United Nations Economic Commission for Africa | Office for Eastern Africa

ideas for a prosperous Africa

Preliminary Draft

Socio-economic Assessment of Blue Potential in Seychelles

21 April 2021

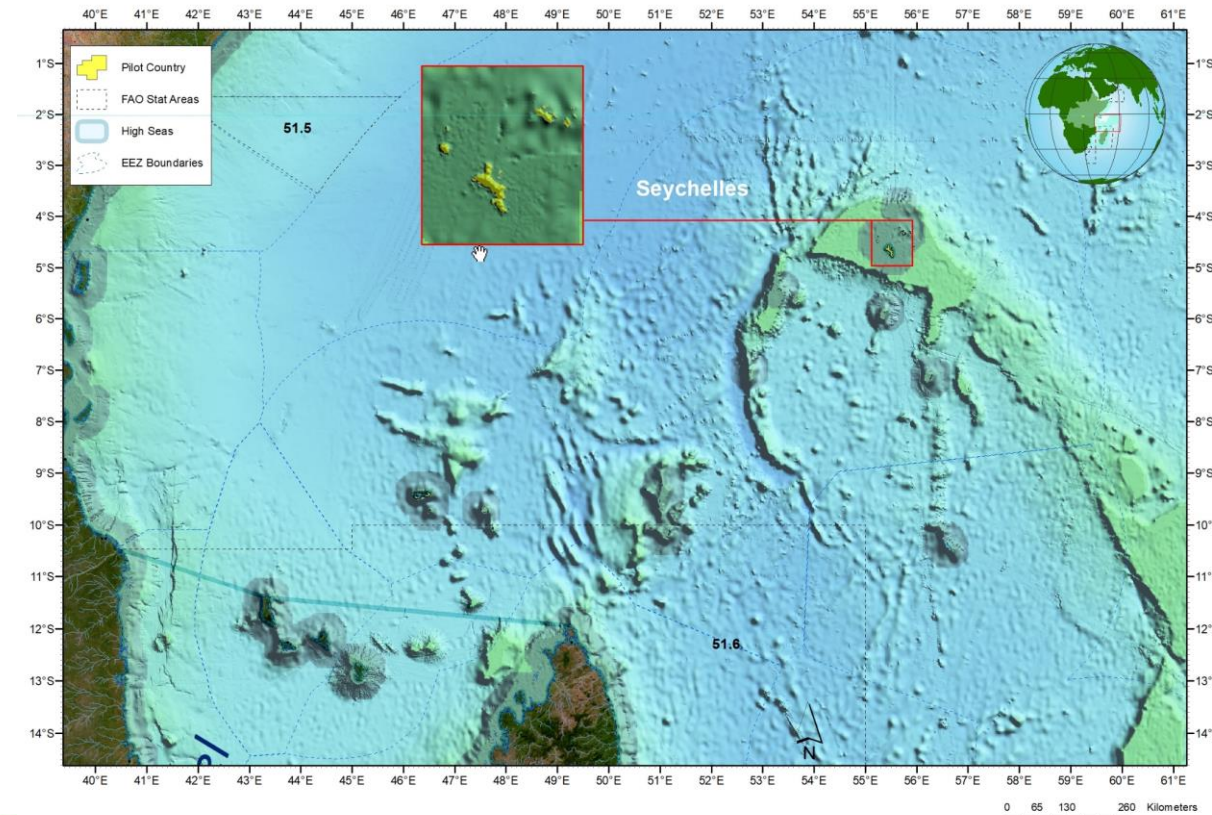Read draft assessment at:
bit.ly/SeychellesBE

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Seychelles

- **BEVTK = Blue Economy Valuation Toolkit**

- **UNECA identified a gap – BE reporting**

- **Seychelles identified as a pilot:**
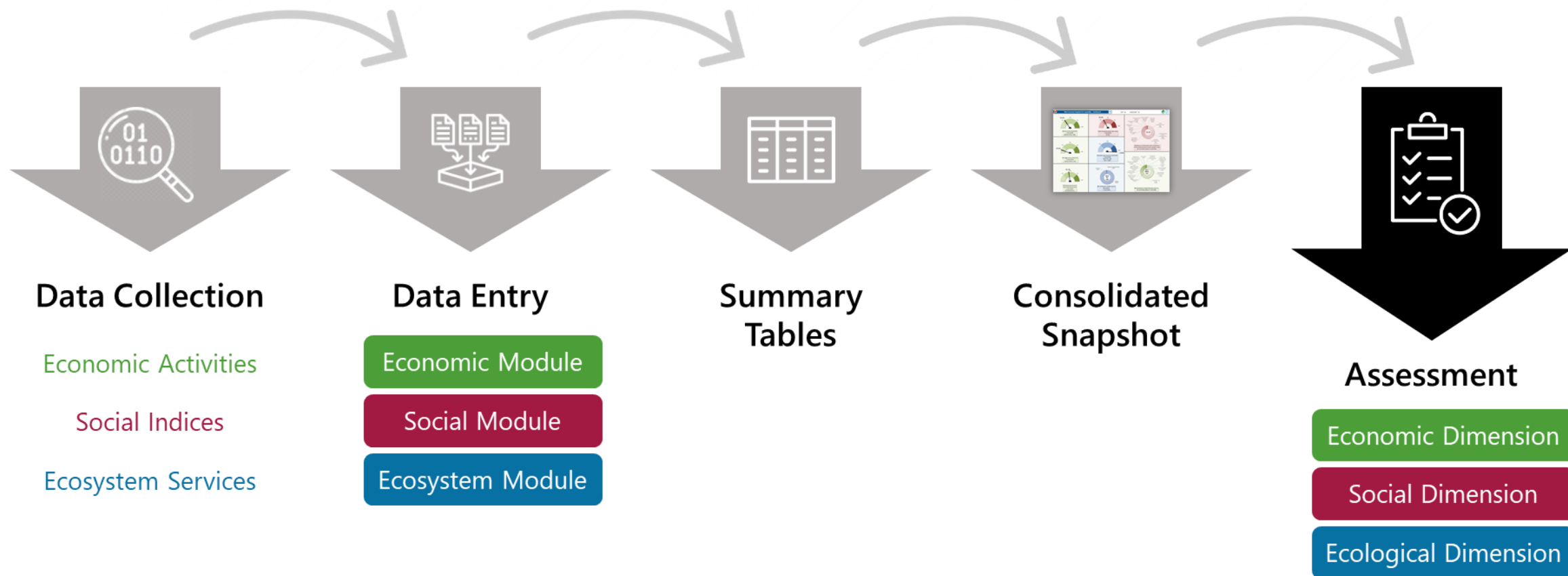
  - **Leading role in Blue Economy space**

  - **Island status**

- **Focus: Developing the BEVTK**

- **Identify data sources**

- **Interact with stakeholders**

- **Identify challenges**

- **Test the BEVTK**

- **Focus: Social data, refining the BEVTK**

- **Establishing social indicators relevant to UNECA and Seychelles**

- **SDG approach**

- **Consider social indicators unique to Seychelles that are measurable**

METHODOLOGY BEHIND THE BEVTK

Data Collection

Economic Activities

Social Indices

Ecosystem Services

Data Entry

Economic Module

Social Module

Ecosystem Module

Summary Tables

Consolidated Snapshot

Assessment

Economic Dimension

Social Dimension

Ecological Dimension

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OUTLINE

United Nations
Economic Commission for Africa

BLUE ECONOMY IN SEYCHELLES

- **2008: Defaulted on debt repayments**

- **Debt:GDP ratio still high (>50%)**

- **Net importer, trade deficit of ~USD300Mn (2018)**

- **Percentage of Blue Economy-related exports high, ~70% – ~90% (2018)**

- **Tourism employs ~26%, directly and indirectly accounts for ~55% of GDP**

- **Fisheries employ ~17%**

- **EEZ of ~1.35 million km², 30% in MPAs**

- **Land area of 455km², Population ~98,400**

- **Recently become a high income country (2017)**
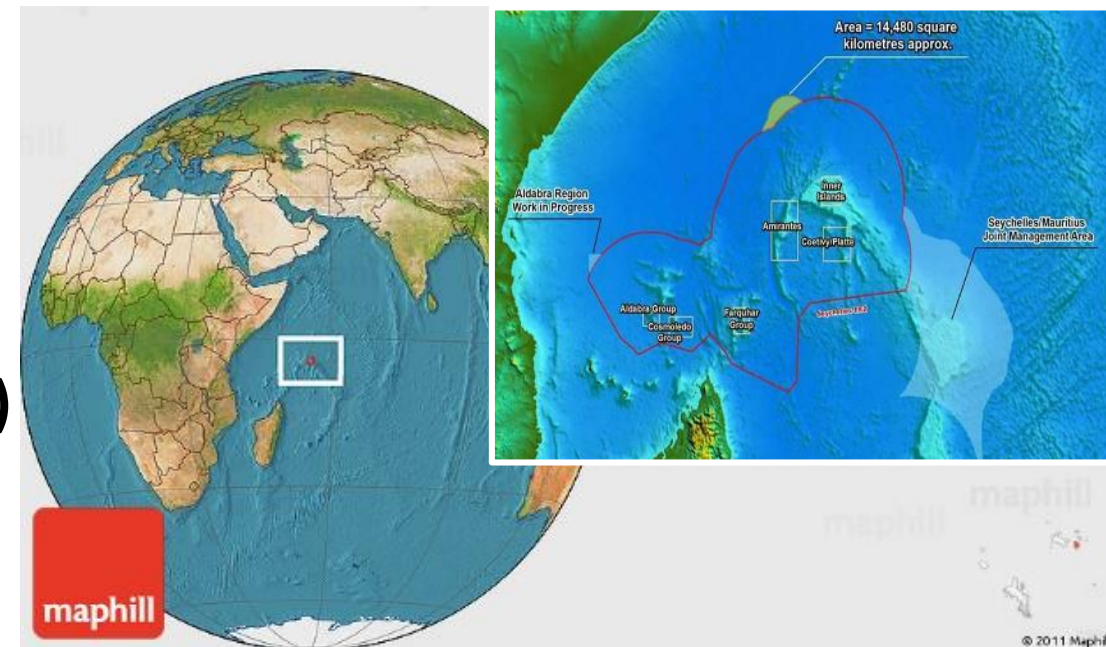
- **Early adopter of the BE concept - 2013**

- **Dept. of Blue Economy established in 2015**

  - **Ministry of Fisheries and Blue Economy**

- **Transition funding for BE = Innovative**

  - **Debt for Nature swap, Blue Bond**

- **Vital to understand value the BE brings**

- **Assists with identifying**

  - **Gaps for growth, Opportunities for investment**

  - **Where data shortages occur, Industries requiring support**

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- **Identify sources of reliable data, key stakeholders**

- **Economic and Social data:**

  - **National Bureau of Statistics (NBS) = Primary data source**

  - **Responsible for Seychelles' System of National Accounts (SNA)**

  - **Relies heavily on reporting**

  - **Pivotal stakeholder in most Economic and Social data projects**

  - **World Bank, Various UN agencies, OECD**

- **Ecological data:**

  - **Marine Spatial Plan, Ministry of Agriculture, Climate Change and Environment, Seychelles Fishing Authority, IOTC, SeyCCAT**

Idea

- **Understand how it is being used**

- **Understand whether it is being used efficiently and responsibly**

- **Seychelles: BE is integral to well being of the economy, the people and a healthy ocean will support this**

- **The ocean is impacted not just by marine use, but terrestrial use too**

OUTLINE

United Nations
Economic Commission for Africa

ECONOMIC DATA – OVERVIEW

- **Data is present, easily accessible at the highest level**

- **Almost all industries have information in the SNA at this level**

- **Applying proportions, or disaggregating data, for the BE is difficult**

- **Indicators:**

  - **GVA**

  - **Employment**

  - **Country wage contribution**

- **Sources:**
  - NBS

Economic Values

Gross Value Added
- $495Mn (2018)
- 30% of 2020 GDP

Employment
- 22,528 employed (2018)
- 40.7% of 2020 employment

Wages
- $159Mn (2018)
- 9.2% of 2020 GNI

ECONOMIC DATA – INDICATOR RESULTS

Economic Sustainability for Seychelles - GVA Dashboard

DataYear (All)

US Dollars (USD)

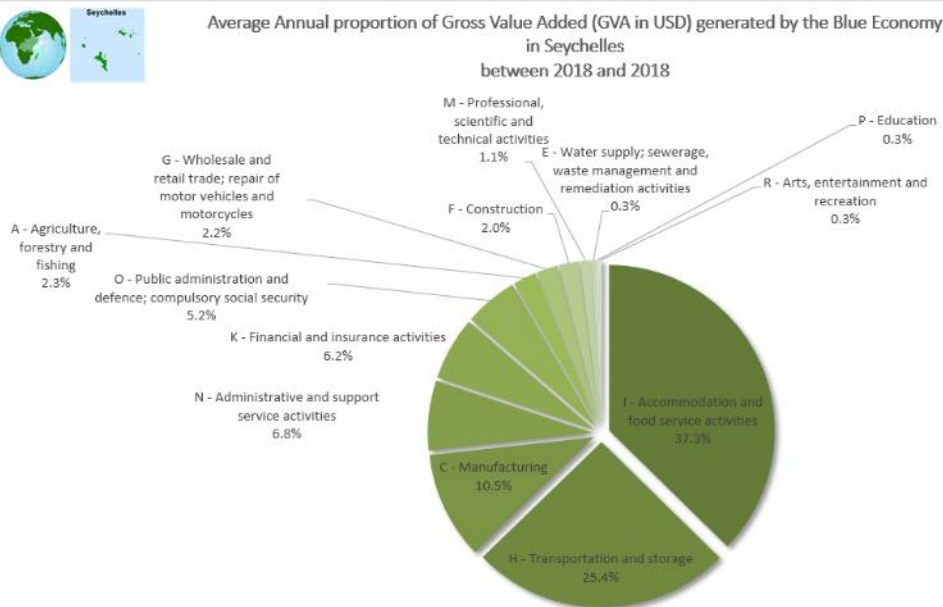| Economic Activity by ISIC Section	GVA by sector generated by BE (USD)	as a % of Total GVA generated by BE
I - Accommodation and food service activities	185,203,304	37.34%
H - Transportation and storage	126,040,395	25.41%
C - Manufacturing	52,167,033	10.52%
N - Administrative and support service activities	33,885,530	6.83%
K - Financial and insurance activities	30,776,157	6.21%
O - Public administration and defence; compulsory social security	25,970,249	5.24%
A - Agriculture, forestry and fishing	11,277,298	2.27%
G - Wholesale and retail trade; repair of motor vehicles and motorcycles	10,682,382	2.15%
F - Construction	9,697,912	1.96%
M - Professional, scientific and technical activities	5,667,583	1.14%
E - Water supply; sewerage, waste management and remediation activities	1,723,352	0.35%
P - Education	1,561,391	0.31%
R - Arts, entertainment and recreation	1,294,278	0.26%
Grand Total	**495,946,864**	**100.00%**

Instructions | Country Profile | UNECA SRO-EA Region | Economic data | GVA Summary | Wages Summary | Employment Summary

Average Annual proportion of Gross Value Added (GVA in USD) generated by the Blue Economy in Seychelles between 2018 and 2018

- Highly aggregated – SNA reports to level 1 in most cases.

- Compromises accuracy of reporting

- In some instances more detailed data is available, but not reported in SNA

- Discounting values relevant to BE per industry is difficult

OUTLINE

01 **THE BLUE ECONOMY IN SEYCHELLES**
The Island State's dependence on Natural Resources

02 **ECONOMIC DATA**
BE Metrics: Gross Value Added, Jobs and Wages

03 **SOCIAL DATA**
Poverty, Nutrition & Education; Human Development; Maritime Security Index

04 **ENVIRONMENTAL DATA**
Estimating Ecosystems Economic Value

05 **CONCLUSIONS AND WAY FORWARD**

- **Linked to SDGs and common to the BEVTK user nations**

- **Indicators:**

  - **Poverty, Nutrition & Education**

  - **Human Development**

  - **Maritime Security Index**

- **Unique to Seychelles:**

  - **Tertiary education?**

  - **Artisanal fishery? Important from livelihood, food security and cultural perspective**

- **Sources:**
  - **NBS**
  - **FAO Food Balance**
  - **OECD**

Poverty, Nutrition & Education

Living Standard

- Monetary Poverty: 25%
- Multidimensional Poverty Index: 0.04
- Electricity Access: 97%
- Drinking Water & Sanitation: 93%

Nutrition

- Annual Per Capita Fish Consumption: 58.9kg

Education

- % Youth in School: ~78%
- % Adult Population No Education: 9.5%
- Adult Literacy Rate: 95.9%
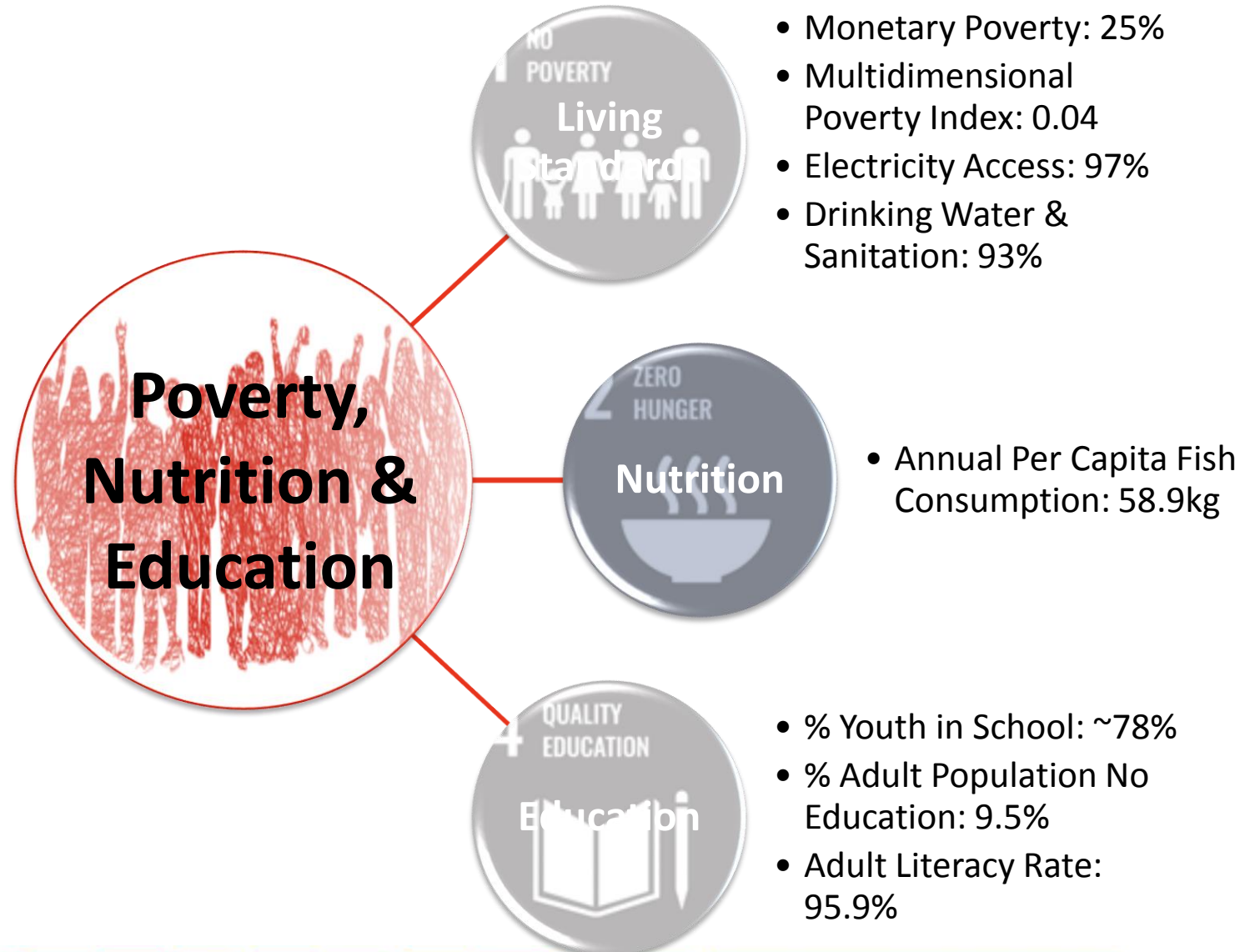
SOCIAL DATA – INDICATOR RESULTS

- **Sources:**
  - **UNDP**
  - **UNDEP (World Bank)**
  - **NBS**

Human Development & Inequality

REDUCED INEQUALITIES

Human Development Index
- 80.1

Gini Coefficient
- 46.8 (World Bank, 2013)
- 30 (NBS & Oxford, 2020)

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- **Sources:**
  - **Stable Seas**

Good Governance: 71
- International Cooperation: 100
- Rule of Law: 74
- Maritime Enforcement: 40

Maritime Security Index: 70

Economic Resilience: 70
- Coastal Welfare: 83
- Blue Economy: 50
- Fisheries: 76

Security at Sea: 85/68
- Piracy and Armed Robbery: 85
- Illicit Trade: 60
- Maritime Mixed Migration: 60
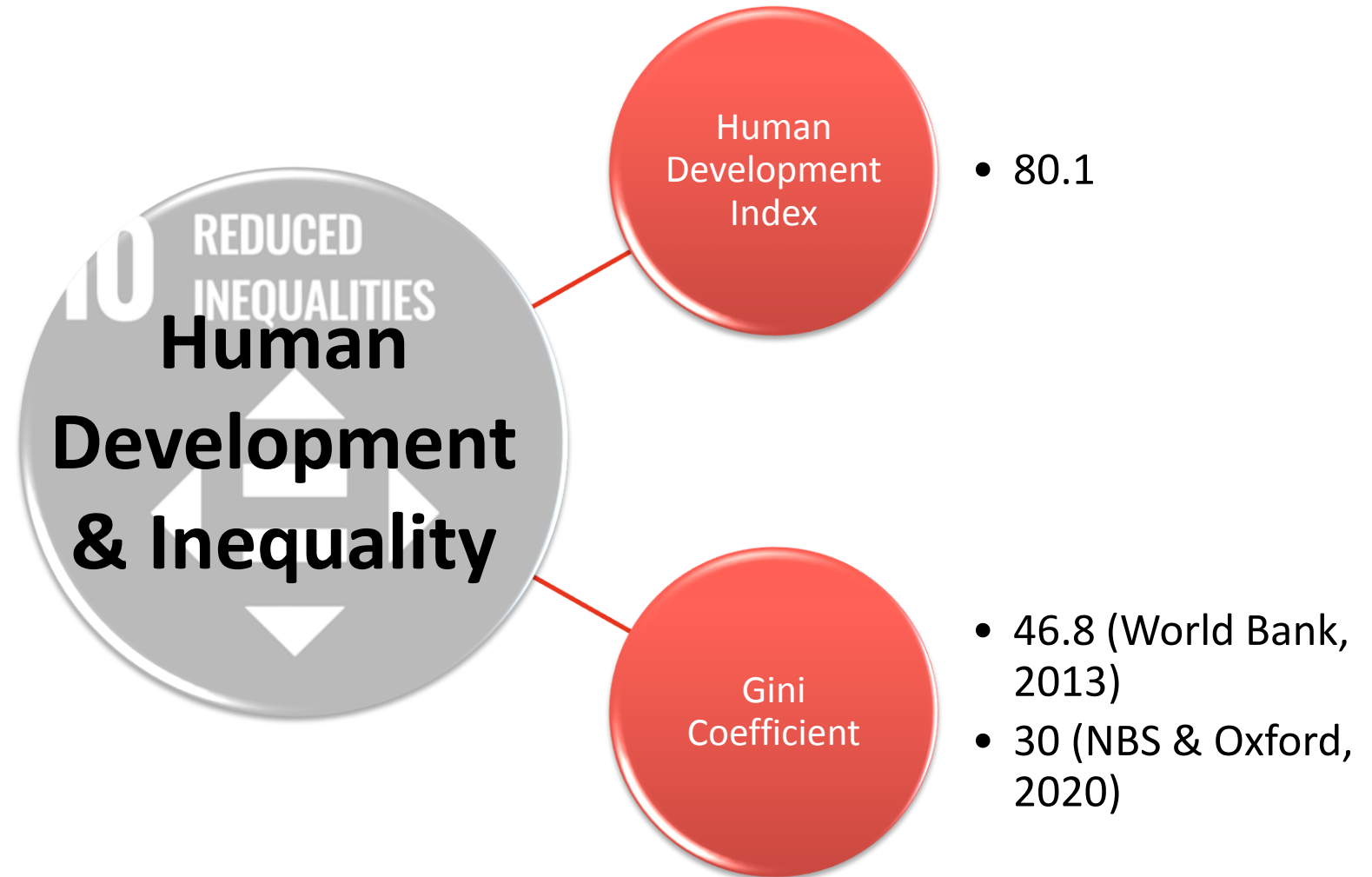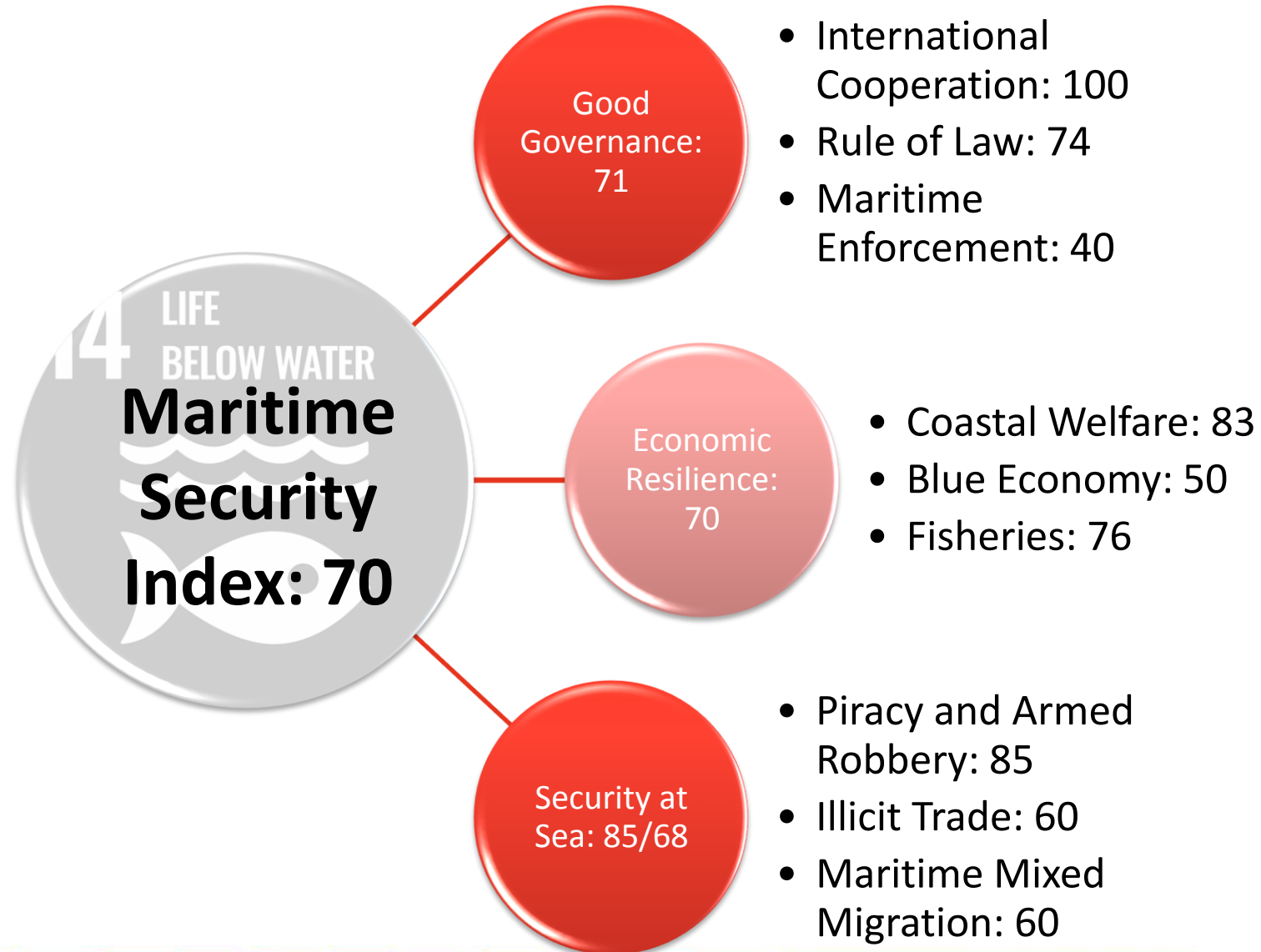
# SOCIAL DATA – INDICATOR RESULTS

Social Sustainability Summary for Seychelles - Dashboard

Social Indicators by category and dimension

DataYear	(All)

Social category/dimension/ indicator	Social Indicator value (%)
C - Corruption	66.00
C1 - Government	66.00
C11 - Corruption Perception Index (CPI)	66.00
I - Illegal actions	6.75
I4 - Organised actions	8.50
I43 - IUU (% of population affected)	15.00
I41 - Piracy (% of population affected)	2.00
I1 - illegal Traffiquing	5.00
I11 - Narcotic Traffic (% of population affect	5.00
I2 - Substance Abuse	5.00
I21 - Narcotic use (% of population affected	5.00
H - Human Development & Inequality	68.73
H2 - Human Inequality	63.25
H21 - Inequality-adjusted Human Developm	79.70
H23 - Gini coefficient	46.80
H1 - Human Development	79.70
H11 - Human Development Index (HDI)	79.70
P - Poverty, Nutrition, Education	58.90
P3 - Living standards	58.90
P37 - Fish, seafood supply quantity (kg/cap	58.90
Composite Social Index value	**39.79**

Social Indicators by category and dimension
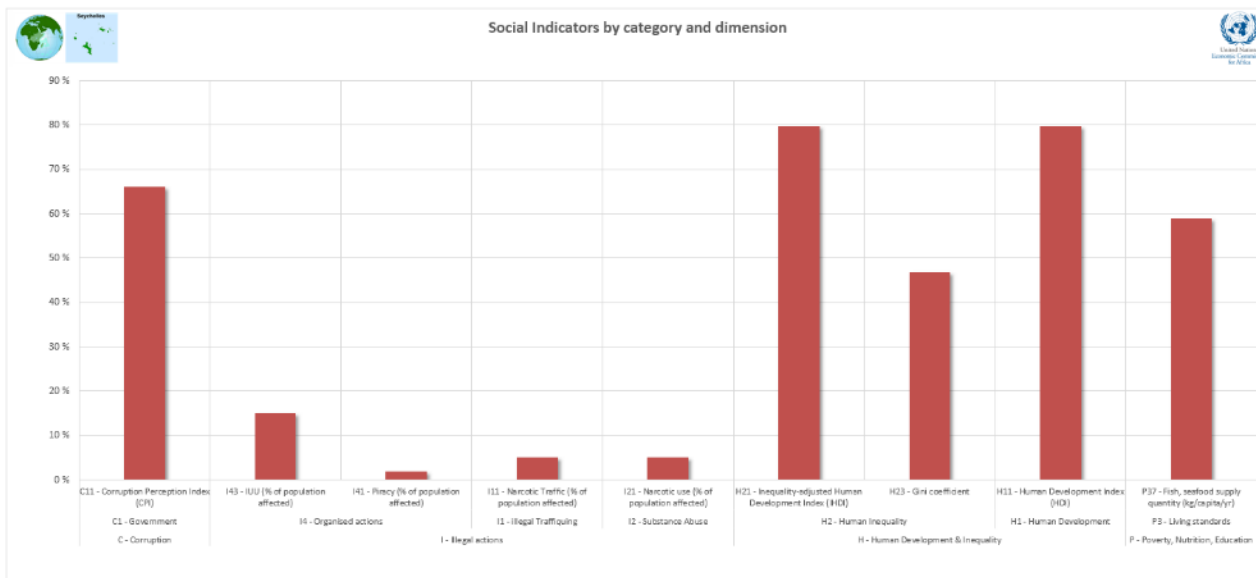
SOCIAL DATA – CHALLENGES

- Some social data is collected, but hard to create a distinct BE link

- Some social statistics are not reported to NBS that would be of importance, e.g. Drug seizures, piracy incidents, vulnerable livelihoods of fishers

- Country specific indicators can be developed, but require data access, or data collection, and manipulation

- Projects are ongoing that are gathering fishery oriented data by SFA
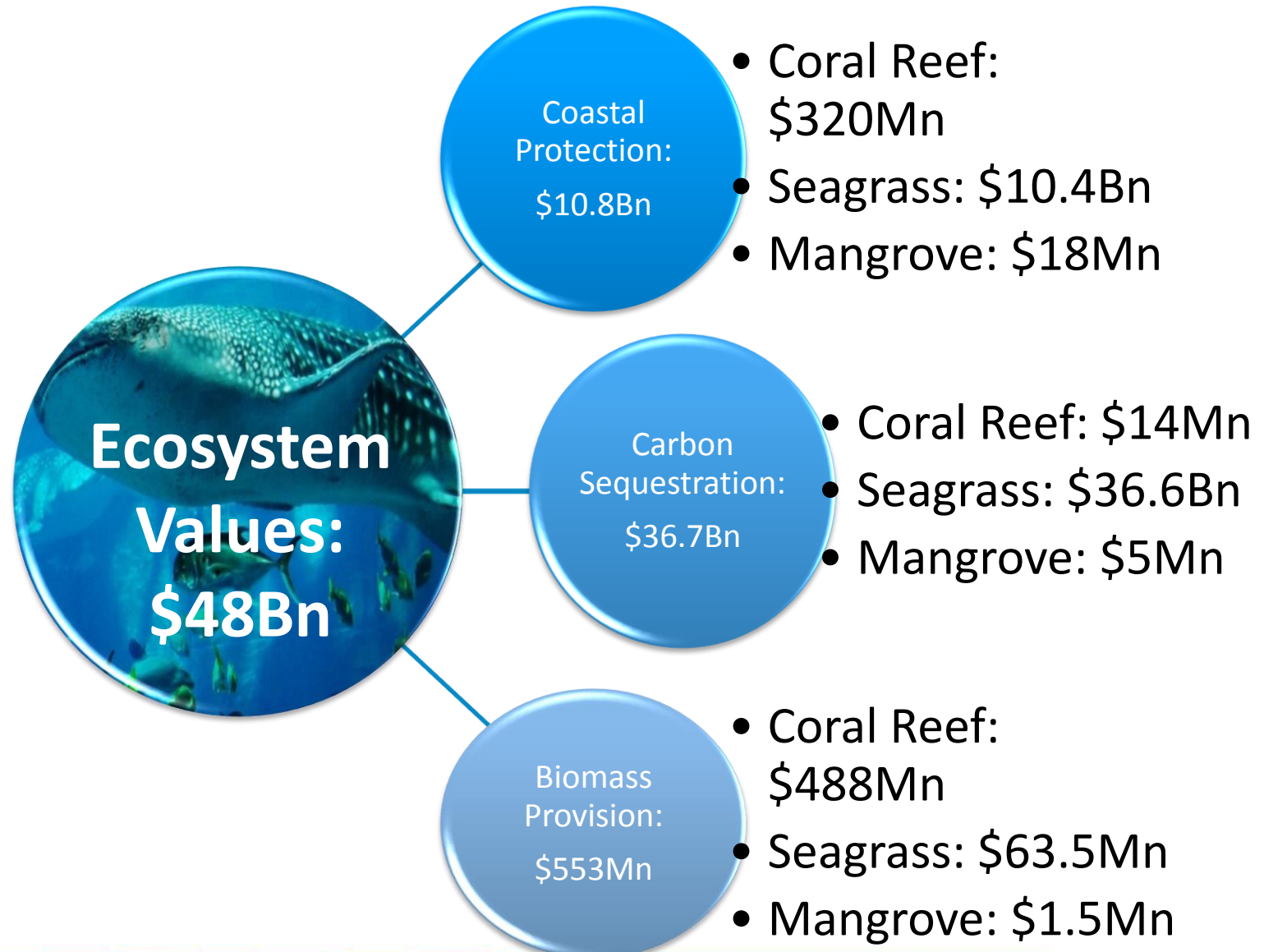
OUTLINE

- **Data gathered from Marine Spatial Plan (MSP) documents, National Biodiversity Strategic Action Plan**

- **Focused on Coral Reefs, Mangroves and Seagrass Meadows at the moment**

  - **Sea mounts, marine canyons exist, and many important spawning grounds**

- **Mangrove (25Km^2) and Coral Reef (1,700Km^2) data available**

- **Seagrass (27,300km^2 in MPAs): estimated value from MSP documents**

- **Per unit values based on published valuation studies**

ECOSYSTEM DATA – INDICATOR RESULTS

- **Valued at $48Bn**

- **Sources:**
  - MSP Nomination File
  - NBSAP
  - Tregarot, Failler & Marechal
    (2017) – valuation data

Ecosystem Values: $48Bn

Coastal Protection: $10.8Bn
- Coral Reef: $320Mn
- Seagrass: $10.4Bn
- Mangrove: $18Mn

Carbon Sequestration: $36.7Bn
- Coral Reef: $14Mn
- Seagrass: $36.6Bn
- Mangrove: $5Mn

Biomass Provision: $553Mn
- Coral Reef: $488Mn
- Seagrass: $63.5Mn
- Mangrove: $1.5Mn

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ECOSYSTEM DATA – INDICATOR RESULTS

- **Valued at $48Bn**

Ecosystem Services for Seychelles - Dashboard

(USD) Ecosystem Classification/ Service	Estimated Value of Ecosystem Service	Ecosystem Service Contribution to the overall
3 - Marine - Neritic	**48,047,938,882**	**100.0%**
3.08 - Coral reef		
3.08.1 - Outer Reef Channel	839,011,701	1.7%
1 - Provisioning (Biotic)	**506,490,988**	**1.1%**
1.1 - Biomass	506,490,988	1.1%
2 - Regulation & Maintenance (Biotic)	**332,520,713**	**0.7%**
2.2 - Regulation of physical, chemical, biological conditions	317,978,794	0.7%
2.1 - Transformation of biochemical or physical inputs to ecosystems	14,541,919	0.0%
3.09 - Seagrass		
(blank)	47,208,927,181	98.2%
1 - Provisioning (Biotic)	**63,515,559**	**0.1%**
1.1 - Biomass	63,515,559	0.1%
2 - Regulation & Maintenance (Biotic)	**47,145,411,621**	**98.1%**
2.2 - Regulation of physical, chemical, biological conditions	10,470,365,955	21.8%
2.1 - Transformation of biochemical or physical inputs to ecosystems	36,675,045,666	76.3%
6 - Marine - Intertidal	**20,855,596**	**0.0%**
6.07 - Mangrove Submerged Roots		
(blank)	20,855,596	0.0%
1 - Provisioning (Biotic)	**1,476,044**	**0.0%**
1.1 - Biomass	1,476,044	0.0%
2 - Regulation & Maintenance (Biotic)	**19,379,552**	**0.0%**
2.2 - Regulation of physical, chemical, biological conditions	14,067,252	0.0%
2.1 - Transformation of biochemical or physical inputs to ecosystems	5,312,300	0.0%
Grand Total	**48,068,794,478**	**100.0%**

- **Data exists, but difficult to find and obtain**

- **Data is not standardized**

- **Lack of measurable data, and consistency, in ecological data collection**

- **Input of values requires personnel to be familiar with ecosystem services**

OUTLINE

01 THE BLUE ECONOMY IN SEYCHELLES
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02 ECONOMIC DATA
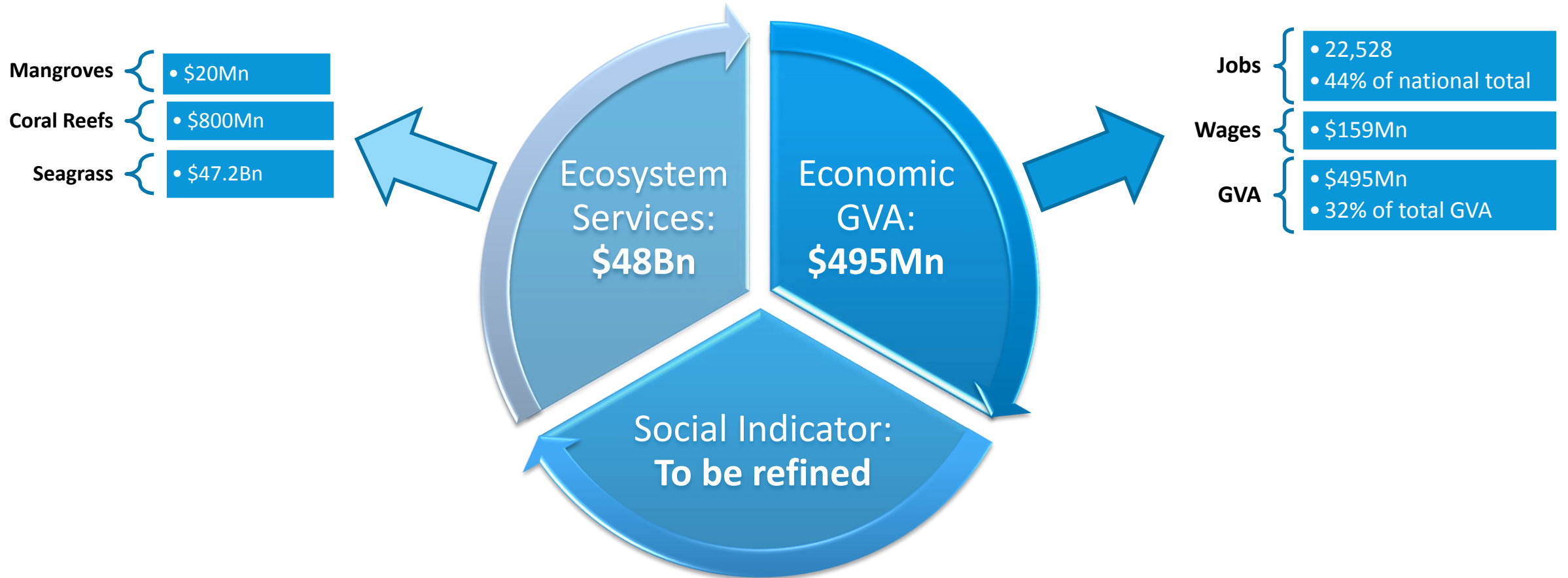BE Metrics: Gross Value Added, Jobs and Wages

03 SOCIAL DATA
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05 CONCLUSIONS AND WAY FORWARD

- Phase II has delivered more sound results, that will benefit from comments by stakeholders

- Difficulties remain with apportioning data to the BE in a small, intricately ocean-oriented country

- Further environmental data would benefit from collaborative planning

- Prioritise which ecosystems should be measured and valued

- BEVTK is a good tool that presents snapshot and summarises data

- Being flexible, BEVTK has a high potential use and applicability value

- Addresses the opportunity of centralising key data relevant to BE

- Need to decide who to be custodian – custodian will need assistance

- Will only work if we highlight where data sources are, and what needs to be done to gather the data

  - Need to ensure the process will be replicable and 'easy' for the implementing department

- Can drive further investment in BE, both locally and internationally

- Discounting relevant to BE will become more accurate in time – SUTs, Satellite Accounts

- Most important is ease of use, and knowledge of tool

THANK YOU!

http://bit.ly/SeychellesBE

Questions and Discussion points?

- Are the indicators included in the socio-economic assessment representative of Seychelles' Blue Economy? How could they be improved?

- Are there any other Seychelles' specific socioeconomic indicators that should be included?

- Can any indicators suggested above be collected and compiled accurately and cost effectively within a suitable time-frame going forward?

- Are the results of the BEVTK likely to be used by government or policy makers going forward?

- What failings do you see with the BEVTK, and how could them be improved?