign exchange.

Essential oils are used in the cosmetic (perfumes, fragrance, skin and hair care), aromatherapy, gastronomy, pharmaceutical and chemical industries. There is a growing popularity of essential oils worldwide: world demand for essential oils – in particular organic essential oils – has increased significantly in recent years<sup>77</sup>, triggered by consumers who consider natural products as safe and healthy. In this context, the prices of organic essential oils are usually 20% higher than non-organic ones. As cinnamon grows wild in Seychelles, its by-products could be characterised as organic: however, to further add value to their organic products Seychelles producer still need to be organically certified, for example by EcoCert<sup>78</sup>.

<sup>76</sup>Total world imports of coconut oil have grown from USD 0.79 billion in 2001 to USD 2.88 billion in 2012 (ITC TradeMap).

<sup>77</sup>Total world imports of essential oils have grown from USD 1.49 billion in 2001 to USD 3.60 billion in 2012 (ITC TradeMap).

<sup>78</sup>The company Globarom is already organically certified and was also Fair Trade certified.



<p><b>Strengths</b></p> <ul style="list-style-type: none"> <li>■ Seychelles has large forests of coconut trees, in particular on the Outer Islands, and plants such as cinnamon, citronella, lemon grass and eucalyptus (used for the production of essential oils) are all available in Seychelles;</li> <li>■ Longstanding experience in coconut oil production;</li> <li>■ Producers of pure essential oils have managed to export small quantities.</li> </ul>	<p><b>Weaknesses</b></p> <ul style="list-style-type: none"> <li>■ There is little value addition or further processing of both coconut oil and essential oils at the moment;</li> <li>■ Coconut oil production has declined significantly and is just being revived;</li> <li>■ The larger coconut plantations are on the Outer Islands and thus transportation costs and the difficulty in attracting workforce are factors limiting growth;</li> <li>■ Only small quantities of essential oils have been exported so far and export markets have proved difficult to sustain;</li> <li>■ Limited access to finance and technology (equipment) is a constraint to the growth of the essential oils segment.</li> </ul>
<p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>■ Growing world demand for both coconut oil and essential oils;</li> <li>■ There is potential to capitalise on Seychelles' "brand", i.e. the country's positive image in terms of nature and pristine environment.</li> <li>■ The sub-sector has potential forward linkages to higher value added products such as soaps and lotions, cosmetic products or pharmaceutical products;</li> <li>■ If more value-added products are developed, linkages with Seychelles' tourism industry could also be explored.</li> </ul>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>■ Although the sub-sector has potential, there is currently no clear strategy or vision on how to develop further the sub-sector or achieve more value addition in the sub-sector.</li> </ul>

Like coconut oil, there is untapped potential in further processing essential oils into value-added products. The small company Kreolfleurage Parfums, which manufactures perfumes on the basis of essential oils from Seychelles (but also from other parts of the world), is one of the few perfume manufacturers in the Indian Ocean.

While potential thus exists to develop small industries by valorising traditional plantation crops, one constraint is that agricultural activities are currently at an extremely low ebb in Seychelles. In particular, both coconut and cinnamon can be considered as dying crops as they are not much cultivated and are in fact perceived as invasive species. Also, the larger coconut plantations are on the Outer Islands and, as noted earlier, transportation costs and the difficulty in attracting workforce remain limiting factors. Besides, there is difficulty in convincing the island owners of the benefits of retaining the coconut trees and having small industries around the copra. Finally, access to finance is also an issue for the agricultural sector, which – like the manufacturing sector – does not currently benefit from competitively priced loans.

### 2.3.4 SWOT analysis of manufacturing sector in Seychelles

The high value of the country's MVA per capita suggests that the manufacturing sector in Seychelles is much more developed than in other study countries, but trends over the last ten years suggest that it has declined. Seychelles' manufacturing sector is vastly dominated by resource-based manufactures, in particular processed fish or fish products. The lack of diversification of Seychelles' manufactured exports – dominated by canned tuna exports to the EU – makes the sector vulnerable to external shocks.

The Seychelles face the limitations and constraints typical of Small Island States that have few inhabitants, are remote from the mainland and have limited natural resources. These include, inter alia: diseconomies of scale and higher costs of doing business, limited availability of labour, limited domestic market size and dependence on trade (high reliance on imports and dependence on export revenues).

All these constraints are relevant in the context of the manufacturing sector and they limit its development and affect its competitiveness.

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Indeed, the expansion of Seychelles' manufacturing sector is generally hindered by the limited availability of labour and the scarcity of land available (as well as by the imperative to preserve the pristine environment on which the two main pillars of the economy heavily depend). Moreover, Seychelles manufactured products are generally

not competitive because most inputs have to be imported, production costs are high, and quality-wise there needs to be improvements to increase chances of penetrating export markets.

The table below summarises the findings of the previous sections.

<p><b>Strengths</b></p> <ul style="list-style-type: none"> <li>Existing industrial base: the high value of the country's MVA per capita (which used to be the highest in Africa) suggests a much higher level of industrialization than the regional average;</li> <li>Higher labour productivity than the regional average according to the MVA per employment indicator;</li> <li>Educated workforce, as revealed by the country's high literacy rate and high secondary education enrolment rate;</li> <li>For a small economy such as Seychelles, the manufacturing sector is relatively diversified;</li> <li>Manufactured products represent already the bulk of the country's merchandise exports;</li> <li>Overall, the transport infrastructure is relatively well-performing;</li> <li>Port of Victoria is a hub of global importance in the tuna trade: the container traffic generated puts Victoria on the map of trade routes;</li> <li>The country performs relatively well in terms of trading across borders and customs clearance;</li> <li>Reliable communication infrastructure;</li> <li>Availability of a development bank to finance manufacturing projects;</li> <li>Availability of a Fisheries Development Fund to support the development of the fish-processing sub-sector.</li> </ul>	<p><b>Weaknesses</b></p> <ul style="list-style-type: none"> <li>Absence of an updated strategic document to guide government's policies as regards the manufacturing sector;</li> <li>Limited access to land /operating space;</li> <li>High operating costs (cost of utilities, in particular electricity; cost of labour);</li> <li>Most inputs/raw material have to be imported, which inhibits manufacturers to achieve competitive prices;</li> <li>Limited access to finance for small-scale manufacturers;</li> <li>Limited availability of labour, in particular technically skilled labour;</li> <li>The provision of vocational training is not sufficient relative to the needs of the sector;</li> <li>Scarcity of local professional/business services;</li> <li>Limited access to technology;</li> <li>Limited domestic market size;</li> <li>Concentration on resource-based manufactures, in particular processed marine products;</li> <li>Concentration of exports both in terms of products (more than 90% of exports are canned tuna exports) and markets (more than 90% of manufactured exports are to the EU), which increases vulnerability;</li> <li>Overall lack of focus on innovation, product development and branding;</li> <li>Absence of sector associations to represent the manufacturing sector or its sub-sectors.</li> </ul>
<p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>A revised Industrial Policy is in preparation and is expected to better define and articulate the government's policy as regards the manufacturing sector;</li> <li>The recently introduced SME scheme is expected to improve the availability of finance for manufacturing activities;</li> <li>Recent land reclamation works are expected to provide more space for manufacturing activities;</li> <li>The development of renewable energies is expected to bring down the cost of electricity;</li> </ul>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>Most of the constraints to the development of Seychelles' manufacturing sector are direct consequences of the country's geographical position, topography and small population, i.e. they are mostly structural and cannot be fully lifted – These factors will in any case limit the options for structural transformation of the economy;</li> <li>Given the lack of diversification of Seychelles' manufactured exports in terms of markets, the erosion of preferential access to the EU market could have serious adverse consequences for</li> </ul>



- The recent creation of the University of Seychelles and efforts at developing vocational training could contribute to reducing the shortage of technical and specialised skills;
  - There is potential in certain sub-sectors, to move into higher value-added products (forward linkages);
  - There is potential for certain sub-sectors (notably resource-based manufactures) to capitalise more on Seychelles' "brand", i.e. the country's positive image in terms of nature and pristine environment.
  - There is untapped potential on the Outer Islands, where more space is available to develop manufacturing activities.
- the sector and the Seychelles economy as a whole;
- Piracy in Seychelles' EEZ is a threat not only to the fishing sector but to the manufacturing sector as a whole, as it affects shipping lines for exports;
  - Seychelles remains vulnerable to several natural hazards, including floods, rising sea levels, landslides, and tsunamis, all of which pose serious risks to the country.





## 3. POLICY OPTIONS: HARNESSING OPPORTUNITIES AND EASING THE CONSTRAINTS TO MANUFACTURING IN SEYCHELLES

### 1.1 Long-term vision

As has been shown above, the Seychelles' economy undergone a significant structural change over the last two decades, with a shift towards the service sector based on tourism and a shift in industrial activity towards construction to build hotels and resort facilities. As one consequence, Seychelles' MVA per capita, which used to be the highest in Africa, has significantly declined in the last ten years and is now below the MVA per capita of countries such as Mauritius or South Africa. Moreover, the manufacturing sector has remained almost entirely resource-based with only limited shares of output consisting of medium- or high-technology products. At the same time, Seychelles has achieved high living standards based on its current economic structure, which is a major achievement.

Nevertheless, like other small states, Seychelles now potentially faces a middle income trap, with limited opportunities to attain high-income status, held back in part by its geographical position, topography and small population, which make a major transformation of the Seychelles' economy difficult.

These constraints are even more crucial in Seychelles than in other Small Island States. For example, Mauritius has less of a problem in terms of availability of labour or availability of space for manufacturing purposes. Mauritius is indeed one of the few small island countries that has succeeded in establishing a viable manufacturing base: the dominant manufacturing activities are textiles and clothing produced in an export-processing zone established by the government in the early 1970s (using Taiwan as a model) and the country has experienced a rapid adaptation from low value-added textiles to high-value products. It would be, however, much more difficult for Seychelles to go into labour-intensive activities such as textile and clothing.

In spite of these constraints, there is potential for the country to further develop its (small-scale) manufacturing base and in particular:

- Add more value to its resource-based manufactures through further processing of the resource, and thus move up the value chain, while at the same time capitalising more on Seychelles' "brand", i.e. the country's positive image in terms of nature and pristine environment for consumer products based, for example, on essential oils;
- Move into the production of more low-technology, medium-technology or high-technology products (as opposed to resource-based manufactures, which currently dominate the

country's manufacturing sector), including by emulating the supply chain participation model of Chelle Medical, which assembles orthopaedic appliances from the parts from Singapore for markets in Europe;

- In general, target and exploit niche markets (when niche opportunities exist, low business costs become less critical for attracting investment).

Any vision for the Seychelles' manufacturing sector needs to be based on the preservation of the natural environment which constitutes the basis for the country's two economic pillars, fishery (and downstream industries), and tourism.

Keeping in mind the above factors, a vision for Seychelles' manufacturing sector could be formulated as follows:

The fish-processing industry remains both a leader worldwide and a backbone of the Seychelles' economy, while more value is added to other resource-based manufactures, in particular essential oils, and the country expands its range of production of medium- to high-technology products (on a small-scale level) through value-chain participation, based on good air connections between Asia, Europe and emerging Africa. All manufacturing activities are based on innovative, competitive and environmentally friendly production processes.

### 3.2 Structural transformation

Based on the vision formulated above, a major structural transformation of Seychelles' manufacturing sector in terms of its sectoral composition is not envisaged. However, there is scope to revitalise the manufacturing sector which had shrunk reflecting the shift in comparative advantage towards services and the policy of maintaining an over-valued exchange rate. What is needed, is a structural transformation of the way the manufacturing sub-sectors are organised and operate. For industrial policy purposes, it is important to situate manufacturing in the context of the overall economy with explicit focus on the linkages to agriculture, resource base and services. Manufacturing has upstream and downstream linkages to all other broad sectors and competes with the other sectors for labour and capital inputs. It follows that a thriving manufacturing sectors requires a credible forward-looking aggregate economic framework. Further, macroeconomic conditions need to be maintained that permit local resource-based manufactures and global value-chain value addition to stay competitive. And logistics connections need to be maintained at high levels to make the Seychelles attractive as a supply chain partner.

#### 3.2.1 Overall economic framework

Seychelles' economy has experienced major changes in the past few years. Before 2009, recurrent expansionary fiscal and monetary policies, coupled with mismatched trade and exchange rate policies produced serious macroeconomic imbalances. However, following the implementation of a comprehensive economic and financial

reform programme, the economy recorded a significant turnaround in 2010 and has since recovered.

Macroeconomic stabilization has been successful and the authorities have made significant strides toward improving financial discipline at the central government level: the authorities are on track to achieve their objective of bringing public debt down to 50% of GDP by 2018. The outlook is benign, but the economy will remain highly vulnerable to global developments and domestic shocks.

Prospects are favourable but barring a major natural resource discovery (e.g. petroleum discoveries) growth will likely remain moderate and stable, supported by traditional sectors like tourism and fisheries as well as the telecommunications/IT sector. Over the medium term, growth is projected to average 3.5%.

Also, the country has already achieved most of its Millennium Development Goals (especially for education, health, poverty eradication and the environment), comparing favourably to developed countries.

The Government is in the process of preparing a medium-term National Development Strategy (NDS) 2013-2017 to replace the "Seychelles Strategy 2017", which is no longer relevant since the severe national economic crisis of 2007-2008 and the subsequent comprehensive reform programme that was implemented.

Overall, the economic framework for further developing the manufacturing sector is sound. Vulnerabilities remain but can be reduced by a manufacturing and trade policy that pays careful attention to a diversification of markets. The significance of the cessation of non-stop air connections to Europe by Air Seychelles should be carefully evaluated for potential knock-on effects on logistics costs to service European markets (connections now run through Abu Dhabi and Addis Ababa).

### 3.2.2 Population growth and workforce

Population growth has been moderate in recent years, from 81,131 in 2000 to 87,785 in 2012<sup>79</sup>. Over the same period, the total employed population has grown at a higher rate, from 32,131 in 2000 to 51,426 in 2012<sup>80</sup>. However, this growth has been mainly fuelled by the increasing share of expatriates in the total employed population (from 8% in 2000 to more than 25% in 2012): the domestic employed population has in fact only grown moderately over the period. Projections suggest that the growth of the population and the domestic labour force will remain moderate in the coming years.

The lack of adequately skilled labour constitutes a major constraint for the further development of the manufacturing sector and needs to be addressed by policy measures as recommended below.

### 3.2.3 Linkages to agriculture, resource base and services

Given its geographical and size constraints, Seychelles' manufacturing sector is likely to continue to depend heavily on its resource base, i.e. primarily fish. Sustainable fishing therefore constitutes a crucial condition for Seychelles' economic survival and needs to be guaranteed by continuously monitoring species and adjusting quotas accordingly, based on scientific observation and analysis and without influence of short-term economic interests. A careful (re-)introduction of aquaculture could be used to broaden the resource base for fish processing and diversify the product portfolio, thereby reducing the dependency from natural cash of tuna.

Coconuts and cinnamon are also cultivated but on a smaller scale – especially compared to the 1960s and 1970s when the coconut industry was the main pillar of the economy, and copra and cinnamon were the main exports together with vanilla. Manufacturing based on these agricultural resources could be expanded and linked with the tourism sector more closely than they currently are; the experience of some firms in the essential oils and perfume sector could be replicated, and sales to tourists be expanded, with marketing to tourist-source countries for continued sales.

Furthermore, the identification of other niche markets for resource-based manufacturing could be promoted through research – e.g. undertaken by the University of the Seychelles – into non-traditional agriculture.

However, while agricultural activities can potentially spur a number of important downstream manufacturing activities (in particular through valorising traditional plantation crops as mentioned above), it must be noted that the sector is currently at an extremely low ebb in Seychelles as a result of a lack of competitiveness. For the agriculture sector to contribute to the development of small industries, it would also need to benefit from target support, in particular in terms of provision of affordable financing with a view to facilitating investment in technology.

Regarding land use, a delicate balance has to be found between tourism activities and other activities such as manufacturing. Indeed, the scarcity of land means that an expansion of large-scale manufacturing in Seychelles' economy should not be a policy objective. Rather, the manufacturing sector should continue to be considered as one important ingredient in a diversified – as diversified as possible, given Seychelles' natural constraints – economy. Value-chain participation offers the best prospects for such diversification on a scale commensurate with the Seychelles' size.

### 3.3 Harnessing technology, innovation, productivity, and linkages

The achievability of the broad targets – in particular of total factor

<sup>79</sup>Source: World Bank's World Development Indicators.

<sup>80</sup>Seychelles' National Bureau of Statistics.



productivity growth – is contingent on the ability of the country's manufacturing sector to learn. This implies both adoption of existing technology and adaptation of existing technology to suit local condition. Seychelles has already made significant progress in this regard, especially in the fish processing sector which, as has been described above, is more productive than competitors – a necessity given the higher costs for inputs and labour. However, more needs to be done in order to maintain this higher efficiency in relation to competition. Furthermore, more needs to be done in other sectors.

To do this, linkages between the university and manufacturers (and agricultural producers) would need to be developed. These are so far very weak if existing at all. University-linked clusters/technology centres (particularly in non-traditional agriculture; specific sectors would have to be targeted) could be established with a view to achieving innovation targets. There is also a lack of public research facilities. The improvement in telecommunications facilities is an important element of the backbone for expanded research.

In this context, a crucial aspect will be to increase tertiary education enrolment rates and capitalise on the recent creation of the University of Seychelles: this aspect needs to be reflected in Seychelles' Medium-Term Strategy for Education 2013-2017, which is currently being finalised. The development of a knowledge-based industry cluster linked to the university and targeting innovation incubators for niche global markets would facilitate the development of curricula well-suited to the knowledge requirements of industry (and could also serve as technology centre to help manufacturers continuously adapt, innovate and improve their technology). As noted by the WEF's Global Competitiveness Report 2013/2014, Seychelles is now approaching the innovation-driven stage of development and it needs to lay the fundamentals for higher-value added growth.

To support enrolment growth at the tertiary stage, as noted by the Global Competitiveness Report 2013/2014, efforts could also be targeted at improving math and science education at the secondary stage (results of exams for the Cambridge International General Certificate of Secondary Education – IGCSE – are generally particularly weak in science).

Moreover, the availability of technical training needs to be improved, as it is currently not sufficient to address the needs of the manufacturing sector. If manufacturing is going to expand in the coming years, the availability of relevant vocational training will be all the more crucial.

### 3.4 Improving the Business Enabling Environment

#### 3.4.1 Basic backbone infrastructure services provision

Smallness and fragmentation typically raise the costs of public services and infrastructure in Small Island States: a road, an energy network, or a government ministry that serves 90,000 people is likely to have a higher cost per user than one serving 10 million people. High fixed costs have to be spread across a smaller number of people and across a larger number of locations. This is a natural disadvantage which the Government so far has handled reasonably well, although the cost of electricity in particular remains a concern for manufacturing firms.

In order to reinforce infrastructure policies, the Government should pursue its efforts to diversify the country's energy mix and in particular develop renewable energies, as these are not only better for the environment (which is crucial for Seychelles' economy, in particular for the tourism industry) but also could bring down the cost of energy. This policy should be continued regardless of the fact whether oil deposits are found in Seychelles' EEZ<sup>81</sup>. Regarding utility tariffs, the current stepped tariff system based on increasing unit/marginal rates could be replaced by flat unit rates to avoid penalising successful producers.

Both the telecommunications and transport infrastructures in Seychelles are relatively efficient and are continuously being improved, e.g. by the installation of the fibre optic cable, upgrading of the port, etc. They therefore do not constitute binding constraints for the manufacturing sector.

#### 3.4.2 Services sector

Difficulties in access to finance are a typical problem encountered by manufacturing companies around the globe (especially since the 2008 financial crisis).

Among small-island economies, Seychelles' real lending interest rate is comparable to peers, although the availability of credit for the private sector – measured as bank lending to the private sector in terms of GDP – is somewhat low. In response, the most recent IMF Article IV report suggests that:

"Incentives and regulations should be geared toward fostering bank competition. There is also scope to continue to improve business conditions such as creditors' legal rights and to move bank supervision toward a forward-looking risk-based system. Taking steps to eliminate excess liquidity will lower the costs of financial intermediation, while a strengthened monetary framework that delivers on low and stable inflation is paramount to induce financial deepening and to promote access to credit."

<sup>81</sup>In any case, production may take another few years to come on stream – six years according to the African Economic Outlook 2013.

In addition, the establishment of a specific fund for the manufacturing sector, following the example of the already existing Fisheries Development Fund and Agricultural Development Fund could be envisaged, or resources within the existing funds be earmarked for downstream manufacturing industries.

Efforts should also be targeted at promoting the development of local professional services (e.g. lawyers, accountants, auditors, export specialists, etc.) to support the manufacturing sector. These supporting professional services are already lacking in Seychelles and the further development of the manufacturing sector will create stronger needs in this regard.

### 3.4.3 Public sector

The legal and regulatory environment does not constitute a binding constraint for the manufacturing sector in Seychelles. In response to this, no fundamental overhaul is required, and needed improvements are rather incremental. For example, the Companies Act is already being modernised and a new insolvency law is in preparation (the modernised insolvency law will replace the fragmented and outdated framework and is expected to facilitate business rescue and bankruptcy).

Furthermore, although it is essential to improve procedures for business registration, significant strides have already made in this area in the last few years, notably by setting up a one-stop shop at the Office of Registrar General in August 2012. The online version which is foreseen later this year should further improve the delays in starting a business.

## 3.5 Scope for benefits from regional integration

As a Small Island State, the Seychelles needs to offset its geographic constraints through integration with larger economies. Indeed, Seychelles is faced with significant diseconomies of scale but the regional market capacity could precisely support the exploitation of economies of scale.

Seychelles is a member of COMESA, like five of the six other study countries: Burundi, Ethiopia, Kenya, Rwanda, and Uganda<sup>82</sup>. It joined the COMESA Free Trade Area in 2009. It also is a member of SADC.

Nevertheless, Seychelles' trade with COMESA or SADC members is currently very limited: in 2011, COMESA countries only accounted for 5.1% of Seychelles' imports and 0.7% of its exports, while SADC countries only accounted for 11.3% of Seychelles' imports and 0.3% of its exports<sup>83</sup>.

This is only partly a result of Seychelles' geographical isolation (about 1,900 km from mainland Africa). In addition, with regard to the low share in imports, African trading partners often fail to supply inputs needed by Seychelles at competitive price-quality ratios. With regard to Seychelles' exports, consumer demand in Africa for Seychelles' main export, canned tuna, is low. Low levels of trade, in turn, lead to higher transport costs.

Due to these factors, the scope for enhanced regional integration and expanded regional trade is low, in particular regarding the fish processing industry. However, some measures could be taken, including joint product development and production in essential oils and downstream production (fostered by university-industry linkages, as described above) including outward investment from the Seychelles into Eastern Africa based on the knowledge assets in developing and marketing essential oil-based products.

In order to reduce the dependence on individual export markets (i.e. the EU), measures to diversify export destinations, such as trade missions and participation in fairs, should also be supported, with a particular view of increasing exports to China, India and Africa.

## 3.6 Lessons of experience

In going forward, finally, one has to revisit experience in order to learn from past mistakes and successes. In this regard, summarises the positive and negative lessons of Seychelles' manufacturing sector.

<sup>82</sup>Tanzania left COMESA in 2000 but is a member of SADC, like Seychelles.

<sup>83</sup>Seychelles' National Bureau of Statistics: Statistical Yearbook 2011.



**Table 19: Seychelles' lessons of experience**

What has worked:	What has not worked:
<ul style="list-style-type: none"> <li>▪ The country has successfully developed a large canned tuna industry, which has managed to alleviate constraints inherent to Seychelles through, inter alia, higher productivity and reduced water consumption;</li> <li>▪ Other onshore fish-processing activities have also developed – although there is scope for improvement;</li> <li>▪ The country managed to attract investment for a manufacturing firm that produces and exports medium-technology manufactures (Chelle Medical);</li> <li>▪ Development of rum exports in the last few years.</li> </ul>	<ul style="list-style-type: none"> <li>▪ The coconut oil sub-sector has declined significantly and has not led to the production of higher value-added products (a company used to produce soaps made from coconut oil but it has ceased production);</li> <li>▪ The prawn factory on Coëtivy has closed because it was too costly to operate and was not profitable;</li> <li>▪ Very limited low-technology or medium-technology products are currently being manufactured in Seychelles, and no high-technology products. Overall, the sector remains vastly dominated by resource-based manufactures;</li> <li>▪ There has been very little diversification of manufactured exports in the last 10 years, both in terms of products and markets.</li> </ul>

In terms of administrative capacity, neither DEDBI nor SEnPA seem to have the capacity to fully deliver the targets and policies under their responsibility. Specifically, DEDBI does not seem suitably staffed and SEnPA seems to need significant capacity-building before it can implement the tasks it has been entrusted with. Also, mandates of support institutions are not always clear and seem to be overlapping which both overburdens individual organisations, leads to low quality support activities and wastes government resources.

Furthermore, the relevant support institutions do not seem to have access to reliable basic statistics to monitor developments in the sector (for example disaggregated data on the number and type of manufacturing companies by sub-sector). NBS seems to have reliable and relevant data but there is a lack of information sharing.

Most relevant agencies rely on their own databases of companies, which often do not provide a realistic picture of the manufacturing sector because they are not up to date and, for example, include companies (in particular micro-enterprises) that have in the meantime ceased their activities.

The availability of quality statistics on the labour market is essential to guide the government in decision making and policy intervention: in

this context, Seychelles is planning to develop a Labour Market Information System (LMIS) which will centralise and store labour market information from all sources, and will assist in both assessing the gaps in and planning the needs of the labour market. However, the LMIS has been considered for some time and it is not operational yet.

Measures are therefore needed to overcome these institutional gaps. They include:

- Review of the service portfolio currently offered by support institutions. For example, specific assistance to manufacturing companies in the field of export development, market access, export promotion, etc. appears to be lacking at present;
- Improved systems and procedures for information sharing and effective networking between the relevant institutions in order to overcome lack of a synergy in national industrial development;
- Institutional strengthening and capacity building to individual support institutions, such as DEDBI or SEnPA;

A review of the overall system of support institutions, clarifying mandates and eliminating overlapping responsibilities – potentially also merging institutions.





## 4. CONCLUSIONS, ROAD MAP AND ACTION PLAN

### 4.1 Conclusions

The Seychelles face the limitations and constraints typical of Small Island States that have few inhabitants, are remote from the mainland and have limited natural resources. In spite of these constraints, there is potential for the country to further develop its (small-scale) manufacturing base and in particular: (i) add more value to its resource-based manufactures through further processing of the resource while at the same time capitalising more on the Seychelles' "brand"; (ii) move into the production of more low-technology, medium-technology or high-technology products; (iii) in general, target and exploit niche markets.

A major structural transformation of Seychelles' manufacturing sector in terms of its sectoral composition is not recommended. What is needed is a structural transformation of the way in which the manufacturing sub-sectors are organised and operate. The manufacturing sector should continue to be considered as one important ingredient in a diversified – as diversified as possible, given Seychelles' natural constraints – economy. Value-chain participation offers the best prospects for such diversification on a scale commensurate with the Seychelles' size.

Seychelles currently does not have an updated strategic policy document to guide the Government's policies as regards the manufacturing sector: one of the most urgent actions to be undertaken is to adopt a revised manufacturing/industrial policy and strategy to provide an official framework for the development of the sector. Moreover, a large number of support institutions exist but some key institutions do not seem to have the capacity to fully deliver the targets and policies under their responsibility: there is a need for institutional strengthening and a review of the overall system of support institutions

Seychelles has so far handled reasonably well the constraint of smallness and fragmentation, which typically raises costs of public services and infrastructure. However, the cost of energy remains a significant constraint for manufacturing firms and the Government should pursue its efforts to diversify the country's energy mix and in particular develop renewable energies

The lack of adequately skilled labour constitutes a major constraint for the further development of the manufacturing sector and needs to be addressed by policy measures. The availability of technical training needs to be improved, as it is currently not sufficient to address the needs of the manufacturing sector.

Seychelles is now approaching the innovation-driven stage of development and it needs to lay the fundamentals for higher-value added growth. In this context, linkages between the university and manufacturers would need to be developed and university-linked clusters could be established.

Finally, Seychelles needs to offset its geographic constraints through integration with larger economies: the country is faced with significant diseconomies of scale but the regional market capacity could precisely support the exploitation of economies of scale.

Based on these findings, we provide in the next section a roadmap/action plan to strengthen the role of manufacturing as a dynamic force of economic development and transformation in Seychelles.

### 4.2 Road Map and Action plan

The following tabular road map and action plan constitutes a nucleus for the further development by Government and was adjusted and completed based on comments received during the national workshop.

## EASTERN AFRICA'S MANUFACTURING SECTOR - SEYCHELLES COUNTRY REPORT

Action	Expected outcome	Responsibility	Timing	Pre-conditions
Horizontal Policies				
1. Manufacturing strategy				
1.1. Action 1 : Adopt manufacturing strategy and policy	Official framework in place for development of manufacturing sector, with targets and deadlines Monitoring system in place	DEDBI	Short term	
2. Infrastructure: Energy, Transport and Communication				
2.1. Action 2 : Pursue efforts to diversify the country's energy mix and in particular develop renewable energies	Reduced dependence on imported energy for manufacturing firms	Ministry of Environment and Energy, Seychelles Energy Commission, Public Utilities Corporation	Long term	
2.2. Action 3: Replace the current utilities stepped tariff system based on increasing unit/marginal rates by flat unit rates.	Reduce risk of penalising successful producers by higher utility rates	Public Utilities Corporation	Short term	
2.3. Action 4 : Set up a PPP framework for investment in infrastructure	Expanded access for manufacturing firms (esp. in outer islands) to high-quality infrastructure	Ministry of Finance, Trade and Investment	Medium term	Audit of existing laws and regulations relevant for the implementation of PPPs
3. Support institutions				
3.1. Action 5: Review the overall system of support institutions, clarifying mandates and eliminating overlapping responsibilities	Streamlined support infrastructure with clear mandates and without overlap	Government / All support institutions	Short term	
3.2. Action 6: Strengthen the capacities of DEDBI	Fully functioning and effective DEDBI	Donors / DEDBI	Short term	Funding
3.3. Action 7: Strengthen the capacities of SEnPA	Fully functioning and effective SEnPA	Donors / SEnPA	Short term	Funding
3.4. Action 8 : Improve systems and procedures for information sharing and effective	Improved systems and procedures for information sharing	All relevant support institutions	Medium term	



Action	Expected outcome	Responsibility	Timing	Pre-conditions
networking between support institutions				
3.5. Action 9: Empower organisations representing the manufacturing sector	Better representation/ advocacy of manufacturing sector vis-à-vis Government	DEDBI / SCCI	Medium term	
3.6. Action 10 : Promote development of local professional services (e.g. lawyers, accountants, auditors, export specialists, etc.)	Efficient business services available to manufacturing firms	DEDBI / SIB / University of Seychelles	Long term	
4. Improve the quality infrastructure.				
4.1. Action 11: Promote widespread adoption of international standards to facilitate global market access	Enhanced exportability of locally manufactured products and lower compliance costs for manufacturers	Seychelles Bureau of Standards	Medium term	
4.2. Action 12: Provide incentives for companies being ISO certified	Enhanced quality of locally manufactured products	DEDBI / Ministry of Finance, Trade and Investment / Seychelles Bureau of Standards	Medium term	
5. Access to finance				
5.1. Action 13: Establish specific Fund for the manufacturing sector or earmark resources within existing funds	Enhanced access to finance for manufacturers	DEDBI / Ministry of Finance, Trade and Investment / DBS	Short term	Review of the operations of existing funds
6. Innovation and linkages				
6.1. Action 14: Develop linkages between the university and manufacturers (and agricultural producers) with a view to set up a knowledge -based industry cluster/ technology centre.	Development of innovative products and process innovations	DEDBI / University of Seychelles	Medium term	

7. Education, training and skills level				
7.1. Action 15: Strengthen tertiary education and vocational training	Increased availability of suitably qualified labour	Ministry of Education / Tertiary Education Commission / Ministry of Labour and Human Resource Development	Long term	
7.2. Action 16: Strengthen entrepreneurial capacities	Increased availability of managerial skills	DEDBI / University of Seychelles and vocational training institutions	Medium term	
7.3. Action 17 : Ensure transfer of knowledge from expatriates to Seychellois workers	Reduced dependence on expatriate labour	Ministry of Labour and Human Resource Development	Medium term	
7.4. Action 18 : Implement the LMIS	Better planning capacity for Government	Ministry of Labour and Human Resource Development	Short term	
8. Regional integration and export development				
8.1. Action 19 : Encourage joint investments with African firms	Insertion into regional value chains	DEDBI / SEnPA / Ministry of Finance, Trade and Investment	Medium term	
8.2. Action 20: Develop export to non - traditional markets (China, India, Africa)	Reduced dependence on EU as export market	DEDBI / SEnPA / Ministry of Finance, Trade and Investment	Medium term	
Sectoral / Vertical Policies				
1. Sector 1 – Processing of fish and fish products				
1.1. Action 21: Study (re -) introduction of aquaculture	Availability of farmed fish as an alternative input	Seychelles Fishing Authority	Short term	
1.2. Action 22: Monitoring species and adjusting quotas	Sustainable availability of core raw material	Seychelles Fishing Authority	Long term	
1.3. Action 23: Develop linkages with research bodies	Diversified product portfolio	Seychelles Fishing Authority / University of Seychelles	Medium term	



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2. Sector 2 : Agriculture -based processing: essential oils and coconut oil				
2.1. Action 24 : Develop farming -processing - tourism clusters	Expanded sales, development of local value chains	DEDBI / Ministry of Natural Resources / Ministry of Tourism / IDC	Short term	
2.2. Action 25: Develop linkages with research bodies	Diversified product portfolio	Ministry of Natural Resources / University of Seychelles	Medium term	
3. Sector 3 : Other non - traditional agriculture based manufacturing				
3.1. Action 26: Identify other niche markets for resource -based manufacturing (e.g. copra, cinnamon, etc.)	Diversified manufacturing sector, strengthened economy esp. of outer islands	DEDBI / Ministry of Natural Resources / IDC	Medium term	

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