

SDG INVESTOR MAP REPORT

FOR NAMIBIA



MIT
Ministry of
Industrialisation
& Trade

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I. ACRONYMS

AfCFTA	African Continental Free Trade Area
AU	African Union
ATM	Automated Teller Machine
CBNRM	Community-based natural resource management
COSDECs	Community Skills Development Centres
COVID-19	Coronavirus disease 2019
DRC	Democratic Republic of the Congo
ECD	Early Childhood Development
ECB	Electricity Control Board
EPZ	Export Processing Zone
ESIP	Education Sector Improvement Programme
FDI	Foreign Direct Investment
FIA	Foreign Investment Act of 1990
FNB	First National Bank
FPBH	Fresh Produce Business Hubs
GBN	Global Business Network Programme
GDP	Gross Domestic Product
GIPF	Government Institutions Pension Fund
GW	Gigawatt
HIV	Human Immunodeficiency Virus
HDI	Human Development Index
HPP	Harambee Prosperity Plan
ICT	Information and Communications Technology
IPP	Independent Power Producer
IOA	Investment Opportunity Area
KM	Kilometre
KWh/m²	Kilowatt-hours per square meter
MAWF	Ministry of Agriculture, Water and Forestry
MHETI	Ministry of Higher Education, Training and Innovation
MIT	Ministry of Industrialisation and Trade
MoE	Ministry of Education
MoF	Ministry of Finance
MoHSS	Ministry of Health and Social Services
MSP	Market Share Promotion
MSB	Modified Single Buyer
Mt	Megatonne

MW	Megawatts (electricity)
N\$	Namibian dollar (currency)
NAD	Namibian dollar (currency)
NDP4	Fourth National Development Plan
NDP5	Fifth National Development Plan
NAB	Namibian Agronomic Board
NHIES	Namibia Household Income and Expenditure Survey
NIDA	Namibia Industrial Development Agency
NIF	Namibian Infrastructure Fund
NIPA	Namibia Investment Promotion Act
NIPB	Namibia Investment and Promotion Board
NIRP	Namibia Integrated Resource Plan
NHDI	National Horticulture Development Initiative
NPC	National Planning Commission
NSA	Namibia Statistics Agency
NSE	Namibian Stock Exchange
NSSCO	Namibia Senior Secondary Certificate for Ordinary Level
PPA	Power Purchase Agreement
PPP	Public-Private Partnership
PV	Photovoltaics
SACU	Southern African Customs Union
SADC	Southern African Development Community
SAM	Social Accounting Metrics
SAPP	Southern African Power Pool
SB	Single buyer
SDG	Sustainable Development Goals
SHDI	Subnational Human Development Index
SOE	State-owned Enterprise
STEM	Science, Technology, Engineering and Mathematics
UNOPS	United Nations Office for Project Services

II. FOREWORD

MINISTER OF INDUSTRIALISATION AND TRADE



Hon. Lucia Lipumbu, MP

Minister of Industrialisation and Trade

The Ministry of Industrialisation and Trade (MIT) is guided by our Growth at Home Strategy that reinforces the importance of accelerating economic growth, reducing income inequality, and increasing employment. The Strategy focuses on three strategic interventions including the following:

- Supporting value addition, upgrading and diversification for sustained growth;
- Securing market access at home and abroad; and
- Improving the investment climate and conditions.

The Namibia Sustainable Development Goals Investor Map (Namibia SDG Investor Map) is an initiative that aligns with the three strategic interventions that the Ministry of Industrialisation and Trade is pursuing. The programmes of the Ministry are geared toward removing supply side constraints, increasing productive capacity, and increasing the competitiveness of Namibian Industry in the domestic, regional,

and international markets.

The Namibia SDG Investor Map has been developed in collaboration with UNDP Namibia to provide investors with country-level market intelligence that highlights key intersections between Namibia's development needs, our policy priorities, bottlenecks, and investors' interest. The aim is to work towards creating a conducive environment for investors with the aim of solidifying Namibia's strategic position as a country that has advantageous geographic location with a well-developed infrastructure offering a safe and stable business environment.

The Ministry intends to achieve this by ensuring we continue to work collaboratively with the private sector, development partners, academia, and civil society. Together, we can identify and pursue strategic investment opportunities that will facilitate the attainment of Vision 2030 along with its successful National Development Plans and the Harambee Prosperity Plan II.

The MIT is proud to be the lead government agency for the Namibia SDG Investor Map. As a Ministry, we are responsible for the development and management of Namibia's economic regulatory regime, based on the country's domestic and external economic relations that are conducted. The Ministry further promotes growth and development of the economy through policies to attract investment, increase trade, develop, and expand the country's industrial base. The Namibia SDG Investor Map will be updated on an annual basis, bearing in mind the dynamic and changing investment environment to ensure we capture new investment opportunities in key sectors that will unlock financial flows and business solutions for the achievement of the SDGs, ultimately the national development priorities, with a focus on the biggest impacts and reaching the most marginalised areas, communities, and individuals.

The Namibia SDG Investor Map 2021 has identified 15 impact-driven Investment Opportunity Areas (IOAs) across five priority sectors along with their business models and solutions. These sectors include infrastructure, agriculture, services, education, and health. While framing the IOAs in these key sectors of the economy, it was important to ensure that each IOA was sufficiently specific, within which diverse kinds of deals can take place, but also broad enough for investors to have the flexibility to deploy the best-suited funding vehicle.

The IOAs identified were specifically filtered to consider both policy momentum and viability in terms of the specific Namibian context:

1. Infrastructure

- Mini-grids and small-scale power embedded generation facilities
- Green Hydrogen infrastructure
- Utility-scale solar infrastructure
- Affordable housing
- Affordable housing finance
- Desalination technology for industrial users

2. Agriculture

- Irrigation scheme operation for commercial farmers
- Commercial Agri-developments

3. Services

- Expansion of cold storage port facilities for horticulture
- Large-scale rail infrastructure
- Community-based tourism

4. Education

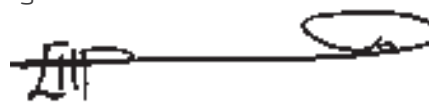
- Affordable higher education student accommodation
- Scaling up of Technical Vocational Education and Training Centers
- Private Schools Centers

5. Health

- Acute trauma and rehabilitation facility
- Manufacturing facilities for essential medicine and drugs

Further, the identified IOAs fall within the Growth at Home Agenda of manufacturing and service exports as well as key sectors researched previously in Namibia. In addition, the sectors identified are aligned to the Ministry's regional work on SADC and SACU industrialization agenda promoting bilateral and regional value chains. Finally, some sectors such as the medical services speak to the current pandemic need and support both economic and social resilience. The Ministry has made great strides in efforts aimed at attracting investment into the Namibian economy in various sectors. As such, the Namibia SDG Investor Map developed in collaboration with UNDP Namibia will be a support extension of this work, showcasing Namibian investment opportunities on a global platform. The Ministry along with its partner, UNDP Namibia, will ensure institutionalization of this work within the Ministry and the country going forward.

November 2021
Signed



Hon. Lucia lipumbu, MP
Minister of Industrialisation and Trade

III. PREFACE

Namibia is one of few countries in the developing world that has adopted and developed the SDG Investor Map, an initiative that emerged from the SDG Impact Practice Standard for Private Equity Funds that was introduced by UNDP in September 2019. The initiative is one of UNDP's flagships strategic initiatives developed by its SDG Impact Team aimed at advancing transparency and mobilising private capital to support sustainable and climate-friendly economic growth and development in programme countries.

The SDG Investor Map is a market intelligence product that is produced by countries through the technical support of UNDP and partners to help private investors (funds, financiers, corporations) to identify investment opportunities and business models in key sectors of the economy, and which have sufficient potential to support the realisation of the Sustainable Development Goals (SDGs), ultimately the national development priorities. In addition, it provides investors with actionable data and insights that enable them to use their capital to make financial profit while at the same time promoting sustainable human development in countries. This is part of effort by UNDP and other partners in collaboration with the governments to contribute to filling the SDG-financing gap by mobilising private capital in areas and sectors where it is most needed and can make a difference in the lives of citizens and the planet in terms of sustainable development.

Therefore, UNDP Namibia is pleased to have worked with the Ministry of Industrialisation and Trade and other partners including the private sector to develop the Namibia SDG Investor Map. It is quite recognizable that achieving the SDGs in Namibia will require significant investment from the private sector, noting that the current level of investment by the government and development partner organisations is not adequate to meet the ambitious targets. The articulation of the Namibia SDG Investor Map comes at an opportune time to help narrow the financing gap through the private sector, while at the same time enhancing the impact of private sector investment and growth on all dimensions of the 2030 Agenda.



Ms. Alka Bhatia

UNDP Resident Representative

The Namibia SDG Investor Map has identified five strategic sectors (infrastructure, agriculture, services, education, and health) and 15 Investment Opportunity Areas in these sectors along with their business solutions and models. These are all in line with the Namibia Growth at Home Strategy, which advocates for targeted investment promotion campaigns to contribute to economic transformation by integrating the domestic and regional value chains. In addition to the Namibia SDG Investor Map, the UN system under the technical leadership of UNDP Namibia is supporting the Government of the Republic of Namibia through the Ministry of Finance in collaboration with National Planning Commission and other key sector Ministries, Offices, and Agencies to develop and implement an Integrated National Financing Framework, which aims to bring together domestic and international public and private finance sources

through strategic policy measures and reforms.

UNDP Namibia looks forward to working with the Ministry of Industrialisation and Trade and other partners to support the implementation of the Namibia SDG Investor Map. We stand ready to play a convening role in mobilising the private sector, bilaterals, multilaterals, and other development actors to help the Government establish a sustainable development financing architecture through the private sector that will accelerate the achievement of the SDGs, ultimately the development aspirations of the country, as espoused in Vision 2030, the National Development Plan, and the Harambee Prosperity Plan II.

November 2021
Signed

Alka Bhatia

Ms. Alka Bhatia
UNDP Resident Representative



IV. ACKNOWLEDGEMENTS

Ministry of Industrialisation and Trade (MIT) and UNDP Namibia would like to thank the numerous public and private sector stakeholders who availed themselves for stakeholder interviews and consultations for this assignment. We are especially appreciative of the support from the SDG Impact Team and the stakeholders who shared additional information in the form of reports and supporting data to inform the findings and recommendations.

Expert Advisors

Producing the Namibia SDG Investor Map was indeed a joint effort by stakeholders from across the private and public sectors. Our sincere thanks and appreciation are extended to the consulting team led by Monasa Advisory & Associates (Pty) Ltd., specifically Jason Kasuto, Lionel Matthews, and Mekondjo Erastus supported by 6 Capitals (Pty) Ltd., specifically Adrian Bertrand and Melanie Smith.

Specialist Interviewees

A number of interviews and validation sessions were conducted during the development of the Namibia SDG Investor Map between November 2020 and March 2021. The Project Team led by Ms. Undjee Tjivikua supported by colleagues in UNDP and the MIT is grateful to the following institutions, technical officers, and persons:

1. Ministry of Industrialisation and Trade
2. Ministry of Finance
3. National Planning Commission
4. Bank of Namibia
5. Ministry of Agriculture, Water and Land Reform
6. Economic Advisor to the President
7. Development Bank of Namibia
8. Environmental Investment Fund
9. Government Institutions Pension Fund
10. National Industrial Development Agency
11. Namibia Water Corporation
12. NamPower
13. Namibia Wildlife Resorts
14. Meat Corporation of Namibia Ltd.
15. Walvis Bay Corridor Group
16. Namibia Investment Promotion and Development Board
17. Allan Gray
18. Capricorn Asset Management
19. Namibia Stock Exchange
20. Cirrus Capital
21. RMB Namibia
22. Standard Bank Namibia
23. Musa Capital
24. Simonis Storm Securities
25. Namibia Asset Management
26. Ohlhaber and List
27. EOS Capital
28. Bidvest
29. Konigstein Capital
30. Old Mutual
31. VPB (Pty) Ltd.
32. Ashburton Investment
33. Gondwana
34. Roots Agri-Village



Dr Michael Humavindu

Deputy Executive Director Ministry of Industrialisation and Trade



V. EXECUTIVE SUMMARY

The SDG Investor Map is a dynamic tool that was developed by the United Nations Development Programme (UNDP), specifically its SDG Impact Team. The SDG Impact is a global initiative with the mandate for impact management, impact intelligence, and impact facilitation. It is aimed at identifying investment opportunities and solutions that will empower investors with clarity, insights, and tools for accelerating investment towards the achievement of the Sustainable Development Goals (SDG). Therefore, the SDG Investor Map aims to record market-specific investment opportunities to deploy SDG-aligned capital. It identifies concrete, investable solutions to address increasingly pressing needs at the country level. It is within this context that the Namibia SDG Investor Map has been developed, which is a domestic effort aimed at identifying and highlighting SDG impact-driven investment opportunities in key sectors, along with their business models and solutions.

The Namibian SDG Investor Map 2020, like others of its kind, is the result of an extensive literature review and stakeholder engagement process, in the form of interviews with key stakeholders from related fields and industries. The map is in line with the Namibian Government's primary objectives to achieve inclusivity, sustainability and equity economically, build capable and healthy human resources, and ensure a sustainable environment; as outlined in the NDP5.

Namibia, with a population of 2 324 388, has a generally positive investment climate. Despite global economic disruptions caused by the COVID-19 pandemic, the country has maintained political stability

and continues to offer key advantages for FDI. Key components of the country's investment climate include a favourable macroeconomic environment, an independent judicial system, protection of property and contractual rights, good-quality physical and ICT infrastructure, and easy access to South Africa. Namibia is upgrading its transportation infrastructure to facilitate investment, completing the expansion of the Walvis Bay Port in 2019, with additional plans to renovate the Hosea Kutako International Airport and extend the national rail line. Namibia also has access to SACU, the SADC's Free Trade Area and, as of 2021, access to the AfCFTA and markets in Europe.

The newly established Namibia Investment Promotion and Development Board (NIPDB) – formerly called the Namibia Investment Centre (NIC) – now housed in the Office of the President, serves as the country's official investment promotion and facilitation office. The NIPDB will be the first point of contact for potential investors, and offers comprehensive services, from the initial inquiry stage through to operational stages. The NIPDB also provides general information packages, coordinates trade delegations, and assists with advice on investment opportunities, incentives, and procedures. The NIPDB is tasked with assisting investors in minimising bureaucratic red tape, including obtaining work visas for foreign investors, by co-ordinating with government ministries, as well as regulatory bodies.

This document itself will provide an overview of the prevailing development needs within each identi-

fied sector, sub-sector and geographical sub-region and touch on the identified Investment Opportunity Areas (IOAs) that would positively address some of these prevailing needs directly or indirectly in a sustainable way. The document will also provide an overview of the current investment climate, the impact of COVID-19 across all sectors of the country as well as a few bottlenecks that affect growth and investment across the board.

The UNDP globally standardised 8 step methodology followed by this study makes use of a type of filtering process that identifies the country's IOAs - in areas that have the greatest developmental needs, as well as a favourable environment to attract investment. This is done by taking into account the country's policy priorities, the public and private sector's investment momentum, and priority sectors and sub-sectors. The methodology undertakes the following process: (1) Define the national priorities as a starting point; (2) Identify critical sub-sectors to focus on; (3) Identify priority geographical sub-regions where there is both a high development need within each sub-sector, and strong political or financial momentum to spur potential sub-sector growth; and (4)

Derive specific IOAs: highlighting impactful business models within priority sub-sectors and sub-regions where new capital can facilitate scale, identifying potential 'white spaces' where new business models are most needed. As part of the stakeholder engagement for both information gathering and validation of the identified IOAs, a total of 34 stakeholders comprising of 16 public sector stakeholders and 18 private sector stakeholders were interviewed in compiling the Namibia SDG Investor Map.

The outcome of Namibia's Investor Map 2021 has identified thirteen impact-driven IOAs across the five priority sectors identified, which include infrastructure, agriculture, services, education and health. While framing the opportunity areas, it was important to ensure that each IOA was sufficiently specific, within which diverse kinds of deals can take place, but also broad enough for investors to have the flexibility to deploy the best-suited funding vehicle. The IOAs identified were specifically filtered to take into account both policy momentum and viability in terms of the specific Namibian context. A high-level view of the sector and sub-sector IOAs identified are captured in the figure below.

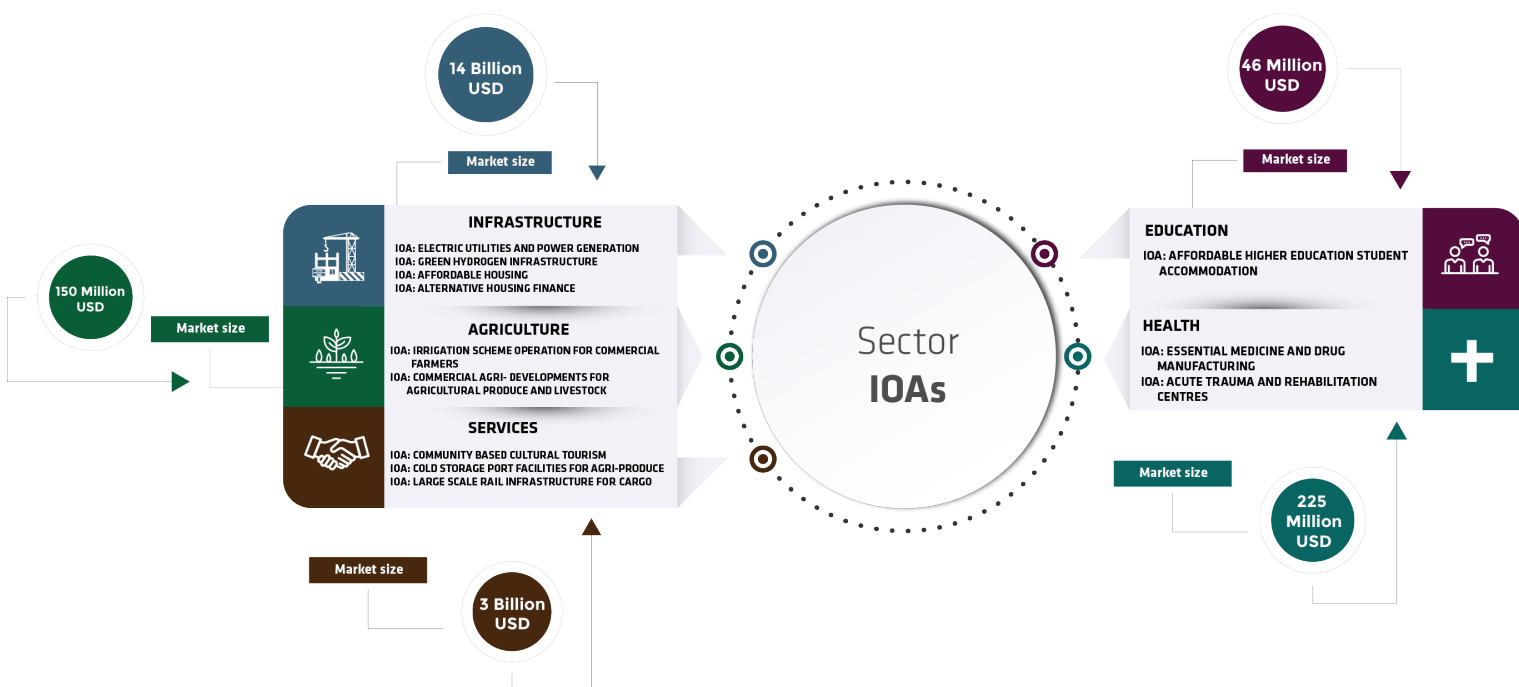


Figure 1: Summary of identified IOAs

In addition to the thirteen IOAs identified a number of other IOAs have been listed as “marginal”, these are IOAs that have either (a) strong impact and social return but negative return on capital; (b) lack of tangible feasibility data to provide a well estimated return profile; and or (c) current regulatory bottlenecks preventing scale in that sector. These marginal IOAs some of which require further feasibility studies include: water and sanitation provision in low-income areas.

The online UNDP SDG Investor Platform provides the following information on each of Namibia’s IOAs and can be accessed via

<https://sdginvestorplatform.undp.org/market-intelligence>

- Business model
- Development need

- Potential outcome
- SDG alignment
- SDG Indicators
- Priority subregion
- User or beneficiary
- Investment timeframe
- Market sizing
- Return profile
- Policy environment
- Regulatory environment
- Financial environment
- Partner environment
- Obstacles to scale
- Negative externalities
- IMP classification



1. INTRODUCTION

Namibia recognises the significance of the Sustainable Development Goals (SDGs) and is committed to their realisation. Namibia aims to continue investing resources in guaranteeing the achievement of targets, as set for specific SDGs. The mobilisation of resources, both domestic and global, will take place in order to guarantee the efficient implementation of national programmes that will facilitate the achievement of these specific goals.

Namibia has a history of showcasing an appreciation for their particular need to keep track of the global SDG agenda and the implementation status of the SDGs. Namibia – along with 47 other UN member states – volunteered to submit a first SDG Voluntary National Review in 2018. Additionally, Namibia has become one of the first countries to join the global initiative facilitated by the UNDP for the development of a country-specific SDG Investor Impact to map SDG investment opportunities.

The UNDP SDG Impact map aims to serve as a resource to facilitate better decisions that drive investment capital to where it is most needed, produce data and insights needed for increasing financial flows to the SDGs, and foster matchmaking and collaboration to realise investments. All this is done through tools that aim to make it easier for investors to direct capital to the achievement of the SDGs; one such tool being the SDG Investor Map.

SDG Investor Maps translate SDG needs and policy priorities into actionable investment opportunities by providing country-specific market intelligence backed by data and evidence. This market intelligence is locally produced by companies based on primary and secondary research, and is provided to investors and governments as a public good. The findings of the research are to be made freely available through an online platform for effortless access by both domestic and foreign investors.

SDG Investor Maps identify concrete, investable solutions to increasingly pressing needs at country

level. The Namibian SDG Investor Map is a domestic effort to identify and highlight SDG impact-driven investment opportunities.

The online UNDP SDG Investor Platform provides the following information on each of Namibia's IOAs and can be accessed via

<https://sdginvestorplatform.undp.org/market-intelligence>

- Business model
- Development need
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- Market sizing
- Return profile
- Policy environment
- Regulatory environment
- Financial environment
- Partner environment
- Obstacles to scale
- Negative externalities
- IMP classification



2. METHODOLOGY

The process of creating the Namibian SDG Investor Map follows a standardised eight-step methodology that will also be made use of by other UNDP country offices across the world. Replicating the methodology used to create SDG Investor Maps will ensure that global standardisation and replicability are fundamental aspects of the mapping. This will allow for a comparison of an extensive range of rich and diverse investment opportunities.

This methodology makes use of a type of filtering process that identifies the country's IOAs – areas that have the greatest developmental needs, as well as a favourable environment to attract investment. This is done by taking into account the country's policy priorities, the public and private sector's investment momentum, and priority sectors and sub-sectors.

The ultimate output of the standardised eight-step methodology is to assist in identifying SDG-relevant investment opportunity areas supported by actionable information, such as the IOA's marketability, scalability, evidence of investments with favourable returns, and how conducive the IOA is to investment. The methodology follows this process:

1. Define the national priorities as a starting point: Distil and compare national development needs and national policy priorities to identify sectors where there is demonstrable political or financial commitment to stimulate development and investment.
2. Identify critical sub-sectors to focus on: Prioritise sub-sectors where there is a development need and policy/investment momentum.
3. Identify priority sub-regions to focus on: Identify the sub-regions where there is both a high development need within each sub-sector, and strong political or financial momentum to spur potential sub-sector growth.
4. Derive specific IOAs: Highlight impactful business models within priority sub-sectors and sub-regions where new capital can facilitate scale, identifying potential 'white spaces' where new business models are most needed.



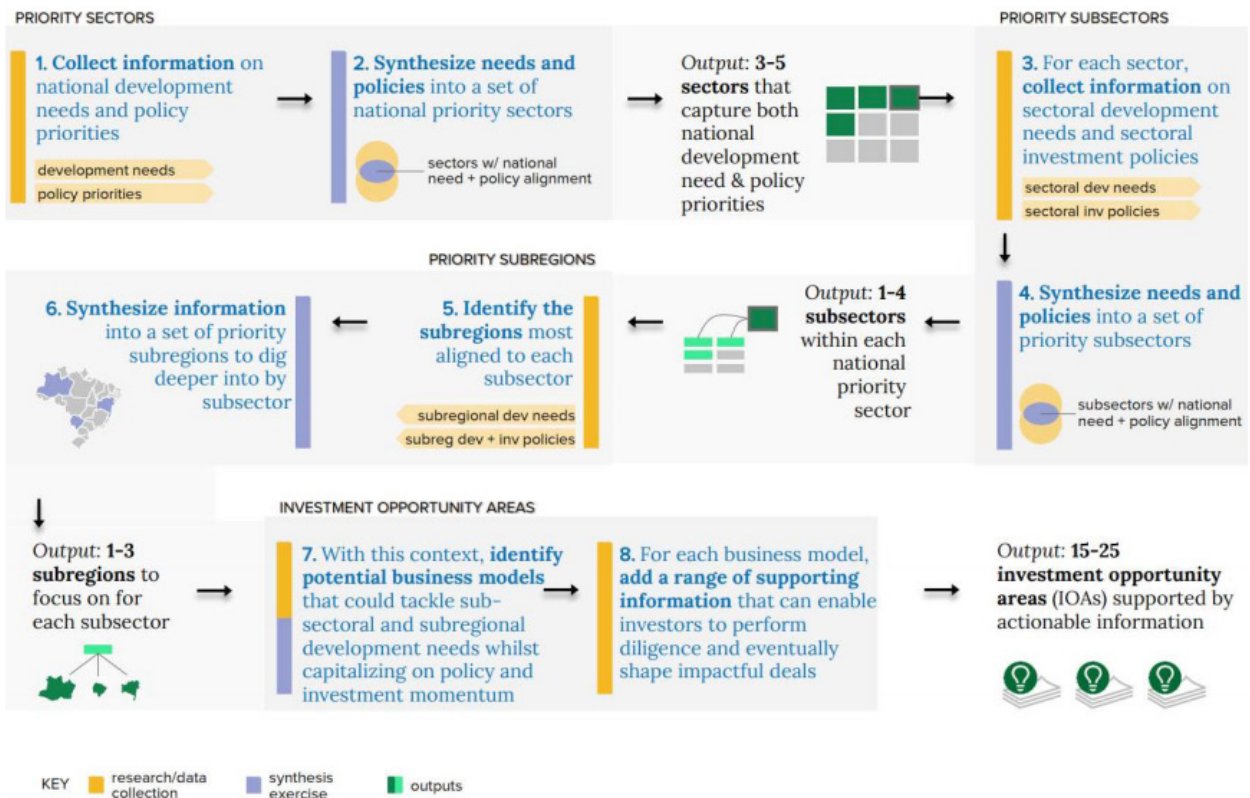


Figure 1: UNDP eight-step methodology

Due to the outreach of the maps, replicability and standardisation are important. The figure outlines the methodology that has been conceptualised by the UNDP SDG Impact.



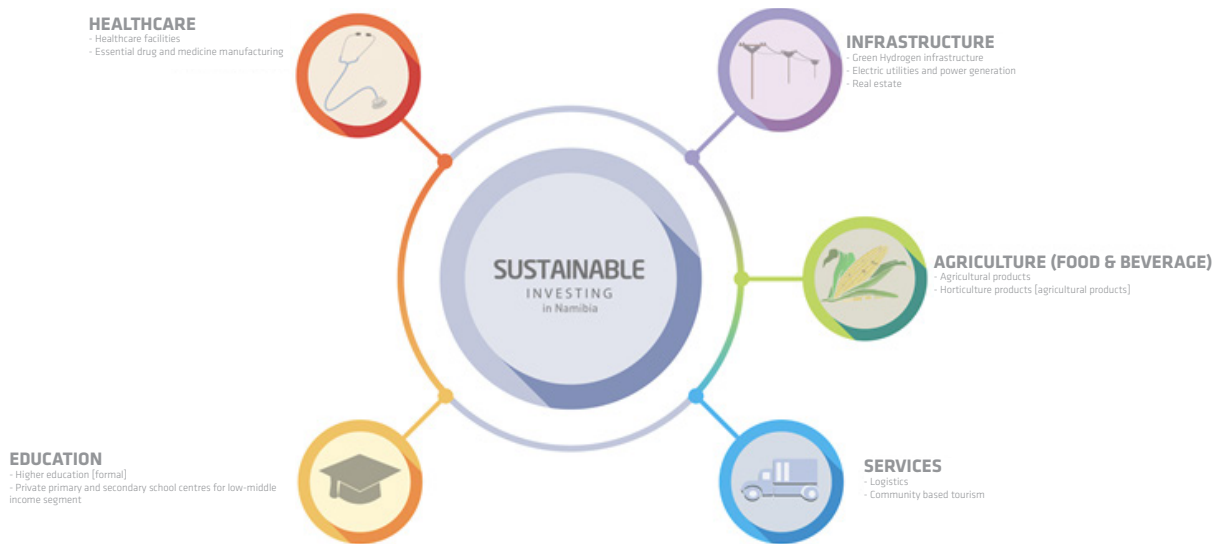


Figure 2: Investment Opportunity Areas identified for Namibia's SDG Investor Map

The above graphic illustrates the sectors and sub-sectors identified by the research team as a result of extensive desktop research and extensive stakeholder engagements with senior representatives from Namibia's public and private sectors. IOAs, within these sectors and sub-sectors are areas that

have the greatest developmental needs, as well as a favourable environment to attract investment into these sectors and sub-sectors. This is elaborated on in more detail in the sections that follow.

3. NAMIBIA'S INVESTMENT CLIMATE

Namibia, with a population of 2,324,388, has a generally positive investment climate. Despite global economic disruptions caused by the COVID-19 pandemic, the country has maintained political stability and continues to offer key advantages for FDI. Key components of the country's investment climate include a favourable macroeconomic environment, an independent judicial system, protection of property and contractual rights, good-quality physical and ICT infrastructure, and easy access to the Southern African market.

Through the commercial port of Walvis Bay, Namibia plays a crucial role in international trade as an international shipping connection with the added benefit of being a secure entrance to Africa's west coast. Namibia is becoming increasingly vital in trade, connecting global economic centres with close to 300 million Southern African customers. According to the Namibia Ports Authority (2019), the Walvis Bay corridor is a rail and road network that connects the ports of Walvis Bay and Lüderitz to the four main routes to Angola, Botswana, the Democratic Republic of Congo (DRC), Malawi, South Africa, Zambia, and Zimbabwe. Namibia is now recognized for its growing position

as a transport hub, thanks to the Walvis Bay Corridor Group's (WBCG) excellent promotion of the country's transportation network. Namibia is upgrading its transportation infrastructure to facilitate investment, completing the expansion of the Walvis Bay Port in 2019, with additional plans to renovate the Hosea Kutako International Airport and extend the national rail line. Namibia also has access to SADC's Free Trade Area and, as of 2021, access to the AfCFTA and markets in Europe. A snapshot of Namibia's climate for investment across a number of key pillars is captured in the table below.



Pillar	Result
Global Rankings	<ul style="list-style-type: none"> Ranked no. 1 for best road infrastructure in Africa Ranked no. 1 in Africa for press freedom Ranked top 5 least corrupt countries in Africa Ranked top 6 in Sub-Sahara Africa on Economic Freedom Index
Stability and market environment	<ul style="list-style-type: none"> Favourable macroeconomic environment, a well-developed financial sector, an independent judicial system, protection of property and contractual rights, good-quality physical and ICT infrastructure, and easy access to the Southern African market with a population of 300 million.
Investment readiness	<ul style="list-style-type: none"> Namibia has recently (2021) established the Namibia Investment Promotion & Development Board (NIPDB) under the Office of the President. NIPDB is the official investment promotion and facilitation office.
Natural Resources	<ul style="list-style-type: none"> Diamonds, copper, uranium, gold, silver, lead, tin, lithium, cadmium, tungsten, zinc, salt, hydropower, fish, coal, iron ore and suspected deposits of oil. Namibia has the highest average practical photovoltaic power (PV) power potential of any country in world. Namibia is currently investigating the feasibility of producing green hydrogen and ammonia as a new strategic industry.
Policy environment	<ul style="list-style-type: none"> The Harambee Prosperity Plan II (2021-2025) released by the Office of the President is build on five pillars: Effective Governance, Economic Advancement, Infrastructure Development, International Relations and Cooperation and Social Progression. In addition, some of the key national policies and legislation related to domestic and foreign trade are: Vision 2030; National Development Plans; Namibia's Industrial Policy; Growth at Home Strategy; the Business and Intellectual Property Authority Act 8 of 2016; Foreign Investment Act 27 of 1990, 2016; Import and Export Control Act 30 of 1994; and Infant Industry Protection.

Table 2: Snapshot Namibia Investment Climate across indexes

The Namibian Government recognises the significant role that FDI can play in the development of the country. This is reflected in various key laws, policies and strategies, such as: The Constitution of the Republic of Namibia, Vision 2030; National Development Plans; Harambee Prosperity Plan II (2021 – 2025); Namibia’s Industrial Policy; Growth at Home Strategy; Business and Intellectual Property Authority Act 8 of 2016; Foreign Investment Act 27 of 1990, 2016; Import and Export Control Act 30 of 1994; Infant Industry Protection and; Labour Act 27 of 2007.

The Ministry of Industrialisation and Trade (MIT) is the governmental authority primarily responsible for carrying out the provisions of the Foreign Investment Act of 1990 (FIA). In August 2016, Namibia promulgated and gazetted the Namibia Investment Promotion Act (NIPA). However, this act has not been enforced, due to substantive legal concerns raised by the private sector. MIT has held extensive consultations in reviewing the NIPA, as such a revised NIPA will be tabled in parliament before March 2022.

Therefore, the FIA remains the guiding legislation on investment in Namibia. The FIA guarantees equal treatment for foreign investors and Namibian firms, including the possibility of fair compensation in the event of expropriation; international arbitration of disputes between investors and the government; the right to remit profits; and access to foreign exchange. Investment and tax incentives are also available for the manufacturing sector.

The newly established Namibia Investment Promotion and Development Board (NIPDB) – formerly called the Namibia Investment Centre (NIC) – now housed in the Office of the President, serves as the country’s official investment promotion and facilitation office. The NIPDB will be the first point of contact for potential investors, and offers comprehensive services, from the initial inquiry stage through to operational stages. The NIPDB also provides general information packages, coordinates trade delegations, and assists with advice on investment opportunities, incentives, and procedures. The NIPDB is tasked with assisting investors in minimising bureaucratic red tape, including obtaining work visas for foreign

investors, by co-ordinating with government ministries, as well as regulatory bodies. The NIPDB as a key stakeholder interviewed in the development of this report confirmed that it has prioritised the finalization of Namibia Investment Promotion Act as well as addressing the bottlenecks to investment identified in section 5 of this report.

FDI stock shows that investment in Namibia is mainly concentrated in the mining sector in the form of equity and debt, with China being the top investor country of origin. These investments taking place mainly in the mining sector, including from Mauritius, are primarily resource seeking and capital intensive – therefore these investments’ ability to create employment is low. South Africa’s investment in Namibia is mainly in the financial sector, as South African banks dominate the Namibian market. These forms of investments yield better opportunities for Namibia, as they are associated with employment opportunities and higher tax revenues.

4. KEY OPPORTUNITY THEMES FROM STAKEHOLDER ENGAGEMENTS

4.1. Public sector stakeholder engagement takeaways

During the first phase of the investor mapping exercise, outlined by the UNDP standardised eight-step methodology, the consultants took to reviewing a number of development assessments and policy frameworks in order to identify the country's prevailing development needs and priorities. Public sector stakeholders, which include key policy makers in charge of development planning, relevant ministries and specialised sector experts were engaged in order to validate findings and assess existing policy directives and targeted interventions.

Five key priority sectors were identified, which were consistently aligned with national development priorities and underperforming Human Development Index (HDI) variables. Public stakeholders provided insight and identified a number of additional sub-sector priorities, including prioritisation of transport and ICT infrastructure as a catalyst to economic development; the expansion of the logistics and financial services sectors; and the establishment of targeted regional healthcare facilities.

Public stakeholder engagements further revealed a number of key themes, which include the strengthening of structural frameworks that would facilitate an enabling environment for private investment to assist the state in achieving a number of long-term industrialisation targets. Public stakeholders also highlighted the need to address structural inefficiencies, which have progressively led to a high-cost economy, affecting both producers and consumers, resulting in the stifling of economic growth. The development of national value chains, inclusive of regional value chains, were identified as a means to create real employment and increase national competitiveness through Government incentives, such as Special Economic Zones. Public stakeholders acknowledged the need for business-friendly reforms and a gradual approach to liberal policy mechanisms to assist in creating that enabling environment and maximising economic impact.





4.2. Private sector stakeholder engagement takeaways

In the process of identifying potential business models to derive and synthesise IOAs, a number of private sector stakeholders were engaged, including investors with stakes/mandates in prioritised sectors, financial institutions and specialised economic experts. Private sector stakeholders highlighted a number of stumbling blocks and echoed public sector acknowledgment of various structural inefficiencies hampering general economic development.

Many private stakeholders bemoaned the shortcomings of the current Public Private Partnership legislative framework, which is curtailing private and public co-investment in particular projects that would invariably deliver high SDG-related impact.

Project preparation finance was identified as a key component in making opportunities for SDG-related projects presentable and bankable for private investment. Private sector stakeholders cite a number of regulatory restrictions, specifically Regulation 13 of the Pension Funds Act, as a major constraint to pension funds investing in a number of SDG-related projects.

Many incentive schemes for private sector involvement have been deemed irrelevant in the current economic landscape by private stakeholders, who state that the majority of these incentive schemes were introduced 20 years ago. The need for accurate, relevant and up-to-date-national and regional data in order to assist with effective decision-making was identified as a cross-cutting theme by many private stakeholders.

5. BOTTLENECKS ACROSS SECTORS



5.1. Infrastructure

In terms of per sector bottlenecks specific to the energy sector and individual IOAs, issues hindering private investment in mini-grids and small-scale embedded generation infrastructure include the limited financial support and subsidy environment which is disproportionately geared towards grid electrification. Long-term availability of subsidies should also be in place as some of these off-grid projects and their structural arrangements will not be able to recover all capital costs from the end user base. From a regulatory perspective, a realistic and flexible off-grid tariff methodology has not been created yet that balances end-user requirements with those of service providers and investors.

In terms of utility-scale infrastructure bottlenecks would include the limit for net metering installations which leave some distribution customers above the 500 kVA installation at a disadvantage. The grid integration and grid stability studies are not well defined or standardized due to lack of coordination between various distribution grid owners and operators.

In terms of real estate, there is a distinct national challenge in delivering housing at affordable rates when taking into consideration land development and delivery costs. The land delivery process in Namibia is not governed by one comprehensive piece of legislation, but by various acts and ordinances which may cause confusion.



5.2. Agriculture

Namibia is a water stressed country which receives minimal rainfall and has limited groundwater resources which needs to be taken into account when undertaking scaled commercial agricultural enterprise. Namibia has lack of cold storage facilities for the purpose of value addition to horticulture produce. The country is also vulnerable to climatic change shocks.

5.3. Services

In terms of logistics in the services sector, although Namibia has substantially increased port capacity in the last few years it still lags considerably in terms of capacity comparably to other SADC ports. There is a need to strengthen or increase cross-border and bi-lateral agreements in place that would allow the strengthening and expansion of concomitant Infrastructure linkages to neighbouring countries.



In terms of tourism the major challenges stem from the fact that current land ownership and tenure property systems in Communal Areas are not conducive to attracting quality investments. Commercial tourism operators aiming to invest in operations based in communal areas face more legislative hurdles compared to investing in operations based in other areas of Namibia. This is due to issues related to the application for obtaining a certificate of leasehold process which varies across different jurisdictions and the fact that leasehold issued in terms of the Communal Land Act cannot be utilised as collateral security to obtain funding from local banks.



5.4. Health

The policy and regulatory bottlenecks identified in the healthcare sector specifically with regards to the bureaucracy involved in having private sector register with the Namibian Medicines Regulatory Council (NMRC). It seems private sector have attempted to provide import substitution solutions for certain essential drugs in the country but the registration process is inefficient and often times counter-productive therefore curtailing any opportunity for scale in the pharmaceutical sector at this stage.

5.5. General bottlenecks

In addition to the sector specific bottlenecks, public and private sector stakeholders expressed overlap-

ping or shared bottlenecks experienced in improving the enabling environment for investment.

These are summarised in the table below.

Public and Private Sector
Public procurement legislation is very static (currently under review for improvements).
Length of time it takes to acquire land for commercial purposes.
The risk averseness of local private investors.
Lack of skills required to meet industrialization demands.
Lack of socio-economic micro data, especially at regional and constituency. This has an impact on gathering market intelligence data.
Project preparation funding for bankable projects (currently being addressed by the recently launched 2nd Harambee Prosperity Plan (HPP2)).

Table 3: General bottlenecks

It is important to highlight that the bottlenecks highlighted in this report have been discussed with relevant parties, including the Namibia Investment Promotion and Development Board, which has com-

mitted to addressing the range of obstacles identified.



6. SECTOR 1: INFRASTRUCTURE

6.1. Why infrastructure?

The Africa SDG Index and Dashboards Report 2019, on SDG 9 (Industry, Innovation and Infrastructure), indicates that Namibia still has “major challenges” in achieving this SDG. However, in terms of addressing this SDG, the report indicates that there is a general trend of “moderately improving” on this front. As part of the Namibian Government’s commitment towards supporting the SDGs more broadly, infrastructure development has been prioritised, with a specific focus on water infrastructure. Namibia’s NDP5

and the Harambee Prosperity Plan (HPP) 2016/17 - 2019/20 both stress the need to increase investment in infrastructure development by the year 2022. The NDP is set to prioritise sustainable investments in infrastructure during the NDP5 period, as it has been noted that the lack of infrastructure results in bottlenecks in economic development. Specific focus areas for the government include energy and water infrastructure development. Priorities for energy include generating capacity and renewable energy, such as solar, wind and biomass.

Furthermore, the Namibian Government has also solidified its commitment towards achieving some of its infrastructure goals by the implementation of the Public-Private Partnership Act 4 of 2017, which came into force on 18 December 2018. This Act aims to address the country's critical infrastructure needs through incentivising participation from the private sector through leveraging off Public-Private Partnerships (PPPs). Additionally, the Namibian Government, through the Government Institutions Pension Fund (GIPF) has also established a dedicated infrastructure fund, called the Namibian Infrastructure Fund (NIF). The fund has specifically been set up to address the country's infrastructure backlogs in the following sectors: energy, water and sanitation, ICT, transport and logistics, health and municipal services.

(includes access to electricity, quality of electricity supply, exposure to unsafe drinking water and reliability of water supply) Namibia scored 68.7 out of 100. However, according to the Africa SDG Index and Dashboards Report 2019, progress by Namibia in achieving Indicator 11.1.1 (Ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums) of SDG 11 (Sustainable Cities and Communities) indicates that the country still has "significant challenges" remaining.

It should, however, be noted that although Namibia lags on certain infrastructure fronts, it has recently been ranked as the African country with the best roads for the fifth consecutive year by the WEF, therefore increasing investment appeal. In terms of quality of



Figure 3: Namibia's progress on SDG 9
Source: SDG Center for Africa and Sustainable Development Solutions Network, 2019

The upgrading of physical infrastructure has been a long-term priority of the Namibian Government, a priority which has previously been highlighted in Namibia's Fourth NDP4. Although the Government has made good progress in addressing some of the country's energy and water infrastructure needs, some critical structural challenges remain.

According to the WEF's Global Competitiveness Index (2019), Namibia's infrastructure performance is ranked 94 out of 114 countries. The Index indicates that between the country's utility and transport infrastructure, Namibia is lagging the most on transport infrastructure, scoring 48.3 out of 100. On this front, performance in terms of railroad density and efficiency of train services is seen to be the weakest. In terms of the country's utility infrastructure

roads in Africa, Namibia remains unchallenged when compared to neighbouring regional countries. On the WEF's rankings Namibia scores 5.2 out of 7, outperforming both South Africa and Rwanda, which were placed at second and third places respectively. When compared at a global level, Namibia was placed at number 23, outperforming economic giants, such as China, India and Italy, which were ranked 42, 46, and 56 respectively. Namibia's success in this domain can be ascribed to its effective maintenance strategy on road infrastructure.

The World Bank estimates that investments in infrastructure can generate economic returns of up to 11% for electricity projects and 29% for road building. This serves to create a strong context for new and enhanced investment, with the Namibian Govern-

ment committing to spend ± N\$ 74 billion, or rather, 42% of its national GDP on infrastructure investment projects over the next five years by making use of public, private and development financing.

Namibia is poised to effectively leverage its geographic advantages and position itself favourably to capitalise on the establishment of the largest free trade area since the development of the World Trade Organization. The AfCFTA agreement aims to eliminate tariffs on most goods, liberalise the trade of services and address obstacles to trade between African countries. The scope of the AfCFTA agreement covers trade in goods, trade in services, investment, intellectual property rights (IPR) and competition policy. The AfCFTA is expected to increase market efficiency and reduce the cost of doing business by offering opportunities for economies of scale. A third of African countries are landlocked, making them reliant on maritime countries for their international trade. Namibia, through the AfCFTA, can expand the Logistics Hub Project to include land-locked African countries that fall under the AfCFTA. This could be done as a joint venture between several African countries to avoid excessive costs.

Critical components to ensure the realisation of the logistics master plan include the logistics hub centre development, upgrading of road and rail infrastructure, a truck-stop development programme, a market promotion programme, as well as an integrated border management programme for the major border posts.

Additionally, in order to fully take advantage of the opportunities that come with being part of the AfCFTA economic bloc, Namibia would need to increase intra-Africa trade, as Namibia's exports to non-SACU and non-SADC tripartite free trade areas account for less than 10% of total exports; diversify exports, as the country's external trade continues to be highly concentrated in a few countries and commodities; and diversify its market, as it is too dependent on the South African economy.

Infrastructure sector SAM multiplier analysis

The economic and social impact of each sector was determined based on Namibia's most recent Social Accounting Matrix (SAM) data (2013). Although the sector and sub-sector specifications are constrained by the structure of the SAM, the framework results from the SAM multiplier analysis provide useful statistics on the sectors that can maximise the developmental outcomes. Table 1 indicates the impact that an increase in final demand will have on GDP, output, and income by sector. In terms of output, GDP and income multiplier growth within the electricity and real estate sub-sectors is likely to generate moderate multipliers, though these could have lasting secondary effects on the economy .

Table 4: Namibia output, GDP and income multipliers

Sector	Output	GDP	Income
C-Commercial agri-developments	1.2000	0.6830	0.6000
C-Traditional agriculture	1.9917	1.3544	1.2269
C-Fishing	1.6332	0.8090	0.6052
C-Other mining	1.8399	0.9423	0.6869
C-Diamond mining	1.1579	0.8825	0.5727
C-Food, beverages, tobacco	1.3438	0.5860	0.4352
C-Textiles and clothing	0.5873	0.2884	0.2045
C-Wood and paper	0.5513	0.2760	0.2151
C-Petroleum	0.0000	0.0000	0.0000
C-Chemicals and pharmaceuticals	0.3432	0.2091	0.1396
C-Rubber and plastic products	0.3123	0.1852	0.1322
C-Metals and minerals	1.5680	0.7664	0.5522
C-Machinery and equipment	0.0562	0.0330	0.0236
C-Diamond processing	2.1541	0.9568	0.6520
C-Electricity	1.4654	0.7138	0.5354
C-Water	2.0768	1.1160	0.8397
C-Construction	2.0116	0.8383	0.5801
C-Transport	1.4329	0.6829	0.5141
C-Communication	2.1088	1.2204	0.8638
C-Finance and insurance	1.9204	1.2558	0.8732
C-Real estate	1.5612	1.1259	0.7206
C-Other private services	2.1035	1.4684	1.2593
C-Health, education, public admin	2.1676	1.3220	1.1108
C-Trade and tourism	2.1036	1.0944	0.8366

Source: Monasa Advisory & Associates; DNA Economics; Six Capitals; 2021. SAM Multiplier Analysis for the Namibia SDG Investor Map study in Namibia.



Gender inequality and infrastructure development

The importance of infrastructure for development and for gender equality and the empowerment of women should not be underestimated and can be demonstrated by its ability to influence the SDGs . A recent joint publication by UNOPS and University of Oxford, entitled Infrastructure: Underpinning Sustainable Development, indicates that infrastructure can positively influence the achievement of 92% of targets across all 17 SDGs. However, the converse is also true about poor infrastructure development projects . Infrastructure development is considered a cross-cutting development theme that has the ability to cut across different sectors and sub-sectors such as energy, transportation, water and sanitation, solid waste, digital communications, education and health .

Given that infrastructure projects are typically linked to large-scale construction projects, gender representation in the construction industry was used as a proxy to gauge gender equality within the infrastructure sector. In terms of gender representation at a sectoral level, Namibia's construction industry is characterised as a male-dominated industry. Overall, the industry employs 45,057 individuals across both sexes, or 6.2% of Namibia's employed population. Of this total, 92% of the construction industry's workforce is represented by males, with only 8% being represented by females .

In Namibia, the formal sector tends to encourage male participation over women, with most women employed in agriculture and domestic services. Fewer women are also employed in the industrial sectors, such as mining and quarrying, utilities and transport, storage, and communication, with less than 1% of the labour force in these sectors accounted for by women .



6.2. Sub-sector priorities: Infrastructure

6.2.1. Electric utilities and power generation

As noted earlier in this document, at a priority sector level, one of the specific focus areas for the government as a national priority sector is infrastructure development, which includes energy infrastructure development. The Africa SDG Index and Dashboards Report 2019, on SDG 7 (Affordable and Clean Energy), indicates that Namibia still has “major challenges” in achieving this SDG and a general downward trend in addressing SDGs, which is currently viewed as “stagnating”. According to the National Household Income and Expenditure Survey of 2015/16, the country has a national electrification rate of approximately 45%. This means that more than half of Namibia’s population does not reap the benefits of having access to electrical energy and that only 42.2% of the population has access to clean fuels and technology for cooking (2016). The data also indicates a “stagnating trend” on this front.

In order to deliver on the objectives of the NDP5 and HPP, and the goals therein regarding energy infrastructure development, Namibia must increase local electricity generating capacity by 350MW by the end of 2022. This issue is to be addressed by increasing the country’s bulk generation and transmission infrastructure to avoid overreliance on imports by 2023. Despite a peak load demand of 684MW by the end of 2018, the country only has an installed grid-connected generation capacity of 548.8MW according to NamPower; 489.3MW of this capacity is owned by NamPower and 59.5 MW is owned by IPPs.

A demand forecast for electricity sales and supply for all of Namibia was prepared as part of the 2016 NIRP, under three scenarios: reference, low and high, and covers the period from 2014 to 2035. The forecast for the reference case estimated that for peak demand, there would be an increase in demand from 646MW in 2016 to 1 329MW in 2035 which, in percentage terms, translates to an annual growth rate of 3.9%. In terms of energy generated, the forecast predicted an increase from 4 241GWh in 2016 to 8 490GWh in 2035, with an average annual growth rate of 3.7%.

Namibia is also still largely reliant on imported electricity from the broader SADC region. Due to Namibia’s high level of dependence on imported electricity,

it is reported that Namibia has the highest electricity prices in Southern Africa. The average bulk electricity tariff 2019/20 for large off-takers (regional electricity suppliers, municipal utilities and industrial customers) is 1.60 N\$/kWh. The actual electricity costs for end-users are considerably higher than the bulk electricity tariff, as there is a surcharge covering additional costs and margins, which the regional electricity suppliers and municipal utilities pass on. Different electricity suppliers also have varying tariff structures, which can differ greatly according to customer groups, consumption levels and type of connection (prepaid or invoice). Additionally, there are seasonal and time-of-day (TOU – time of use) fluctuations in electricity prices to buffer high import costs at peak times. Electricity consumption costs realistically average between 2.20 and 2.60 N\$/kWh for commercial electricity consumers.

Imports continue to account for a large proportion of the electricity requirements in Namibia. According to the ECB’s Electricity Supply Industry Statistical Bulletin 2017/18, of the approximately 4 825GWh sourced in FY 2018, some 3 537GWh (approximately 73% of the total) were brought into the Namibian grid from external sources.

These imports were obtained from several electricity markets, as summarised in table 5.

Supplier	Maximum Supply - MW	Capacity Factor - %	Expiry Date
Eskom (South Africa) – supplementary	200	20	Annual
Eskom – off-peak bilateral	300	100	01/04/2022
ZESCO – Zambia	100	70	31/1/2030
ZPC – Zimbabwe	80	100	31/3/2025
Total	680		

Table 5: Summary of Namibia’s power import sources

Furthermore, in terms of rural electrification and access, a 2015 baseline study reported that electrification coverage in rural parts of Namibia still only stands at approximately 19% . According to the Global Business Network Programme (GBN), compared to regional countries, Namibia’s electrification rate is very low.

Many of Namibia’s unelectrified areas are far away from the grid and are characterised by sparse population densities, highly dispersed settlements, and low-income generating activities, therefore it is often neither technically nor economically justifiable to provide access to modern energy services by means of a conventional grid connection.

The Namibian Government has been committed to supporting and actively promoting rural electrification. Over the past decade, urban electrification has largely been the ambit of Regional Electricity Distributors (REDs) or local authority entities. In rural Namibia, electrification efforts were guided by successive Rural Electricity Distribution Master Plans (REDMPs), which are centred on the provision of electricity delivered by a connection to the national electricity grid.

Namibia’s electricity supply industry (ESI) generally defines “access to electricity” as being provided with grid or grid-equivalent services. However, in view of the rapid emergence of power supply options that offer alternatives to grid electricity, such definitions are no longer considered adequate. Today, a large variety of off-grid power supply options, which have the potential to provide access to electricity, exist.

As such, it is recommended that the focus in these areas should be on mini-grids or small-scale power generation facilities in order to improve access to electricity .

Off-grid electrification is interpreted to mean the provision of electrification services to individual or institutional end-users, using autonomous electricity supply systems in the form of either mini-grids or other standalone electricity supply systems that are not connected to the grid. The term “off-grid” is therefore interpreted as an electricity end-user, supply system or distribution network not connected to the grid, irrespective of their location or proximity to

the grid.

A variety of contemporary technologies, however, allow end-users to be provided with electricity services using standalone electricity generators, or take supplies from a local mini-grid, or be connected to the national network, which adds diversity to how communities or individuals can be supplied with electricity in future.

The provision of off-grid electrification services is not limited to rural areas, and may also be used:

1. In areas where low end-user densities and/or the remoteness from the grid render a grid electricity supply ineffective and/or too costly;
2. where the arrival of the grid is expected to be delayed for an extended period of time;
3. where a lack of land planning prevents the development of grid infrastructure (e.g., in informal areas within local authority jurisdictions); and
4. in other applications where off-grid electricity supplies offer an efficient and effective option to provide access to electricity.

Given Namibia’s high dependence on imported electricity from the broader SADC region (average import value over the past five years varies between 60-70% per annum) and low levels of electrification in rural areas two investment opportunities that will be able to advance progress towards achieving this SDG include small-scale energy access for underserved communities and utility scale solar infrastructure.

Additional sectoral policies that seek to address electric utilities and power generation development needs include:

- National Integrated Resource Plan (2016)
- National Energy Policy (July 2017)
- National Renewable Energy Policy (July 2017)

6.2.1.1. Priority sub-region: Electric utilities and power generation

As set out in Table 3, the Namibian Government has identified a number of potential regions where investment opportunities exist for the electric utilities and power generation sub-sector in terms of large-scale power generation .



#	Region	Prioritised development of electric utilities and power generation	Focus area	Comments
1	Otjozondjupa	Yes	Power generation (renewables)	Currently houses the Otjozondjupa Solar Park
2	Hardap	Yes	Power generation (renewables)	Houses the first large-scale photovoltaic power plant of its kind in Namibia

Table 3: Relevant sub-region(s) for electric utilities and power generation sub-sectors as set out by the Namibian Embassy

As part of the Government’s list of potential PPP Projects in Namibia, as identified by the MoF and NIDA, the following energy related projects have been identified in the following regions:

Table 4: Candidate electric utilities and power generation PPP projects in Namibia as identified by the MoF and NIDA, Namibia

#	Region	Prioritised development of electric utilities and power generation	Focus area	Project name	Project size
1	Erongo	Yes	Power generation (renewables)	Concentrated Solar Power (CSP) Project (with the potential inclusion of PV)	N\$14 billion

NSA data point indicator: Access to public services	Omusati	Ohangwena	Kavango West	Kavango East	Oshikoto	Zambezi (Prev. Caprivi)	Oshana	Omaheke	Kunene	//Karas	Khomas	Otjozondjupa	Erongo	Hardap
Percentage of households with electricity	12.7	16.7	18.5	30.9	23.5	37.7	35.3	40.5	41.2	77.3	67.6	67.7	83.6	72.1

Table 5: Percentage of households with access to electricity for lighting per region

Based on the NSA data, the regions with the lowest percentage of access to electricity in Namibia are:

1. Omusati
2. Ohangwena
3. Kavango West
4. Kavango East
5. Kunene
6. Omaheke
7. Oshikoto
8. Zambezi

Below 50% of the populations in all of the indicated regions have access to electricity for lighting, which is a good indicator of overall access to electricity, as most homes in rural areas use gas or wood for cooking – regardless of whether they have access to electricity or not.

Although the above-mentioned regions have not been prioritised by the Embassy of Namibia’s Investment Catalogue and the Government’s list of potential PPPs identified by the MoF, this gap does, however, present investment opportunities for gov-

ernment and other impact investors to target investments in regions where this development need is yet to be addressed. Furthermore, given the great distances and sparsely populated countryside, connecting rural communities to the national power grid makes very little technical or economic sense in large parts of the country. As such investment in mini-grids or small-scale power generation facilities for the Omusati, Ohangwena, Kavango East, Kavango West, Kunene, Omaheke, Oshikoto and Zambezi regions would make more sense in order to improve access to electricity .

The three priority regions for the electric utilities and power generation sub-sector as per the Embassy of Namibia’s Investment Catalogue and the Government’s list of potential PPPs identified by the MoF would include: Hardap, Erongo and Otjozondjupa. Given that the southern parts of the country, where Hardap is located, can experience up to 11 hours of sunshine per day and at times record direct solar radiation of 3 000 kWh/m2/year, Hardap would serve as a prime location . Given the region’s high levels of solar availability, utility-scale solar infrastructure investment in this region is most attractive.



Electric utilities and power generation: investment opportunity areas

Two IOAs have been identified for the electric utilities and power generation sub-sector, which are all geared towards ensuring investment into critical

power generation infrastructure in regions that have the lowest level or quality of access to these types of facilities. Each IOA’s business model type and a description of the different business models have also been set out in table 6.

Investment opportunity areas	Business model type	Business model description
Mini-grids and small-scale power embedded generation facilities	<ul style="list-style-type: none"> <input type="checkbox"/> Product <input type="checkbox"/> Service <input type="checkbox"/> Infrastructure <input type="checkbox"/> Technology <input type="checkbox"/> Financing 	<ul style="list-style-type: none"> > Ground- or roof-mounted PV system bundling for household or business use with standardised Power Purchase Agreements (PPAs). > Invest in small-scale off-grid/hybrid renewable energy infrastructure that provides access to rural/underserved communities, including imbedded generation.
Utility scale solar infrastructure		<ul style="list-style-type: none"> > Large-scale solar power plants for local power generation > Power supply to industrial consumers through MSB

The Namibian electricity market has already evolved to offer greater competition and opportunities for choice (at the generation level), via the introduction of IPPs, captive power generation and net-metering. Over time, efficient competitive markets are believed to produce the most efficient outcomes i.e., by offering supply choice, providing lower costs and by re-allocating the risk of investment back to the investor (and away from the consumer).

Table 6: Electric utilities and power generation: IOAs

The single most fundamental change in the MSB trading arrangements is to allow bilateral transactions from eligible sellers to contestable customers. The implementation of the MSB will be conducted as per Phase 1a of the plan.



Table 7: Phase 1a Key data

Date	September 2019 – June 2021
Contestability	NamPower transmission-connected customers
Contestable purchases	30% of total energy purchases
Eligible sellers	Licensed IPP, exports

The fact that IPPs can sell directly to customers, coupled with the ability to self-dispatch, effectively addresses some of the main concerns with the SB market model i.e. that the utility has a monopoly hold over new generation capacity and sales to customers, as well as that the utility has a conflict of interest when acting as both a generator and sole off-taker of power.

The MSB model gives generators and customers the opportunity to ‘bypass’ the SB by transacting directly.

Eligible sellers will be allowed to sell power to multiple contestable customers on a “Willing buyer/ Willing seller” basis. The volume of contestable purchases in Phase 1a is set at 30% of total customer purchases.

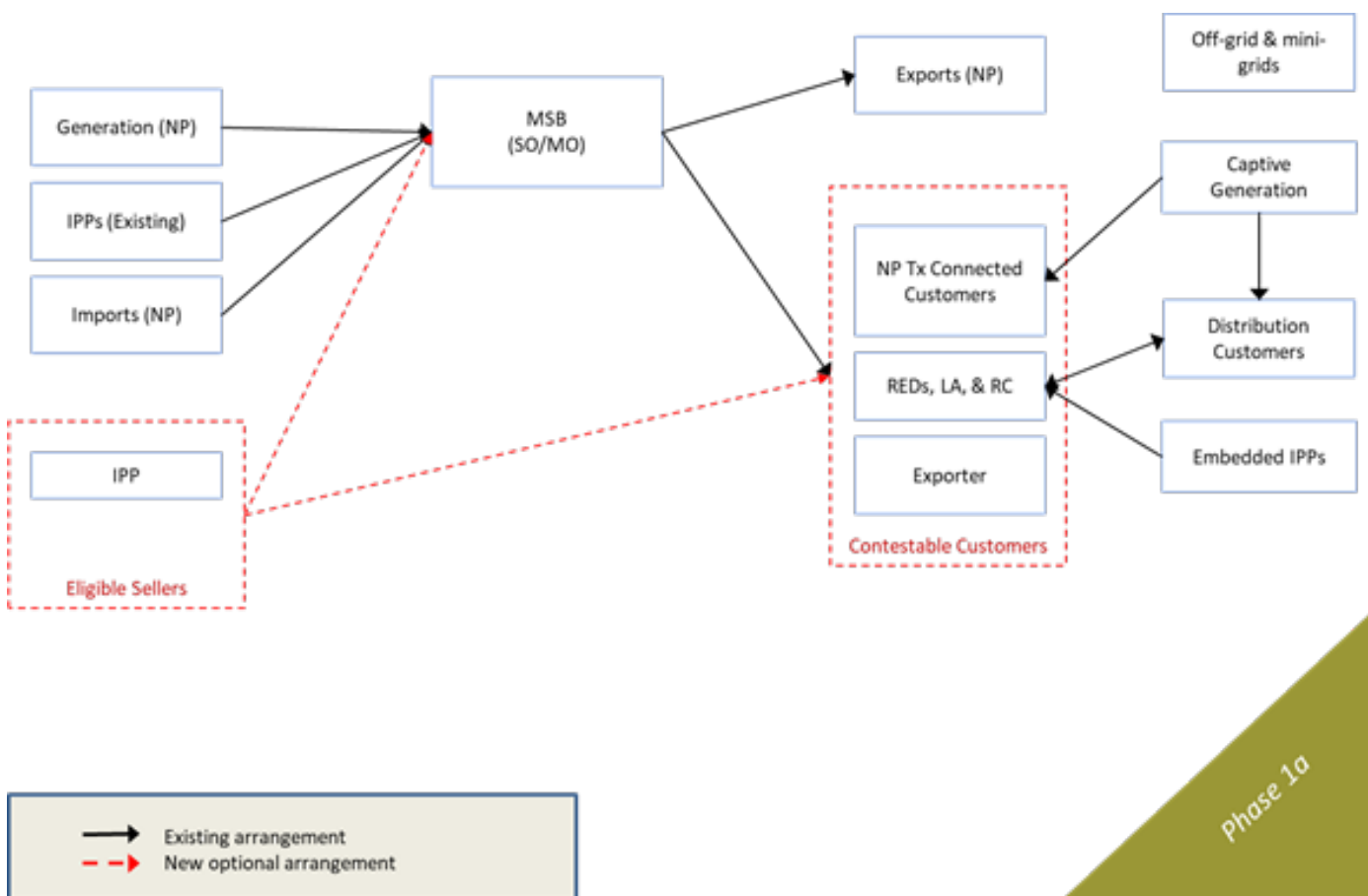


Figure 4: MSB Phase 1a trading arrangements

Therefore, by allowing bilateral trading in the MSB, mining consumers have the option to purchase electricity from a potentially more competitive supplier. This will support affordability by increasing competition and innovation in the supply of energy.

The purpose of the MSB, which was developed by the ECB and approved by Cabinet in April 2019, is to direct the expansion of electricity supply such that competition in the electricity generation value chain drives prices down.

In Phase 1a it is also recommended that the trading arrangements are extended to allow for electricity exports (see figure 4). As exports do not directly impact on Namibian consumers, the majority of the issues to be addressed pertain to technical rather than

financial impacts on existing licensees. Traditionally, Namibia has been seen as an importer of power. However due to a number of factors, including:

- Excellent renewable energy resources,
- and a stable economy and a favourable political environment,

real opportunities exist to export renewable energy to customers in the region. Platforms available include the Southern Africa Power Pool (SAPP) market or private customers via bilateral supply agreements.

The current list of contestable transmission customers and allowable contestable quantity (MW) including those who have already been successfully registered with the ECB are as follows:

Transmission Contestable Customer (Registered Contestable Customer*)	Solar PV (MW) Capacity Equivalent		
	MW	Licensed	Available
Cenored (Pty) Ltd*	30	6	24
City of Windhoek	134		134
Elizabeth Bay Mine	1		1
Erongo RED (Pty) Ltd*	76	3	72
Gobabis Town Council	4		4
Keetmanshoop Municipality*	5		5
Lüderitz Town Council	3		3
Mariental Town Council*	4	1	3
Navachab Gold Mine	8		8
Nored (Pty) Ltd	63	15	48
Ohorongo Cement	6	6	
Okahandja Town Council*	7		7
Oranjemund Town Council	4		4
Orano Mining Namibia*	6		6
Oshakati Premier Electric	10	5	5
Rehoboth Town Council	5		5
Rosh Pinah Zinc Mine	7		7
Rossing Uranium	24		24
Swakop Uranium*	29	12	17
Tsumeb Smelter	26		26
Whale Rock Cement*	2		2
TOTAL (MW)	454	48	406
Registered as Contestable customers			
*Distribution Connected embedded Customers			

Table 8: Registered contestable customers

Additionally, NamPower, the national power utility, aims to procure 70MW new capacity from IPPs through competitive procurement, comprising 20 MW of Solar PV and 50MW of wind. This is in line with the 2016 NIRP for the electricity supply industry and the national generation goals highlighted therein. NamPower aims to contribute to these goals by adding 150MW new generation capacity, comprising 40MW of biomass, 20MW of solar PV, 40MW of wind and 50MW of firm power.

The NIRP calls for power plant capacities to be expanded to 1 677MW by 2035. The stipulated power generation capacities must consist of roughly equal proportions of renewable energies and fossil thermal power plants.

The outlook for power generation in Namibia has changed dramatically over the past ten years. For many years, Namibia's power generation options were restricted given the country's limited thermal and hydro resources. However, the significant decline in the cost of wind and solar PV generation, combined with Namibia's high levels of solar irradiation and consistent wind profiles, have opened new and exciting opportunities for the country. Namibia has also carefully and deliberately developed a stable political environment, good infrastructure and sound legal and regulatory frameworks since independence.

These factors have created a favourable climate for the development of renewable options that are able to compete with more traditional energy forms. Most experts agree that the cost of wind and solar PV generation will decline further in the coming years, increasing the chance that Namibia would be able to develop and export low-cost renewable energy. In fact, by allowing and encouraging electricity exports, developers will be able to develop bigger projects, which will decrease the cost of production through economies of scale.



Gender inequality and electric utilities and power generation

Research has indicated that in the majority of households, women are the primary energy managers. However, the data also shows that women and girls generally receive access to sustainable modern energy infrastructure and technology last, even if it is vital for relieving their disproportionate share of unpaid care and domestic work and enhancing their economic opportunities. This situation is obscured by the lack of sex-disaggregated data and gender statistics. Gender statistics on energy access are almost never available at any level. This lack of high-quality data and, more precisely, lack of sex-disaggregated data and gender statistics often hampers advances in projects in the gender energy nexus .

As noted above, there is a severe lack of sex-disaggregated data and gender statistics within the energy sector, and this also is true for Namibia. Limited gender data, however, was available on Namibia's workforce who are employed within the electricity, gas, steam and air condition industry. In terms of gender representation at a sectoral level Namibia's electricity, gas, steam and air condition industry is characterised as a male-dominated industry. Overall, the industry employs 3 278 individuals across both sexes, or 0.5% of Namibia's employed population. Of this total, 76% of the industry's workforce is represented by males, with only 24% being represented by females .





6.2.2. Real estate

The housing sector is a major contributor to the Namibian economy, and does not only have a financial impact on the economy, but also a social, political and environmental impact on Namibian society. Furthermore, it has the ability to play a crucial role in addressing poverty, given its role as one of the key enablers of socioeconomic growth – hence the emphasis on housing by the Namibian Government. From a policy perspective, the government has prioritised improvements in the housing sector through a number of recommendations set out in its National Housing Policy. The National Housing Policy pledges that all Namibians have the right to have access to housing, land and services and sets out government’s responsibility towards creating a conducive housing market. It is noted that many of the issues set out in this policy document are still applicable today.

According to the Africa SDG Index and Dashboards Report 2019, it is noted that “major challenges” still remain in addressing the proportion of Namibia’s urban population living in informal housing settlements or slums. Unfortunately, due to a lack of available information, Namibia is currently unable to track its progress towards achieving this SDG.

At present, there are two mainstream housing programmes; namely the Build Together (BTP) and the Mass Housing Development (MHD) programmes. The BTP is delivered through the Ministry of Urban and Rural Development, while the MHD programme is implemented through the National Housing Enterprise (NHE), an SOE responsible for housing delivery and financing.

The Build Together Programme: The BTP is a self-help programme that was initiated to provide heavily subsidised housing finance to the low- and ultra-low income of Namibia. This programme was launched in the 1992/1993 financial year. The BTP covers four (4) sub-programmes; namely the urban/ rural housing loans sub-programme, the social housing sub-programme, the single-quarters transformation sub-programme and the informal settlement upgrading sub-programme.

The aim of BTP is to facilitate housing finance to low-income families and middle-income families who do not have access to credit from banks, building societies and housing delivery by the NHE. The funding can be used for building a new house or upgrading an existing house with services like water connection. The target gross income band is N\$1 000 to N\$3 000 per month. The BTP is also implemented through regional BTPs. However, the regional BTPs were dormant for some years due to a number of challenges, but have since been revived.

The Mass Housing Development Programme: The MHD is a N\$45 billion project targeting to build 185 000 houses by 2030. The role of the NHE is to allocate and sell all houses constructed. However, the NHE admits that over the past five years, it has not been able to meet its national targets due to operational challenges. By January 2017, the NHE had allocated approximately 1 500 houses to beneficiaries. The NHE is mandated to deliver 5 000 houses by the year 2023.

The NHE targets individuals earning between N\$3 000 and N\$30 000. The limit for household income is N\$50 000 per month. While the BTP focuses on people with incomes under N\$3 000 per month, the NHE only provides products to people whose incomes are over N\$3 000 a month.

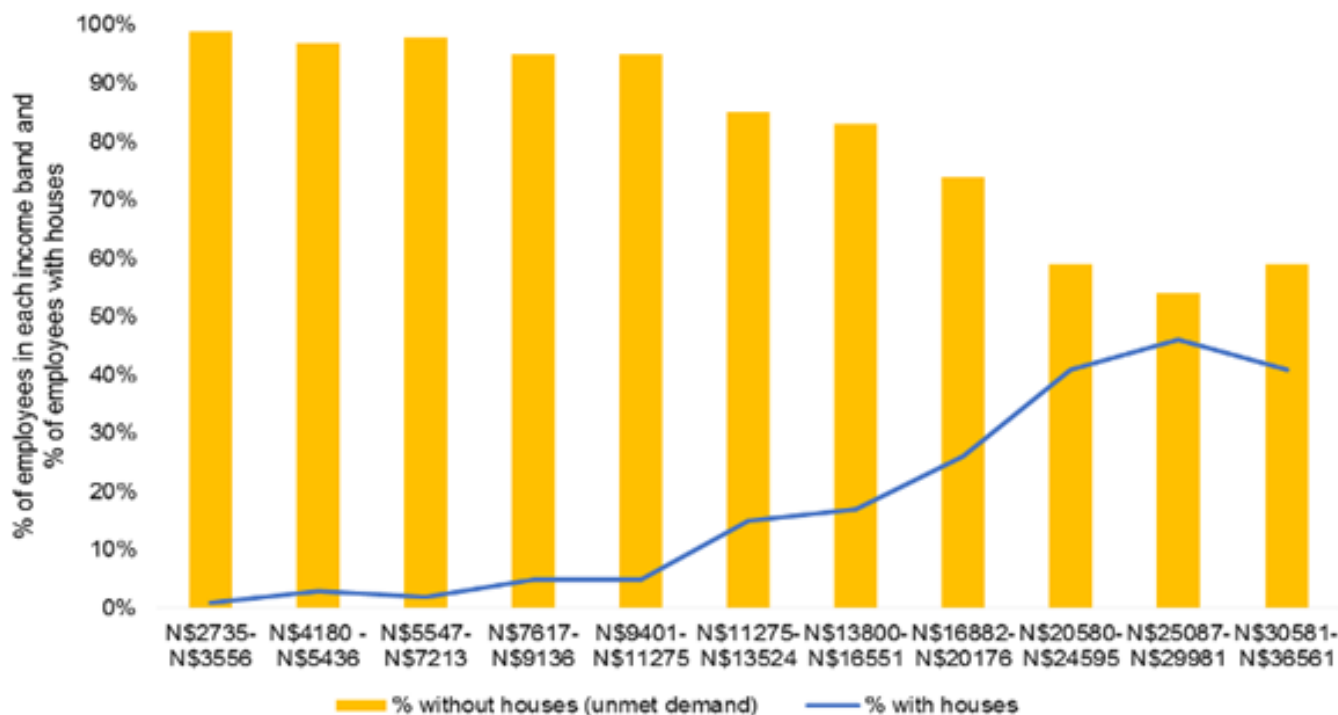
Given the extent of housing backlog and challenges affecting government housing programmes, it is imperative that the private sector also steps up to address the country’s housing challenges. In NDP5, the government has flagged this sector as “a major development challenge”.

A report by the Centre for Affordable Housing Finance in Africa (CAHF) shows that as at 2016, more than 40% of the urban population lives in slums, and this number has been increasing since 2010 (CAHF, 2019). In addition, the current national housing backlog is estimated at over 100 000 and is likely to grow up to between 160 000 to 300 000 by 2030 (IPPR, 2018). Of the current backlog, half of it is in Windhoek, the capital city situated in the Central Region of Namibia. The demand for housing in urban areas, notably Windhoek, is likely to continue increasing as urbanisation continues to accelerate. According to the CAHF, an estimated 74% of urban households can afford the cheapest newly built house by a private developer, given current mortgage financ-

ing arrangements (CAHF, 2019). The cheapest price was estimated at USD19 111, which is equivalent to about N\$325 000 at an exchange rate of 1:17 (CAHF, 2019). This implies that there is a potential effective demand for housing mortgage products in the Namibian market for low-middle income earners. The data indicates that around 78% of Namibians are bankable, however, 74% of Namibians are unable to afford conventional housing by means of traditional housing finance, such as mortgage finance or bank home loans.

Analysis of access to mortgage finance in Namibia shows that there is a huge portion of bankable employees who currently do not have access to mortgage finance. As indicated above, the estimate shows that 74% of Namibians do not have access to mortgage finance. Figure 5 shows the proportion of government employees with houses and those without houses. The figure shows that those severely affected by lack of access to housing are in the low- and middle-income categories. This category is often referred to as the ‘missing middle’; they do not qualify for the government’s BTP and yet they cannot access the mortgage finance from commercial banks. The missing middle is evident in figure 5, which indicates the percentage of government employees with and without houses across the different monthly salary brackets.

Figure 5: Namibian government employees with and without houses (potential demand)



Private sector housing finance

Currently, housing finance in Namibia is provided through five commercial banks, as well as a non-bank mortgage lender, First Capital Namibia. The five commercial banks are First National Bank of Namibia, Standard Bank of Namibia, Nedbank, Bank BIC and Bank Windhoek. A review of the mortgage finance products offered by each of these banks provides the following insights:

- Banks offer traditional home loan products, flexible options to access savings and prepayments in the home loan facility, first-time buyer home loans above 100% and building loans. FNB also offers a pension-backed home loan.
- Loan terms for mortgage finance

products vary from 20 years to 25 years, with only the Bank of Windhoek offering an extended term for first-time buyers of up to 30 years.

The current mortgage finance products can be categorised into four different segments, namely:

- Small segment: N\$0.5m to N\$1.49m;
- Medium segment: N\$1.5m to N\$3.49m;
- Large segment: N\$3.5m to N\$6.49m; and
- Luxury segment: N\$6.5m and higher.

The distribution of housing units sold in the Khomas region across these categories over the past ten years (2010 - 2020) is depicted in figure 6. The figure shows that the bulk of the mortgage loans issued were in the small house segment.

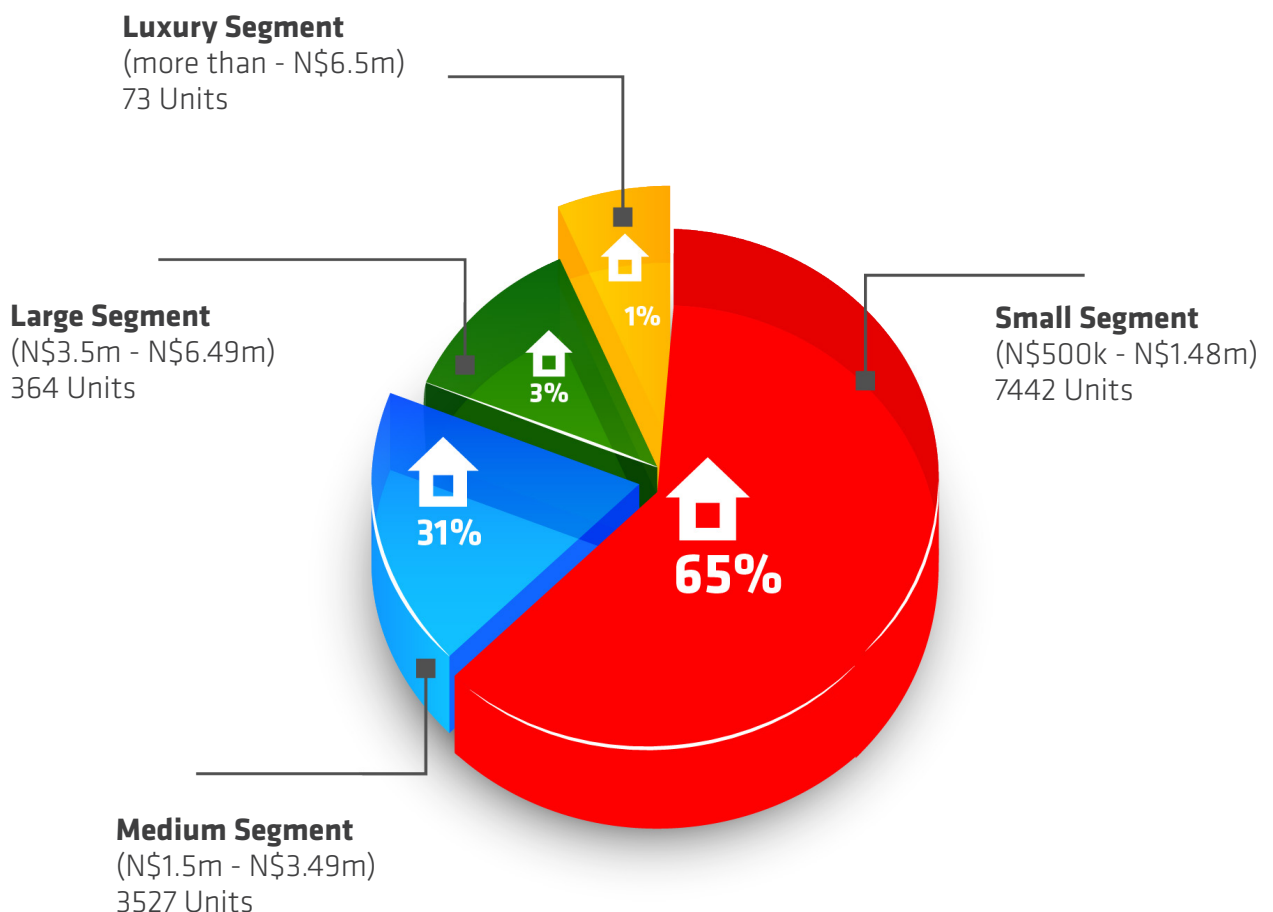


Figure 6: Distribution of mortgage financing across different segments based on transaction data

Source: Monosa Advisory & Associates (2020) disaggregated data from FNB index 2010 - 2020

Some of the key requirements to qualify for a mortgage facility include the following:

- Income and expenditure statement should reflect a surplus of not less than 20% of the monthly home loan instalment, after the deduction of all expenses, including the full home loan instalment;
- Net Income of N\$10 000 or more per month; and
- Monthly repayments may not exceed 30% of the gross monthly income (individual or combined).

Based on the current requirements from banks, the minimum monthly gross income to qualify for mortgage finance is approximately N\$15 000. However, when we use the actual transaction data, which shows a minimum mortgage amount around N\$700 000, it implies that the qualifying gross salary for a 100% mortgage should be more than N\$22 000. Comparing these minimum gross monthly income requirements against the results of the recent Labour Force Survey, it implies that the current mortgage products by commercial banks cover less than 14% of all the persons currently employed.

Additional sectoral challenges noted by the Namibian Government and numerous private sector stakeholders interviewed during this research project, is the slow pace at which the necessary legal instruments are implemented; the slow execution of housing

projects by local authorities; and the critical shortage in the supply of housing, which has resulted in unattainable property prices for the average Namibian citizen. Housing developments locally have also largely been uncoordinated in their efforts and there is currently a lack of a unified housing database for Namibia, which makes the collection of accurate information challenging. In a bid to address the objectives of NDP5, the Namibian Government has pledged to reduce the number of households that are living in improvised or informal houses from 19% in 2016 to 12% by 2021/22; service 6 500 erven by 2021/22; and have 7 200 new houses constructed nationwide. It aims to do this through developing PPPs to address land servicing and infrastructure construction.

Under the HPP, the Namibian Government has identified housing and sanitation as a sub-pillar that will be receiving attention over the lifespan of the plan.

The plan sets out to construct 20 000 new housing units and service 26 000 residential erven. According to the Progress Report, the government is making good progress towards addressing these goals and indicates a 57% attainment rate over the reporting period.

Although there has been considerable development in addressing the housing crisis in Namibia, recent reports have indicated that the country is still facing a housing backlog of around 300 000 housing units, which will require an estimated N\$76 billion for land servicing and housing construction.



Gender inequality and housing

As noted in the sections above, generally speaking, Namibia is facing a massive housing crisis that needs to be resolved urgently.

Gender-related data indicates that in rural areas, more than three quarters of female-headed households (75.%) reside in traditional dwellings, compared to 58.5% of male-headed households. Furthermore, the data indicates that there is a slightly higher number of male-headed households (30.4%) that reside in improvised housing units in urban areas, compared to 28.5% of female-headed households. In terms of gender composition within the real estate sector, fe-

males dominate the sector, representing 61% of Namibia's employed persons, whereas male representation is less than 40%.

6.2.2.1. Priority sub-region: Real estate

As sets out in table 9, the Namibian Government has identified four regions where investment opportunities exist for the real estate sub-sector; namely Khomas, Erongo, Omaheke and Otjozondjupa . In most cases, more than a quarter of each of these regions' populations (32.6%, 33%, 39.8, 21.5% respectively) live in improvised housing.

#	Region	Prioritised development of real Estate	Focus area	Comments
1	Khomas	Yes	Low-cost housing	The current focus area for this region is low-cost housing, as the region is home to Namibia's largest population, specifically concentrated in the city of Windhoek.
2	Erongo	Yes	Low-cost housing	Second-largest number of households, with 33% of those living in improvised housing
3	Omaheke	Yes	Low-cost housing	Highest percentage of improvised housing in the country at 39.8%
4	Otjozondjupa	Yes	Low-cost	Improved housing stands at 21.5% of households, with an increasing urbanisation annual growth rate

Table 9: Relevant sub-region(s) for real estate sub-sector as set out by the Namibian Embassy

Table 10 highlights the regions that have the lowest levels of quality housing. Based on the data points in table 10, the top three regions with the lowest qual-

ity of housing, based on the SHDI sub-indicators are: Ohangwena, Kavango and Omusati.

SHDI datapoint - indicator: Quality of housing	Zambezi (Prev. Caprivi)	Erongo	Hardap	//Karas	Khomas	Kunene	Ohangwena	Kavango	Omaheke	Omusati	Oshana	Oshikoto	Otjozondjupa
Percentage of households with flush toilet	13.3	78.0	62.3	63.8	81.7	32.8	7.33	10.6	38.9	6.15	30.5	22.6	53.6
Percentage of households with a natural floor (earth, sand, dung etc.)	71.3	13.9	19.3	21.5	19.3	41.3	71.6	78.4	28.8	50.0	35.0	58.1	19.8
Percentage of households with three or more sleeping rooms	16.1	24.5	34.6	30.0	39.3	22.4	64.0	56.9	24.4	71.7	50.8	56.6	26.4
Percentage of households cooking on wood, straw, grass, dung etc.	85.2	17.9	38.7	29.6	6.04	72.5	85.8	87.6	75.2	93.5	53.2	77.7	51.0

Table 10 SHDI datapoint - indicator: Quality of housing across regions

This, however, is contrary to the latest data contained in the Namibia Household Income and Expenditure Survey (NHIES) 2015/2016 Report. This data indicates that Omaheke (39.8%), Erongo (33%) and

Khomas (32%) have the highest number of the population per region living in improvised housing (see figure 7) .

Region	Type of dwelling, %											Total	
	Detached house	Semi-detached house/ Town house/ house	Apartment	Guest flat	Part commercial/ industrial building	Mobile home (caravan/ tent)	Single quarters	Traditional dwelling	Improvised housing unit	Others	%	Number	
Namibia	30.6	5.8	2.9	2.9	0.5	0.3	3.1	32.9	20.2	0.8	100	544 655	
Urban	41.5	8.8	4.7	4.5	0.2	0.2	5.1	4.6	29.6	0.9	100	294 827	
Rural	17.7	2.2	0.9	1.0	0.9	0.3	0.8	66.3	9.1	0.8	100	249 827	
!Karas	62.4	2.8	5.6	1.5	0.7	0.6	2.0	6.0	18.0	0.3	100	23 567	
Erongo	39.4	9.0	9.2	2.6	0.0	0.0	4.9	1.8	33.0	0.2	100	58 454	
Hardap	63.0	2.7	2.7	3.1	0.0	0.5	0.2	0.4	25.2	2.2	100	20 901	
Kavango East	18.5	0.1	0.2	1.6	0.0	0.5	0.2	72.3	4.4	2.2	100	25 301	
Kavango West	9.1	0.0	0.7	0.2	0.0	0.0	0.9	85.8	3.0	0.2	100	14 518	
Khomas	36.5	12.2	4.9	3.5	0.0	0.2	8.6	0.5	32.6	1.1	100	112 305	
Kunene	25.1	7.4	2.2	1.3	0.4	0.7	0.4	45.9	16.2	0.2	100	21 468	
Ohangwena	19.2	1.6	0.2	3.6	0.5	0.3	1.3	62.1	11.3	0.0	100	48 487	
Omaheke	48.4	3.2	0.2	0.3	0.0	0.5	0.8	6.1	39.8	0.6	100	19 639	
Omusati	3.3	3.4	0.2	3.9	3.0	0.0	0.5	78.6	5.6	1.6	100	53 090	
Oshana	24.2	5.8	2.1	6.7	0.0	0.1	1.3	36.2	23.0	0.6	100	45 331	
Oshikoto	13.8	5.0	2.2	2.2	1.1	0.3	1.6	62.2	10.5	1.1	100	41 411	
Otjozondjupa	56.0	4.9	1.4	2.1	0.7	0.5	3.5	8.6	21.5	0.8	100	38 238	
Zambezi	20.4	0.3	0.0	0.2	0.2	0.8	0.0	77.5	0.6	0.0	100	21 945	

Figure 7: Household dwelling type by region and urban/rural areas
Source: NSA, 2015

As set out in table 12, the regions that have seen the biggest growth in urbanisation rate between 2011 and 2016 have been Hardap, Kavango East, Kavan-

go West, Omaheke and Otjozondjupa, which have all seen increases of 10% or more .

Real estate	Zambezi (Prev. Caprivi)	Erongo	Hardap	// Karas	Khomas	Kunene	Ohangwena	Kavango	Omaheke	Omusati	Oshana	Oshikoto	Otjozondjupa
Urbanisation rate (2011 - 2016)	Data not disclosed	87% (2011) - 92% (2016)	60% (2011) - 72% (2016)	Data not disclosed	95% (2011) - 95% (2016)	Data not disclosed	Data not disclosed	East: 46% (2011) - 57% (2016) West: 1% (2011) - 12% (2016)	30% (2011) - 42% (2016)	Data not disclosed	Data not disclosed	Data not disclosed	54% (2011) - 66% (2016)

Table 11: Urbanisation rate - percentage of the regional population

Included in the Namibian Government's list of potential PPP projects in Namibia, as identified by the MoF

and NIDA, the following real estate-related project has been identified in the following region:

#	Region	Prioritised development of real estate	Focus area	Project name	Project size
1	Khomas	Yes	Affordable housing	Affordable housing project	N\$ 350 - N\$ 450 million

Table 12: Candidate real estate PPP projects in Namibia as identified by the MoF and NIDA, Namibia

Taking into consideration the average housing prices in the various regions of Namibia over the period 2015-2019 (see figure 8), it is worth noting that the housing prices in central Namibia (Khomas) have

been priced well above the rest of the regions and the region continues to see an upward trajectory in its average house prices.

Namibia Average Housing Prices (2015-2019)

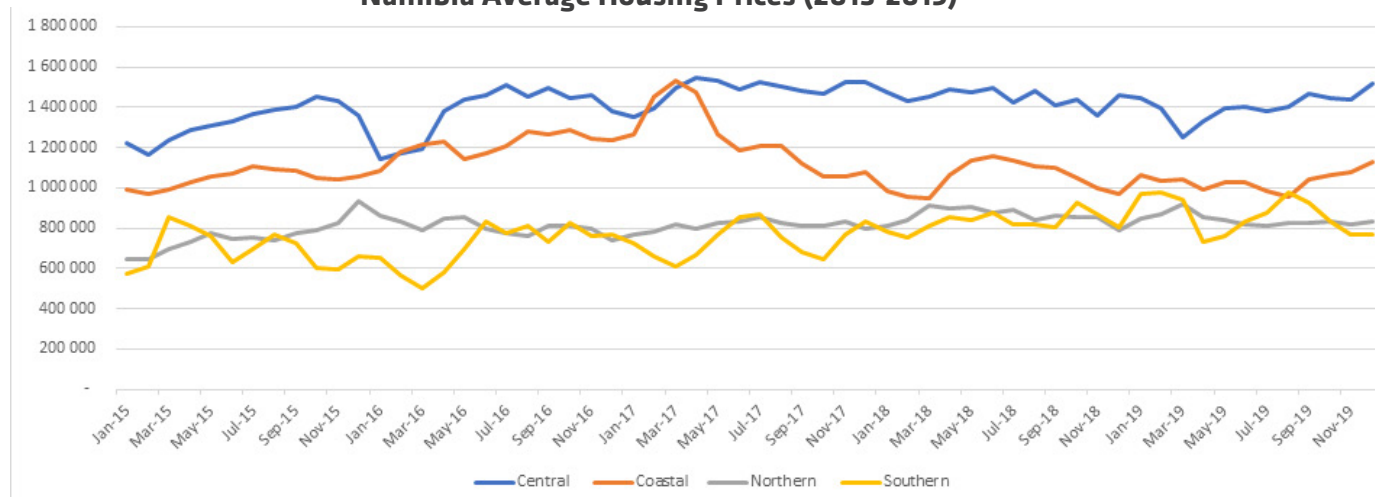


Figure 8: Namibia average housing prices (2015-2019)
Source: FNB Housing Index 2015, 2016, 2017, 2018

According to the latest house price data from the FNB Residential Property Report of June 2020, Namibia's national weighted average house price now stands at N\$ 1 044 956. On average, a house in the central region is now priced at N\$1 253 000 (see table 13). On a 12-month moving average, a house in Windhoek is now priced at N\$1 188 000. On the other hand, Oka-handja and Gobabis saw annual reductions in house prices of 3.7% and 11.5% y/y, settling at N\$764 000 and N\$670 000 respectively at the end of June 2020 .

It is noted that there has been an increased demand for land in the central region of Namibia, which has led to a 12-month average price growth of 14.2% per square metre as at 30 June 2020. This is compared to a contraction of 13.0% y/y recorded over the same

period of 2019. This increase has been ascribed to the high bid prices offered for the purchase of land, largely by private developers. The average house price in the coastal region is now recorded at N\$1 107 000 .

The region with the lowest average house prices is the southern region, which only accounted for 2% of the overall transaction volumes since July 2019. FNB however, is of the view that with the acceleration of land delivery and the decentralisation of training programmes by UNAM and the Namibian Institute of Mining and Technology (NIMT) in the region, the property market in the southern region is well positioned for increased property development in the future .

Table 13: Average house prices per region as at 30 June 2020

Region	Average house prices	Land prices per square metre
Central	N\$1 253 000	N\$957
Coastal	N\$1 107 000	N\$859
Northern	N\$871 000	N\$805
Southern	N\$717 000	N\$523

Source: FNB Housing Index 2020

Due to the diverse regions and the regional data presented, all the data points were collated in Table 14. The table sets out the various data points taken into consideration to determine which regions should be considered as priority regions for housing development initiatives. Based on these data points, the top four regions that should be taken into consideration

as priority regions for this sub-sector include:

1. Khomas
2. Erongo
3. Omaheke
4. Otjozondjupa

Table 14: Real estate sub-sector: all data points

Real estate: all data points	Zambezi (Prev. Caprivi)	Erongo	Hardap	//Karas	Khomas	Kunene	Ohangwena	Kavango	Omaheke	Omusati	Oshana	Oshikoto	Otjozondjupa
Region prioritised by Namibian Embassy											þ		
SHDI data - regions that have the lowest average levels of quality housing		þ		þ									þ
NSA - highest number of the population per region living in improvised housing		þ			þ				þ				
Institute for Public Policy Research - regions that have seen the biggest growth in urbanisation rate (2011-2016)			þ					þ	þ				þ
Included in the government's list of potential PPP projects in Namibia					þ								
FBI Housing Index - average housing prices					þ								

Real estate: investment opportunity areas

Two IOAs have been identified for the real estate sub-sector. These are geared towards directing investment to Namibia's critical lack of affordable housing stock in regions that have the greatest need, and have the highest levels of the population re-

sorting to improvised informal housing. These IOAs also seek to provide alternative financing instruments to prospective home buyers who fall short of the mortgage credit extension criteria of a traditional commercial bank. Each IOA's business model type, as well as a description of the different business models, has also been set out in table 15.

Investment opportunity areas	Business model type	Business model description
Affordable housing	<input type="checkbox"/> Product <input type="checkbox"/> Service <input checked="" type="checkbox"/> Infrastructure <input type="checkbox"/> Technology <input type="checkbox"/> Financing	<p>> Invest in the development of affordable housing units at scale to meet the high demand across the country</p> <p>> Example: Ongos Valley Development will see the construction of 28 000 housing units over a 10 to 15-year period. Its focus will be on low- to middle- income housing, with price ranges from N\$330 000 - N\$900 000, comprising of a variety of house types, ranging from flats to section title and single residential 1 to 3-bedroom housing units. The development will be integrated with supporting infrastructure, such as schools, public institutions, clinics, parks and commercial hubs.</p>
Alternative housing finance	<input type="checkbox"/> Product <input type="checkbox"/> Service <input type="checkbox"/> Infrastructure <input type="checkbox"/> Technology <input checked="" type="checkbox"/> Financing	<p>> Provide affordable housing finance to individuals who do not currently qualify for mortgage and have limited credit history with formal banks, but are gainfully employed. Financing is provided on the basis of conditional monthly repayment rates, using certain aspects of banking and non-banking criteria to determine a risk profile.</p> <p>> Example: RTO Namibia (Pty) Ltd instalment of sale model. The objective of the Instalment of Sales Model is to provide housing finance for individuals that have a probability of qualifying for a traditional home loan directly from a bank/ financial institution in the medium term (five years). RTO provides the client with finance to purchase a house immediately, thus assisting marginal customers to become bankable ones in the medium term. This is also coupled with RTO compulsory financial literacy programme. The client repays instalments over a period of five years, at year five, the client converts to a traditional mortgage. The selling price remains fixed from year one, in year five the capital paid from the monthly instalments over the five years is deducted from the selling price. RTO Namibia has registered a N\$2 billion bond programme on the Namibian Stock Exchange (NSX).</p>

Table 15: IOA Business Model Affordable Housing & Alternative Housing Finance

SECTOR:INFRASTRUCTURE

IOA: ELECTRIC UTILITIES AND POWER GENERATION

Business Model

> Large-scale solar power plants for local power generation to large scale (≥ 5 MW) consumers through the Modified Single Buyer Market Model. The consumers enter into a PPA with the Independent power Producer (IPP).

Potential Outcomes

> Increase energy self-sufficiency by reducing dependence on imported energy from the broader SADC region. This will reduce carbon emissions and contribute to the country's short to medium term energy output objectives.

SDG Alignment

> Direct: 7
> Indirect: 8, 9, 12, 13, 10

SDG Indicators

> 7.1.1 Proportion of population with access to electricity
> 7.1.2. Proportion of population with primary reliance on clean fuels and technology
> 7.2.1 Renewable energy share in the total final energy consumption

Development Need

> Renewable energy consumption only represents 26.5% of the country's total final energy consumption levels.
> The Namibian Government's aims to increase the grid-connected renewable energy capacity by 2035 to a total of 669 MW.
> Generation target for photovoltaics is aimed at 149MW in 2035 as per NIRP and has a generation target set for concentrated solar power of 250 MW in 2035.

Priority subregions

> The southern parts of the country, where Hardap is located, can experience up to 11 hours of sunshine per day and at times record direct solar radiation of 3,000 kWh/m²/year.

Users or beneficiaries

> Direct: Large businesses and/or industries
> Indirect: General population: Decentralized power reduces the strain on central electricity transmission networks that are overcapacity, benefiting end-users by reducing shutdown risks. Will also result in decreased price tariffs over time. On the environment: Reduces reliance on non-renewable energy sources.

Market Sizing

> In terms of import substitution, under the goals of Harambee Prosperity Plan 2, the government is to commission 50MW of IPP projects under the MSB programme during the HPPII period (2021-2025).
> The Modified Single Buyer registered contestable customer list has an allowable contestable quantity (MW) of 406 MW available for private sector to engage these contestable customers directly. Additionally, NamPower, the national power utility, aims to procure 70MW new capacity from IPPs through competitive procurement, comprising 20 MW of Solar PV and 50MW of wind.
> The National Integrated Resource Plan, which sets the procurement allocation to supply options to meet the demand and demand growth in Namibia, calls for power plant capacities to be expanded to 1 330 MW by 2035. The stipulated power generation capacities must consist of roughly equal proportions of renewable energies and fossil thermal power plants.

Return Profile

Tariffs are cost reflective and regulated in Namibia. 10-15% IRR

Investment timeframe

Medium to long term: 15 – 20 years.

Financial Environment

A range of general and sector-specific funding solutions and incentives are available to investors, manufacturers, and service companies in the green economy. Local DFI, the Development Bank of Namibia, commercial banks and pension fund managers have and continue to invest in the renewable energy sector in Namibia.

SECTOR:INFRASTRUCTURE

IOA: ELECTRIC UTILITIES AND POWER GENERATION

Regulatory Environment

- > Electricity Control Board: Net Metering Rules: Electricity Act, 2007 .
- > Quality of Supply and Service Standards, 2004
- >The Namibian Transmission Grid Code, 2005
- >The Administrative Electricity Regulations, 2011

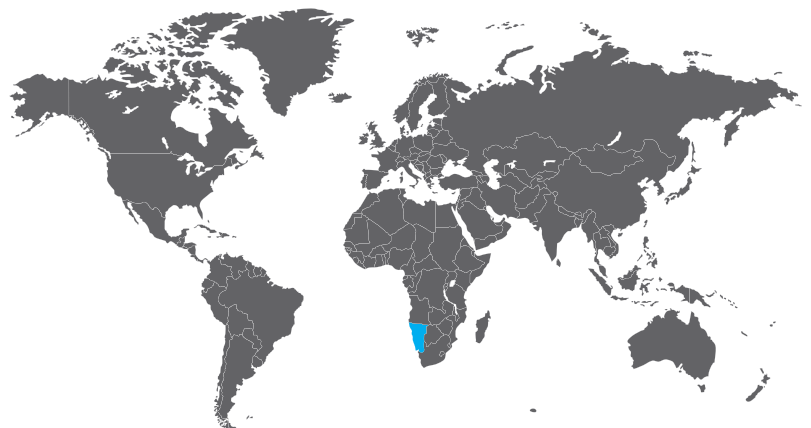
Policy Environment

- > National objective of government is to increase locally produced electricity and reducing amount of imported electricity.
- > The following policies and regulations also support and enhance small-scale off-grid generation:
 - >>National Energy Policy, 2017
 - >>Independent Power Producer Policy, 2019
 - >>Modified Single Buyer Market Framework
 - >> National Integrated Resource Plan, 2016
 - >>National Renewable Energy Policy, 2017

Partner Environment

Investors: Old Mutual Investment Group Namibia, EOS Capital, Ino-Harith Capital, Mergence Investment Managers, Ariya Bridge Capital, Power Africa, Development Bank of Namibia, RMB Namibia, Bank Windhoek, Nedbank

Public: Environment Investment Fund of Namibia



SECTOR:INFRASTRUCTURE

IOA: GREEN HYDROGEN INFRASTRUCTURE

Business Model

Green hydrogen is viewed by the Namibian government as a growing market opportunity with the potential to boost national and regional economic growth. As a result, the government is currently concentrating on fostering public-private partnerships in order to encourage domestic green hydrogen development.

Potential Outcomes

>Namibia can decarbonize its economy, boost its industrial sector, and create national and regional jobs thanks to green hydrogen's numerous applications. Clean power and green hydrogen can be used to diversify the economy by developing new businesses like domestic steel manufacture and zinc processing as additional renewable energy generation comes online.

>Namibia is one of the world's driest countries, and readily available solar and wind resources could be used to power desalination centers.
>Namibia is concentrating its efforts on forming regional partnerships that will aid in the conversion of a possible excess of solar and wind energy into enhanced energy access in the region.

SDG Alignment

Direct: 7, 9
Indirect: 1, 8, 12, 13

SDG Indicators

7.1 Proportion of population with access to electricity
7.2 Proportion of population with primary reliance on clean fuels and technology
7.2.1 Renewable energy share in the total final energy consumption
8.2.1 Annual growth rate of real GDP per employed person
9.4.1 CO2 emission per unit of value added

Development Need

>Namibia has experienced contracted economic growth over the past four years exacerbated by droughts (water scarcity) and negative shifts in commodity prices.
>Namibia's recovery programme aims to generate new and diversified frontiers of growth and will optimize the stewardship of its natural resources, while proactively pursuing opportunities in green economies.

Priority subregions

//Karas, Hardap, Erongo and Kunene regions

Users or beneficiaries

Private citizens, businesses, higher education institutions and the environment.

Market Sizing

-Wind Resource: Wind Speed Over 8m/s and Gross SCF Over 60%
-Solar Resource: DNIover2400kw/m2/year and Gross WCF Over 30%
-Access to Port land and for industrial park (desalination, air separation units, etc.)
-All of Government support to ensure generation capacity of 100 MW electrolyser by 2024
Estimate Project Cost: US\$ 720 mill (500 MW electrolyzes)

Return Profile

Medium to high returns

Investment timeframe

Medium to long term

Financial Environment

Germany has invested USD46 million in Namibia's green hydrogen development. Namibia is relying on ESG-oriented capital flows and sustainable finance to help renewables projects gain traction. According to the Minister of Finance, Ipumbu Shiimi "For the first time, we are seeing capital flowing into projects that support carbon neutrality. We also want to tap into this market and use green bonds to develop supporting infrastructure to assist these businesses.

SECTOR:INFRASTRUCTURE

IOA: GREEN HYDROGEN INFRASTRUCTURE

Regulatory Environment

- > Electricity Control Board: Net Metering Rules: Electricity Act, 2007 .
- > Quality of Supply and Service Standards, 2004
- >The Namibian Transmission Grid Code, 2005
- >The Administrative Electricity Regulations, 2011

Policy Environment

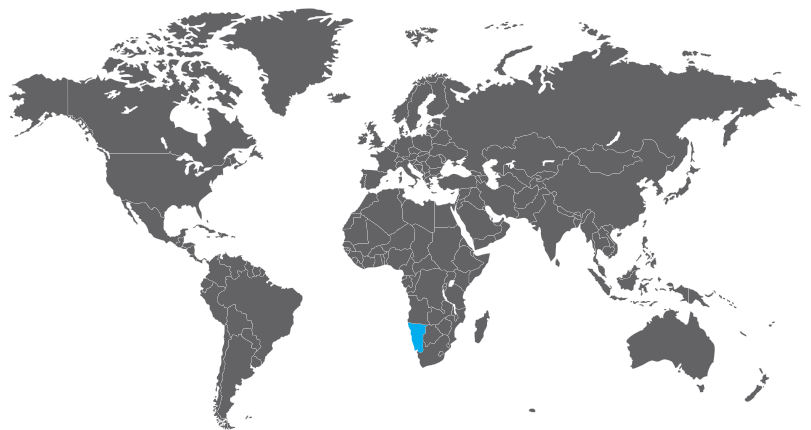
- >Harambee Prosperity Plan 2021-2025
- >National Energy Policy, 2017
- >Independent Power Producer Policy, 2019
- >Modified Single Buyer Market Framework
- > National Integrated Resource Plan, 2016
- >National Renewable Energy Policy, 2017

Partner Environment

The Green Hydrogen Council, which was recently established by the Namibian government, will work to ensure that financing is translated into meaningful project development that supports critical national goals.

Obstacles to Scale

Technology: Inadequate scientific knowledge and expertise in the developing world to embrace the new technology.



SECTOR:INFRASTRUCTURE

IOA: AFFORDABLE HOUSING

Business Model

Develop low to middle income housing units for urban areas at scale, targeting Government employees and private sector workforce.

Potential Outcomes

Provide affordable housing to underserved communities in urban areas of Namibia, offering safe and conducive living environments.

SDG Alignment

> Direct: 1 & 11
> Indirect: 3, 4, 6, 9

SDG Indicators

> 11.1.1: Proportion of urban population living in slums, informal settlements or inadequate housing.
> 1.4.1: Proportion of population living in households with access to basic services
> 1.4.2: Proportion of total adult population with secure tenure rights to land, (a) with legally recognized documentation, and (b) who perceive their rights to land as secure, by sex and type of tenure

Development Need

>Despite the fact that almost 78% of the Namibian population is banked, access to housing finance remains constrained. It is estimated that more than 73% of Namibian households do not have access to and cannot afford conventional home loan facilities offered by the financial market.
>Over 400,000 Namibians live in shacks in 113 informal settlements in the country, and the rural-urban migration adds to this number.

Priority subregions

The regions identified with the highest development need for affordable housing are: Khomas, Erongo, Omaheke and Otjozondjupa regions.

Users or beneficiaries

> Direct: Employed individuals unable to purchase homes in the existing market due to high prices caused by supply constraints
> Indirect: Households living in improvised housing units. More than 20% of Namibia's population reported living in improvised housing units and more than 30% still live in traditional dwellings.
> Indirect: Healthcare system: Reduced strain on the health system due to improved management of epidemics and communicable - and non-communicable diseases.

Market Sizing

> 82,961 government employees qualify for home loan amounts ranging from USD28,285.71 - USD56,571.43 annually, however 63,050 of these employees do not own a home. Using the size of demand for affordable housing for government employees in the low-middle income bracket with qualifying housing subsidies at mortgage qualifying amounts ranging from USD15,714.28 - USD56,571.43, the total investment opportunity is USD3,178 bn.
>Government has outlined in the Harambee Prosperity Plan 2 (HPP2) to deliver 20,000 housing units countrywide by the end of the HPP2 period (2021-2023), through partnerships with public and private sector.

Return Profile

20% - 25% (in IRR)

Investment timeframe

Medium Term (5-10 years)

Financial Environment

> Government employees are provided a certain percentage of housing subsidy in line with their income bracket. For many the subsidy cannot be activated because there is just not enough housing stock available.
> The National Housing Enterprise targets individuals earning between USD214.29 and USD2,148.86 and while the Build Together programme focuses on people with incomes under USD2,148.86 per month.

SECTOR:INFRASTRUCTURE

IOA: AFFORDABLE HOUSING

Regulatory Environment

- >National Housing Development Act, 2000
- >National Building Regulations and Building Standards Act, 1977
- >Local Authorities Act, 1992

Partner Environment

- > Investors: Fund Managers for the Government Institution Fund who have a property/housing mandate for land servicing or top structure development or mortgage financing for civil servants; Development Bank of Namibia ; and local Commercial Banks.
- > NGO: Shack Dwellers Federation of Namibia

Policy Environment

- > The National Housing Policy, which states that the role of government is to facilitate and promote partnership between all relevant public and private parties concerned with the delivery of land, shelter and human settlement development
- > Vision 2030, which aims to provide access to adequate shelter for 60% of the low-income population by the year 2025.
- > Government's Harambee Prosperity Plan 2 (HPP2) has set a target to deliver 20,000 housing units during the period 2021 - 2023 in partnership with private sector.



SECTOR:INFRASTRUCTURE

IOA: ALTERNATIVE HOUSING FINANCE

Business Model

Provide affordable housing finance to individuals who do not currently qualify for mortgage and have limited credit history with formal banks but are gainfully employed. Financing is provided on basis of conditional monthly repayment rates, using certain aspects of banking and non-banking criteria to determine a risk profile.

Potential Outcomes

- >Increased access to formal housing, covering the majority of Namibia's population.
- >Increased balance sheets for large sections of the population, thereby decreasing economic inequality.
- >Increased affordable housing stock and heightened financial inclusion.

SDG Alignment

- > Direct: 1 & 11
- > Indirect: 4, 8, 9 & 10

SDG Indicators

- > 1.4.1 Proportion of population living in households with access to basic services
- > 1.4.2 Proportion of total adult population with secure tenure rights to land, (a) with legally recognized documentation, and (b) who perceive their rights to land as secure, by sex and type of tenure
- > 11.1.1 Proportion of urban population living in slums, informal settlements or inadequate housing

Development Need

> Based on the current requirements from banks, the minimum monthly gross income to qualify for mortgage finance is approximately USD1,071.43. However, when using actual transaction data over the past 10 years, shows a minimum mortgage amount around USD50,000, it implies that the qualifying gross salary for a 100% mortgage should be more than USD1,571 per month. Comparing these minimum gross monthly income requirements against the results of the recent Labour Force Survey (NSA, 2018), it implies that the current mortgage products by commercial banks cover less than 14% of all persons currently employed.

Priority subregions

There are opportunities for investing in alternative financing for access to low-middle cost housing across Namibia specifically in all urban locales.

Users or beneficiaries

Direct: Proportion of individuals that need access to affordable housing
Indirect: Local Authorities and municipalities who aim to delivery formal services.

Market Sizing

>According to the NSA, rental expenditure constitutes the highest expense for households, totaling 70% of all housing expenditure. With 119,217 households Windhoek is a lucrative market worth USD614million spent on housing annually of which rental expenditure stands at USD85.4 million annually.

Return Profile

15% - 20%

Investment timeframe

Medium Term (5-10 years)

Financial Environment

Government employees are provided with housing subsidy in line with their income brackets (but limited housing stock hinders most from activating the subsidy.

Regulatory Environment

Sales of Instalment on Lands Act, 1971
Friendly Societies Act, 1956
Banking Institutions Act, 1998
Usury Act, 1968

SECTOR:INFRASTRUCTURE

IOA: ALTERNATIVE HOUSING FINANCE

Policy Environment

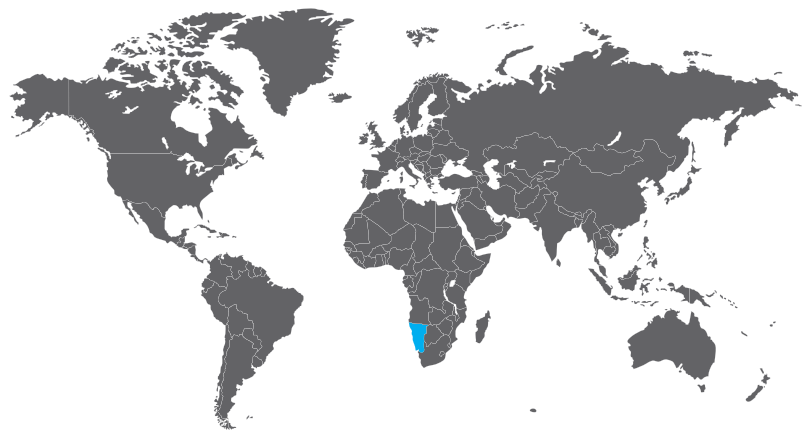
Vision 2030: Identifies the objectives of providing access to adequate shelter for 60% of Namibia's low-income population by the year 2025. The National Housing Policy states that the role of Government is to facilitate and promote partnerships between all relevant public and private parties concerned with the delivery of land, shelter and human settlement development.

Partner Environment

Investors: Government Institution, the Rent-To-Own (RTO) Namibia bond programme registered on the Namibian Stock Exchange
NGO: Shack Dwellers Federation of Namibia

Obstacles to Scale

Limited policy framework guiding public and private players in alternative financing space



SECTOR:INFRASTRUCTURE

IOA: WATER UTILITIES AND SERVICES

Business Model

Establish and operate desalination plants, as localised treatment systems, that draw sea water and treat it to produce desalinated water for bulk sale to industrial users, such as mining companies or resellers as drinking water.

Potential Outcomes

>Provide affordable water to industries, especially mining, and improve sanitation services for end users through localizing treatment systems.
>Reduced water shortage, which has hampered social and economic development in several regions of Namibia.

SDG Alignment

> Direct: 3, 6
> Indirect: 9,14

SDG Indicators

3.9.2 Mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene (exposure to unsafe Water, Sanitation and Hygiene for All (WASH) services).
6.1.1 Proportion of population using safely managed drinking water services.
6.4.2 Level of water stress: freshwater withdrawal as a proportion of available freshwater resources.

Development Need

>Namibia is a water scarce country and growing demand is putting increasing pressure on existing water sources.
>Only 78.8% of Namibia's population has access to basic drinking water services, and only 33.8% of the population has access to basic sanitation services.
>Only 6.3% of anthropogenic wastewater in Namibia receives treatment.

Priority subregions

Erongo, Ohangwena and Omusati

Users or beneficiaries

> Direct: Large businesses and/or industries
> Indirect: General population

Market Sizing

Nationally, large scale water infrastructure projects require an investment of USD 235.7 million (NAD 3.5 billion) in 2019 - 2023. This includes bulk water projects to the value of USD 221.5 million, reclamation projects to the value of USD 32.1 million and rural water projects amounting to USD 7 million, respectively.
Mines in the Erongo Region are projected to have a water demand of 23 million cubic meters by 2030. The Erongo Region's water demand for the communities and mines stands at about 20 million cubic meters per year (5). It is estimated that the mines in the Erongo Region alone could have a projected water demand of over 23 million cubic meters by 2030 (without taking into account any new mine commissions).

Return Profile

15% - 20%

Investment timeframe

Long Term (10+ years)

Financial Environment

Fiscal incentives: There are currently no incentives that specifically target water supply in Namibia. Public-private partnerships can catalyse water desalination investments, and marginal commercial cases can be support by the Government through budget appropriation or concessional loan funding

Regulatory Environment

>Water Resources Management Act 11 (2013)
>Integrated Water Resource Management Plan (2010)
>Additional regulations that impact desalination plants are Environmental Management Act (2007), National Heritage Act (2004), Soil Conservation Act (1969), Marine Resources Act (2000), Aquaculture Act (2002 and Integrated Coastal Management Bill (2014).

SECTOR:INFRASTRUCTURE

IOA: WATER UTILITIES AND SERVICES

Partner Environment

Investors: GIPF fund manager with an infrastructure mandate/fund

Public: Namibia Water Cooperation Ltd., Ministry of Agriculture, Water and Land Reform

Policy Environment

Namibia's water sector is governed by the National Water Policy (2000), and the Water Supply and Sanitation Policy (2008). The National Policy on Coastal Management for Namibia (2013) is also relevant for the construction of desalination plants.

Obstacles to Scale

Market - Highly Regulated: Namibia Water Corporation Ltd (NamWater) maintains a monopoly of supply of water in Namibia, as the Government considers it a strategic resource, which limits the market for the sale of water. Capital - CapEx Intensive: Given that desalination plant projects are capital intensive, investors may need the Government to provide financial support in the form of capital grants - Viability Gap Financing - to make projects that provide water to households financially viable. This is not necessarily the case in scenario where the off-takers is/are industrial customers.





7. SECTOR 2: AGRICULTURE (FOOD AND BEVERAGE)

7.1. Why agriculture (food and beverage)?

The Africa SDG Index and Dashboards Report 2019, on SDG 2 (Zero Hunger), indicates that Namibia still has “major challenges” in achieving this SDG, with a general downward trend in addressing SDGs currently viewed as “stagnating”. Namibia’s progress on SDG 15 (Life on Land) was identified as having “challenges remaining”, but there seems to be some progress despite these challenges. In terms of Namibia’s progress towards achieving SDG 13 (Climate Action), the country is considered to still have “significant challenges remaining” and trends in addressing this SDG is also viewed as “stagnating”.

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Figure 9: Namibia’s progress on SDG 15



Figure 10: Namibia’s progress on SDG 13

Source: SDG Center for Africa and Sustainable Development Solutions Network, 2019

The NDP5 emphasises the need for the Namibian Government to sustain its efforts in growing the country from an exporter of live animals to an exporter of value-added agricultural goods. Although the country's agriculture sector only represents 3-5% (on average) of Namibia's GDP, the agriculture sector continues to remain a strategic sector for the government for a number of reasons. This is because it is one of Namibia's largest employers by sector, and contributed to approximately 167 242 jobs during 2018, with the majority of those within Namibia's rural areas. The percentage of jobs contributed by the agricultural sector translates into 23% of the Namibian population being employed by this sector alone. Furthermore, in terms of Namibia's net exports for 2017/18, the agriculture industry contributed N\$ 5.77 billion worth of exports. Not only does a growing agriculture sector in Namibia contribute to the overall development of the Namibian economy, it also contributes to poverty alleviation and food security.

Nonetheless, gains made in the agriculture sector have seen a decline, particularly in food production, due to the persistent droughts experienced across Namibia, which have left 25% of the population with food insecurity. The decline in gains is further exacerbated by Namibian farmers' lack of access to finance .

The objective by the Namibian Government is to decrease food insecurity in the country from 25% to 12% by 2022. It aims to do this by drastically increasing food production and doubling livestock production by 2022. One of the ways in which the government intends to achieve this is by developing the agro-processing industries through utilising local produce and regional value chains, and increasing the agricultural production for cereals, horticulture and livestock. As such, the government has also committed itself to increasing the country's national food storage capacity.

Agriculture sector SAM multiplier analysis

The economic and social impact of each sector was determined based on Namibia's most recent SAM data (2013). Although the sector and sub-sector specifications are constrained by the structure of the SAM, the framework results from the SAM multiplier analysis provide useful statistics on the sectors that can maximise the developmental outcomes.

Table 16 indicates the impact that an increase in final demand will have on GDP, output and income by sector. Followed by services sectors – such as trade and tourism, health, education and public administration, and communication – the agriculture sub-sectors are likely to generate substantial multipliers on output, GDP, and income. In the agriculture sub-sectors, an increase in final demand of N\$1 million for traditional agriculture is likely to generate an additional output of N\$2 million, GDP of N\$1.4 million and income of N\$1.2 million. To maximise the developmental outcomes from changes in investment, government expenditure and trade, the commodities with the strongest multipliers are the services and traditional agriculture sectors.

Table 16: Namibia output, GDP and income multipliers

Sector	Output	GDP	Income
C-Commercial agri-developments	1.2000	0.6830	0.6000
C-Traditional agriculture	1.9917	1.3544	1.2269
C-Fishing	1.6332	0.8090	0.6052
C-Other mining	1.8399	0.9423	0.6869
C-Diamond mining	1.1579	0.8825	0.5727
C-Food, beverages, tobacco	1.3438	0.5860	0.4352
C-Textiles and clothing	0.5873	0.2884	0.2045
C-Wood and paper	0.5513	0.2760	0.2151
C-Petroleum	0.0000	0.0000	0.0000
C-Chemicals and pharmaceuticals	0.3432	0.2091	0.1396
C-Rubber and plastic products	0.3123	0.1852	0.1322
C-Metals and minerals	1.5680	0.7664	0.5522
C-Machinery and equipment	0.0562	0.0330	0.0236
C-Diamond processing	2.1541	0.9568	0.6520
C-Electricity	1.4654	0.7138	0.5354
C-Water	2.0768	1.1160	0.8397
C-Construction	2.0116	0.8383	0.5801
C-Transport	1.4329	0.6829	0.5141
C-Communication	2.1088	1.2204	0.8638
C-Finance and insurance	1.9204	1.2558	0.8732
C-Real estate	1.5612	1.1259	0.7206
C-Other private services	2.1035	1.4684	1.2593
C-Health, education, public admin	2.1676	1.3220	1.1108
C-Trade and tourism	2.1036	1.0944	0.8366

Source: Monasa Advisory & Associates; DNA Economics; Six Capitals; 2021. SAM Multiplier Analysis for the Namibia SDG Investor Map study in Namibia.

A disaggregation of the income multipliers by household income shows that an increase in final demand for traditional agriculture, as well as services commodities (e.g., other private services, health, education and public administration, and trade and tourism)

will generate the highest impact among low-income households. Looking at figure 11, it is evident that an increase in final demand of N\$1 million for traditional agriculture is likely to generate additional income of N\$0.3 million among low-income households.

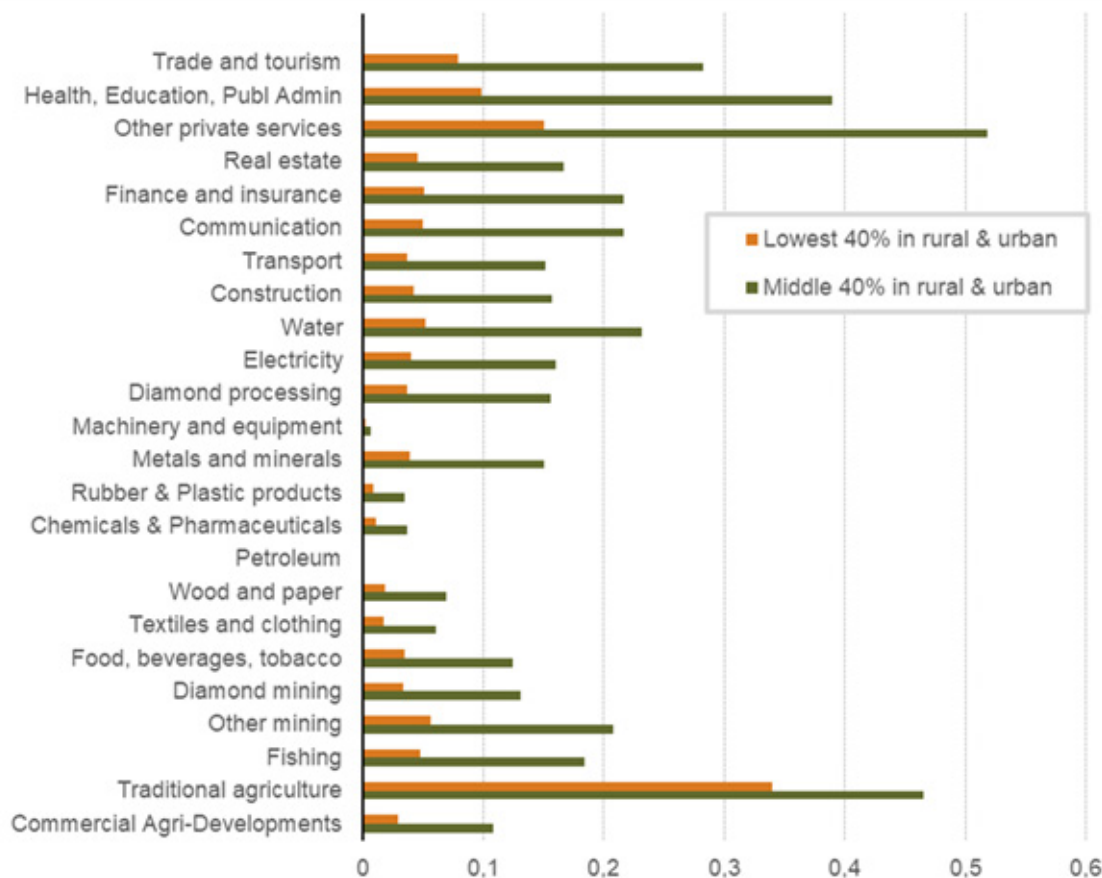


Figure 11: Namibia's SAM multipliers for the lower 40% and middle 40% population, 2013 in millions

Gender inequality and agriculture

The agriculture, forestry, and fishing sectors employed the largest number of Namibians, equal to 163 899 individuals in 2019. In terms of demographic representation, data indicates that 21.2% females and 24.9% males, as a percentage of the working population, are employed in the sector. Although this is a sector that is generally dominated by males, data shows that in Namibia women typically dominate the subsistence and communal farming activities. This trend is generally prevalent in the four 'O regions' of northern Namibia: Ohangwena, Oshana, Omusati and Omaheke.

Africa have a disproportionately negative impact on women, as it impacts women's health, access to education, and potential for empowerment. These effects subsequently have generational effects and can have a significant impact on a country's development trajectory.

In light of recent droughts in Namibia, interventions in the sector, especially in rural areas, must therefore be aware of the gender dynamics, and ensure that women are not further disadvantaged

Subsistence and communal farming are almost solely dependent on annual rainfall for food security. Research has shown that droughts in sub-Saharan

7.2. Sub-sector priorities: Agriculture (food and beverage)

7.2.1. Agro-processing (agricultural products)

Recent data projects the demand for water from the irrigation consumer group to increase exponentially by the year 2030, with groundwater resources not increasing, and these sectors depending heavily on groundwater resources



Consumer group	Demand in Mm ³ /a				
	2008	2015	2020	2025	2030
Urban	66.0	80.0	91.1	103.5	117.2
Rural domestic	10.3	10.6	10.9	11.1	11.4
Livestock	86.8	86.8	86.8	86.8	86.8
Irrigation	135.3	204.6	344.6	379.8	497.2
Mining	16.1	17.2	18.1	19.1	20.3
Tourism	19.6	27.5	31.9	35.2	38.9
Total	334.1	426.7	583.4	365.3	771.7

Table 17: Projected future water demand for Namibia

The NSA defines agro-processing as “a process that transforms raw materials and intermediate products that originates from agriculture, forestry and fisheries sectors” . Practically speaking, this includes the processing of agricultural products, such as livestock, fish and crops. Currently, a very limited number of agro-processed products from Namibia ultimately get exported. The country is a net exporter of unprocessed agro-products, especially from livestock. The agro-processing industry can be broken down into upstream and downstream industries. The Namibian Government’s broader objective is to grow this industry so that more value addition can take place within the borders of Namibia, subsequently creating more employment opportunities and economic growth.

Upstream industries see the processing of raw agricultural materials into preliminary products. The majority of upstream agro-products are derived from livestock in Namibia and include, among others, processed meat (chilled, frozen, dried and canned), milk and dairy products, and leather tanning. Another important upstream agro-processing activity consists of crop production. This includes activities, such as the milling of maize, mahangu and wheat; grinding groundnuts into peanut butter; oil pressing from plant seeds; and juice pressing from fruits. The

downstream industries further the processing of upstream products made from agricultural materials. This is the area that presents one of the greatest opportunities for value addition to take place. This includes activities, such as baking bread and biscuits, cereal and pasta production, textile spinning, paper production, beer brewing, and clothing and footwear manufacturing .

The Namibian Government has made commitments to growing its agro-processing industry, not only at a national level through plans such as the NDP5 and HPP, but at a sectoral level through sectoral policies such as its 2015 Agriculture Policy. This policy outlines key priority areas by the Namibian Government for action with regards to trade. Agro-processing is one of the key sub-sectors of the agriculture sector that has been highlighted in the MIT’s “Growth at Home Strategy”, which is aimed at developing Namibia into an industrialised country that is self-reliant in terms of food production .

Growth of this sub-sector has the opportunity to increase value addition, to create employment opportunities and income generation, as well as export opportunities. This is a crucial sector to develop as Namibia is still heavily reliant on imports and food

products from South Africa and member states from the European Union. Lastly, investment in this sub-sector also offers employment opportunities at a larger scale, as the industry has the ability to create both up- and downstream work opportunities in its value chain .

Common constraints for growth in this sub-sector in its upstream industry include ongoing droughts, low levels of soil productiveness, and high ambient temperatures. Furthermore, the sub-sector is also constrained by high costs of production inputs, a lack of access to finance, as well as low levels of agro-processing training and skills .

7.2.1.1. Priority sub-region: Agro-processing (agricultural products)

The only granular regional level data for the agro-pro-

cessing sub-sector publicly available stems from the Population and Housing Census, which was conducted by NSA in 2011. Subsequently, the sub-regions identified were largely informed by potential regions identified by the Namibian Government by looking at a number of investment catalogues and prospective projects targeted for PPPs and by NIDA.

Table 18 sets out 2011 data from the NSA indicating the number of households and proportions of the population in the various regions of Namibia that are involved in agro-processing. The three regions that are most heavily involved in agro-processing include Ohangwena, Kavango and Oshana. Two of these three regions also mirror data of the top three regions with the highest number of households that earn their main source of income from subsistence farming, which includes Omusati (38.5%), Kavango (31.4%) and Ohangwena (22.7%). (See Table 18.)

NSA datapoint - indicator: Households and population by type of own account agricultural activity	Zambezi (Prev. Caprivi)	Erongo	Hardap	//Karas	Khomas	Kunene	Ohangwena	Kavango	Omaheke	Omusati	Oshana	Oshikoto	Otjozondjupa
Number of households involved in agro-processing	58	35	38	16	152	35	289	212	46	205	264	205	167
Number of region's population involved in agro-processing	230	127	145	17	613	179	1 895	1 407	208	1 270	1 497	1 205	745

Table 18: Households and population by type of agricultural activity by region

According to the Namibia Household Income and Expenditure Survey (NHIES) 2015/2016 Report, the three top regions in Namibia that rely on subsistence

and commercial farming as their main sources of income include Omusati (39.1%), Kavango (31.4%) and Ohangwena (22.9%) (See Table 19 below).

NSA datapoint - indicator: Household main source of income	Zambezi (Prev. Caprivi)	Erongo	Hardap	//Karas	Khomas	Kunene	Ohangwena	Kavango	Omaheke	Omusati	Oshana	Oshikoto	Otjozondjupa
Subsistence farming as main source of income (%)	Not disclosed	0.4	1.8	1.0	0.3	18.8	22.7	31.4	6.7	38.5	7.2	21.9	3.3
Commercial farming as main source of income (%)	Not disclosed	0.1	1.1	1.9	0.2	0.3	0.2	0	1.0	0.6	0	0	0.6

Table 19: Households by main source of income by region

As set out in table 20, the Namibian Government has identified two regions where investment opportuni-

ties exist for the agro-processing sub-sector; namely Otjozondjupa and Kavango .

#	Region	Prioritised development of agro-processing	Focus area	Comments
1	Otjozondjupa	Yes	Agro-processing	The region has been identified by government as a region in which it is looking to grow the agro-processing sub-sector, as the region provides great investment opportunities in this sub-sector.
2	Kavango (East and West)	Yes	Agro-processing	Both the eastern and western regions of Kavango have many agro-processing development projects on the cards, which offer potential investors with a range of opportunities in this sub-sector.

Table 20 Relevant sub-region(s) for agro-processing sub-sector as set out by the Namibian Embassy

Included in the government's list of potential PPP projects in Namibia, the following irrigation-related project, which stimulates industries such as agro-processing, has been identified in the following region:

#	Region	Prioritised development of agro-processing	Focus area	Project name	Project size
1	Zambezi (rev. Caprivi)	No	Irrigation	Katima-Liselo Green Scheme Irrigation Farm	N\$ 370 million

Table 21: Candidate agro-processing PPP projects in Namibia as identified by the MoF, Namibia

Table 22 sets out the four regions where NIDA has identified and intends on developing potential agro-processing projects.

#	Region	Prioritised development of agro-processing	Focus area	Project name	Project size
1	Otjozondjupa	Yes	Agro-processing/ logistics	Establishment of the Industrial Park facility at Otavi	N/A
2	Zambezi	Yes	Tourism/agro-processing	Completion of the Manyeha Crocodile Farm in Kogola Facility	N\$ 77 million to complete the project. Government, through NIDA, has invested around N\$ 37 million and completed 68% of the development.
3	Kunene	Yes	Agro-processing/ horticulture	Expansion of the dates and viable agribusiness at Eersbegin facility at Kunene Region	N\$10 million
4	//Karas	Yes	Agro-processing/ horticulture	Expansion of irrigation projects at Naute for dates, table grapes, pomegranates, pecan nuts, prickly pears and others, as well as processing facilities	N\$ 10 million to N\$ 80 million
5	Kavango West	Yes	Agro processing/ horticulture/power generation	Establishment of the cotton, citrus charcoal production, a fuel station and a shopping complex facility at Kavango Cattle Ranch in Kavango West	N\$ 10 million to N\$50 million

Table 22: NIDA agro-processing project pipeline

Due to the diverse regions and the data presented, all the data points were collated in table 24. The table sets out the various data points taken into consideration to determine which regions should be considered as priority regions. Based on these data points, the top five regions that should be taken into consideration as priority regions for this sub-sector include:

1. Kavango
2. Ohangwena
3. Otjozondjupa

4. Zambezi
5. //Karas

Lastly, it is also noted that all five of these regions are some of the country's top pearl millet producing regions. Pearl millet is a subsistence cereal crop, which is an important staple food for more than 50% of the Namibian population, thereby supporting Namibia's food security.

The majority of Namibia's farmers are small-scale farmers practising subsistence farming (10.6% subsistence farming vs. 0.3% commercial farming), with the Kavango region being one of the two regions with the highest number of households (31.4%) earning

their main source of income from subsistence farming. As such, it makes sense for the government to further drive investment for such planned agro-processing and agricultural developments, particularly in the Kavango region.

Table 23: Agro-processing: All data points

Agro-processing: All data points	Zambezi (Prev. Caprivi)	Erongo	Hardap	//Karas	Khomas	Kunene	Ohangwena	Kavango	Omaheke	Omusati	Oshana	Oshikoto	Otjozondjupa
Region Prioritised by Namibian Embassy								Ⓟ					Ⓟ
NSA – households and population involved in agro-processing							Ⓟ	Ⓟ			Ⓟ		
NSA – household main source of income							Ⓟ	Ⓟ		Ⓟ			
Included in the government's list of potential PPP projects in Namibia	Ⓟ												
Included in NIDA's list of pipeline projects	Ⓟ			Ⓟ		Ⓟ		Ⓟ					Ⓟ

Agriculture products: investment opportunity areas

An IOA has been identified for the agro-processing sub-sector, which is geared towards developing commercial agriculture ecosystems on existing irrigation

schemes (such as those established at Naute Dam) with agro-processing capacity close to more sustainable water sources for Namibia's farmers.

This will likely spur increased local production of horticultural products

Table 24: IOA Irrigation scheme operation for commercial farmers

Irrigation scheme operation for commercial farmers	<input type="checkbox"/> Product <input type="checkbox"/> Service <input type="checkbox"/> Infrastructure <input type="checkbox"/> Technology <input type="checkbox"/> Financing	<p>>Invest in the expansion of and operation of existing irrigation scheme with agro-processing capacity on existing land available for import substitution and export purposes.</p> <p>>Example: Naute Agricultural Project on a land measuring 1 500 hectares located next to the Naute Dam. Currently produces dates, table grapes, pomegranates, pecan nuts, prickly pears and others on 200 hectares of the land available</p>
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7.2.2. Horticulture products (agricultural products)

Crops and horticultural products are some of the primary forms of local agricultural products produced in Namibia (maize, wheat, mahangu, cabbage, watermelon, potatoes, tomatoes, onion, grapes, dates, mangoes, etc.). As such, the Namibian Government has made it a priority to increase food production by 30% and increase livestock production to 10% by 2022. One of the ways in which the government intends to achieve this is by increasing the agricultural production for cereals, horticulture and livestock. Growth of this sub-sector has the opportunity to increase economic growth, create employment opportunities and to address the country's growing food insecurity.

and infrastructure required for the orderly marketing of horticulture produce. To give effect to this, the National Horticulture Development Initiative (NHDI) was established in 2002 by NAB, in partnership with the MAWF. This ultimately resulted in fresh fruit and vegetables being gazetted as controlled products in 2002, under Section 2 of the Agronomic Industry Act (Act 20 of 1992). Additionally, the Namibian Government has also put in place the Market Share Promotion (MSP) to aid in the marketing of local produce. This regulation requires that traders and retailers first look at purchasing locally sourced produce before being allowed to import.

Growth in this sub-sector is often hampered by poor and undeveloped markets and marketing infrastructure, most notably in the more remote areas of Namibia. Marketing infrastructure here refers to cold storage and other reliable refrigerated transportation to bring the produce to market. This often results in produce losses, especially for the more per-

In order to develop the Namibia market's local produce and industrial products, the Namibian Government has made it a priority to put in place regulations

ishable-prone horticultural produce, which could hamper crop diversification. Subsequently, this can discourage farmers from investing in increased production.

The Namibian horticulture sector has been identified as a potential investment area, given the large opportunities that exist as a result of Namibia's large reliance on importation of fruits and vegetables. Namibia is characterised as a net importer of horticultural

products, with around 500 active farmers and only 100 active traders.

In terms of food tonnage imports, data from the NAB indicates that for the 2018/19 year, Namibia had to import 65% of its horticulture imports, since only 35% of its horticulture products are produced locally (see figure 12). In terms of N\$ spend, this equates to around N\$417 million of fruits and vegetables that need to be imported (see figure 13).

Figure 12: Namibia's total horticulture imports vs. local production (tonnage) (2018/2019)

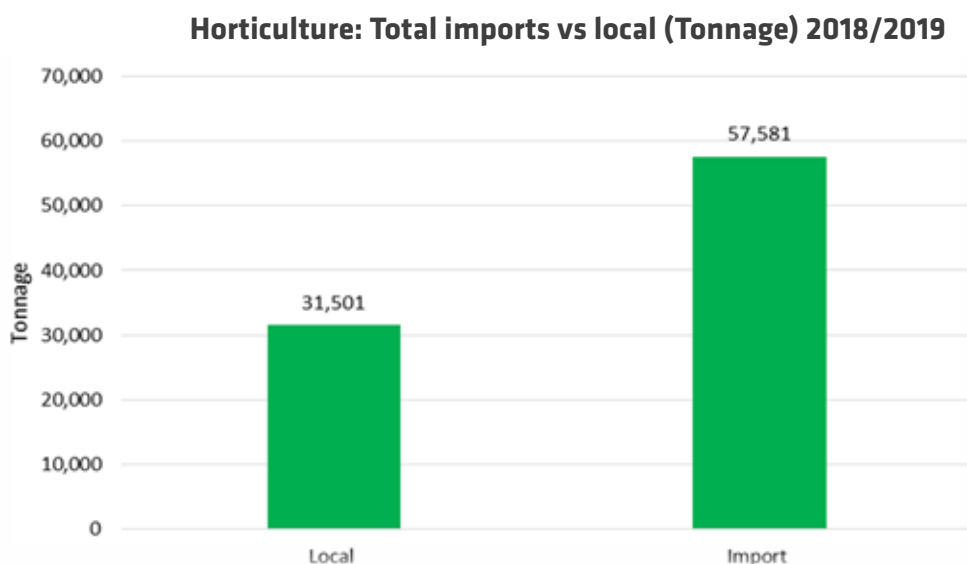
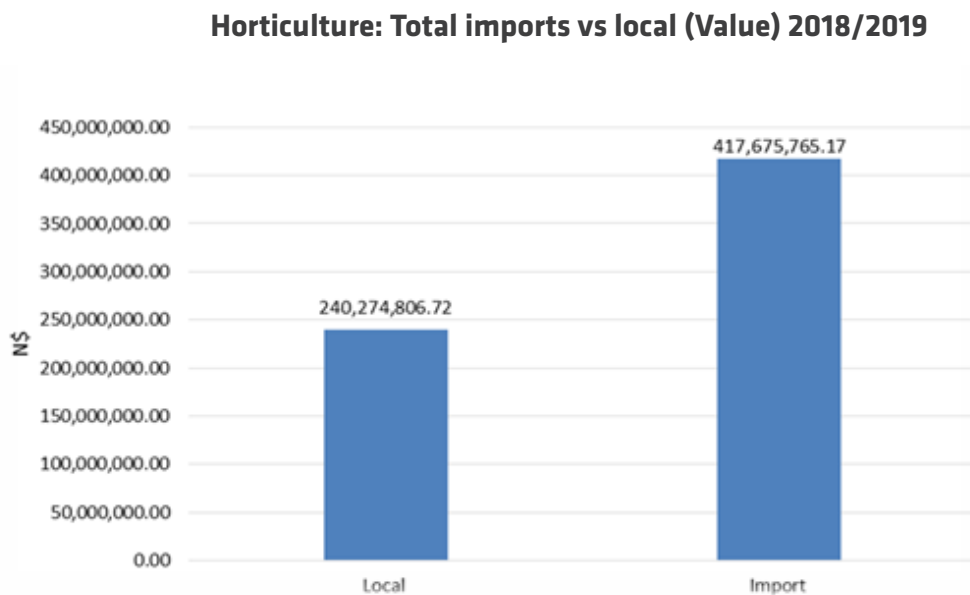


Figure 13: Namibia's total horticulture imports vs. local production (value) (2018/2019)



In terms of fruit and vegetables imported, data from the NAB indicates that for the 2018/19 year, Namibia had the greatest demand for the importation of po-

tatoes. For the year, Namibia imported around N\$167 million worth of potatoes (see figure 14 below).

Figure 14: Namibia's total imports vs. local production of fruits and vegetables (2018/2019)

MONETARY VALUE : IMPORT VS LOCAL FOR THE PERIOD 2018/2019						DEMAND SHARE %
Products	Import (N\$)	Local (N\$)	Total (N\$)	LOCAL %	IMPORT %	
BETROOT	1,073,942	3,464,545	4,538,487	76%	24%	1%
BROCCOLLI	2,596,238	1,998,326	4,594,564	43%	57%	1%
BUTTERNUTS	868,837	7,210,829	8,079,667	89%	11%	1%
CABBAGE	360,852	13,845,606	14,206,458	97%	3%	2%
CARROTS	4,343,645	17,362,155	21,705,801	80%	20%	3%
CAULIFLOWER	3,278,969	1,532,175	4,811,144	32%	68%	1%
ENGLISH CUCU	4,577,706	10,915,176	15,492,882	70%	30%	2%
GEM SQUASH	2,145,190	883,349	3,028,540	29%	71%	0.5%
LETTUCE	7,846,164	8,172,707	16,018,871	51%	49%	2%
MUSHROOM	4,028,437	9,909,450	13,937,887	71%	29%	2%
ONIONS	13,464,173	25,103,507	38,567,680	65%	35%	6%
PEPPER	10,299,324	9,820,331	20,119,656	49%	51%	3%
POTATOES	109,150,624	58,785,527	167,936,151	35%	65%	26%
PUMPKINS	737,008	4,704,690	5,441,699	86%	14%	1%
SPINACH	349,959	4,331,743	4,681,703	93%	7%	1%
SWEET CORN	980,537	5,343,052	6,323,589	84%	16%	1%
SWEET MELONS	1,620,924	2,424,662	4,045,586	60%	40%	1%
SWEET POTATO	4,261,473	4,050,505	8,311,979	49%	51%	1%
TOMATOES	15,607,397	26,023,130	41,630,526	63%	37%	6%
WATERMELONS	1,466,023	5,033,986	6,500,009	77%	23%	1%
SUB TOTAL	189,057,425	220,915,453	409,972,877	54%	46%	62%
OTHER	228,618,340	19,359,354	247,977,694	8%	92%	38%
TOTAL	417,675,765	240,274,807	657,950,572	37%	63%	100%

7.2.2.1. Priority sub-region: Horticulture products (agricultural products)

Sub-regions identified were informed by the Namibian Government; by looking at a number of investment catalogues; NSA data around households' main source of income in Namibia; SHDI data relating to position of children and prospective projects target-

ed for PPPs; and by NIDA.

Table 25 sets out data from the NSA's 2011 Population and Housing Census Regional, indicating the number of households and number of the population of the various regions in Namibia involved in horticulture. The three regions that are most heavily involved in horticulture include Omusati, Oshikoto and Oshana.

NSA datapoint - indicator: Households and population by type of own account agricultural activity	Zambezi (Prev. Caprivi)	Erongo	Hardap	//Karas	Khomas	Kunene	Ohangwena	Kavango	Omaheke	Omusati	Oshana	Oshikoto	Otjozondjupa
Number of households involved in horticulture	540	199	126	97	475	151	242	35	195	817	604	783	390
Number region's population involved in horticulture	2 689	740	553	437	2 130	775	1 481	283	1 039	4 516	3 306	4 570	1 916

Table 25: NSA (2011) datapoint - indicator: Households and population by type of own account agricultural activity

As set out in table 26, the Namibian Government has identified five potential regions where investment opportunities exist for agriculture development. One

region specifically, Omusati, is being targeted for the development of the horticulture product sub-sector.



#	Region	Prioritised development of horticulture products	Focus area	Comments
1	Kunene	No, agriculture more broadly	Agriculture, tourism and mining	The region is seeing an increase in investments in sectors, such as agriculture.
2	Omusati	Yes	Crop farming and tourism	This region is well known as an agriculture region in Namibia.
3	Ohangwena	No	Water supply and sanitation	Although one of the poorest regions in Namibia, this region has great agriculture opportunities due to the Ohangwena Aquifer project, which has the potential to supply the region and rest of the country with water.
4	Zambezi	No, agriculture more broadly	Agriculture	Although this region contains some of Namibia's most fertile lands, it continues to underperform in all areas of agriculture. Green scheme projects hold great potential for this region.
5	Kavango	No, agriculture more broadly	Kavango East: garment factories Kavango West: agriculture	Due to this region's high quantities of rainfall, there is great agricultural potential for the cultivation of various crops.

Table 26: Relevant sub-region(s) for horticulture products sub-sector as set out by the Namibian Embassy

According to the Namibia Household Income and Expenditure Survey (NHIES) 2015/2016 Report, the three top regions in Namibia that rely on subsistence

and commercial farming as their main source of income include Omusati (39.1%), Kavango (31.4%) and Ohangwena (22.9%) (see table 27).

NSA datapoint - indicator: Household main source of income	Zambezi (Prev. Caprivi)	Erongo	Hardap	//Karas	Khomas	Kunene	Ohangwena	Kavango	Omaheke	Omusati	Oshana	Oshikoto	Otjozondjupa
Subsistence farming as main source of income (%)	Not disclosed	0.4	1.8	1.0	0.3	18.8	22.7	31.4	6.7	38.5	7.2	21.9	3.3
Commercial farming as main source of income (%)	Not disclosed	0.1	1.1	1.9	0.2	0.3	0.2	0	1.0	0.6	0	0	0.6

Table 27: NSA datapoint - indicator: Household main source of income

Table 28 sets out the position of children per region based on the percentage of stunted children, wasted children and underweight children as a result of malnourishment through poverty. All of these health issues are typically related to acute malnutrition and diets that aren't able to cover the nutritional needs

of the developing child. Based on the data points in Table 28, the top three regions with the highest percentage of stunted children, wasted children and underweight children in Namibia per region include: Ohangwena, Omaheke and Oshikoto.

SHDI datapoint - indicator: Position of children	Zambezi (Prev. Caprivi)	Erongo	Hardap	// Karas	Khomas	Kunene	Ohangwena	Kavango	Omaheke	Omusati	Oshana	Oshikoto	Otjozondjupa
Percentage of stunted children	17.2	15.1	25.9	28.3	11.8	21.5	31.1	20.4	32.5	21.2	17.6	23.1	21.3
Percentage of wasted children	5.5	7.9	10.8	6.8	7.4	6.0	8.0	10.3	13.6	10.0	9.9	9.5	5.6
Percentage of underweight children	10.5	8.5	17.7	11.3	10.8	10.9	16.2	14.1	21.9	14.1	8.7	18.0	7.5

Table 28: Position of children by region



Table 29 sets out the four regions NIDA has identified, where it intends on developing potential horticulture projects.

#	Region	Prioritised development of horticulture	Focus area	Project name	Project size
1	Zambezi	Yes	Horticulture products	Katima Liselo Green Scheme Irrigation Farm	N\$ 370 million
2	Kunene	Yes	Agro-processing/horticulture	Expansion of the dates and viable agribusiness at Eersbegin facility at Kunene Region	N\$ 10 million
3	//Karas	Yes	Agro-processing/horticulture	Expansion of irrigation projects at Naute for dates, table grapes, pomegranates, pecan nuts, prickly pears and others, as well as processing facilities	N\$ 10 million to N\$ 80 million
4	Kavango West	Yes	Agro-processing/horticulture/power generation	Establishment of the cotton, citrus charcoal production, a fuel station and a shopping complex facility at Kavango Cattle Ranch in Kavango West	N\$ 10 million to N\$50 million

Table 29: NIDA horticulture-processing project pipeline

Due to the diverse regions and the data presented, all the data points were collated in Table 30. The table sets out the various data points taken into consideration to determine which regions should be considered as priority regions.

Based on these data points, the top four regions that

should be taken into consideration as priority regions for this sub-sector include:

1. Omusati
2. Oshikoto
3. Kavango
4. Ohangwena

Horticulture Products All Data points	Zambezi (Prev. Caprivi)	Erongo	Hardap	//Karas	Khomas	Kunene	Ohangwena	Kavango	Omaheke	Omusati	Oshana	Oshikoto	Otjozondjupa
NSA – households and population involved in horticulture										þ	þ	þ	
Region prioritised by Namibian Embassy										þ			
NSA – households by main source of income by region							þ	þ		þ			
SHDI – highest percentage of stunted children, wasted children and underweight children in Namibia per region							þ		þ			þ	
Included in NIDA's list of pipeline projects	þ			þ		þ		þ					

Table 30: Horticulture products sub-sector: all data points



Agriculture products: investment opportunity areas

One IOA has been identified for the horticulture products sub-sector, which is geared towards expanding investment commercial agri-developments to pro-

vide an ecosystem for small-scale farmers to upscale produce production,

The IOA's business model type and a description of the business model have also been set out in table 31.

Horticulture products (agricultural products)	Commercial agri-developments	<ul style="list-style-type: none"> □ Product □ Service □ Infrastructure □ Technology □ Financing 	<p>> Invest in commercial agri-developments that create “agricultural towns”, first creating a mini-economy within the agricultural town, and then scaling until there's capacity for export into the international market. These developments provide plots of ten hectares for sale, which includes existing infrastructure for agricultural produce within an existing agriculture hub that provides training, mentorship and offtake.</p> <p>> Example: >Roots Agri-Village >>The Roots Agri-Village consists of 62 agricultural empowerment plots available for sale in Stampriet (Hardap region). In conjunction with the Roots Agricultural College, discerning individuals will be trained to farm more intensively and sustainably. Concepts can be potentially rolled out to all 14 regions of the country. The development has managed to plant and harvest the first commercial apple orchard in the history of Namibia (Link: https://rootsnamibia.com)</p>
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Table 31: Agriculture products: IOA

SECTOR: AGRICULTURE (FOOD & BEVERAGE)

IOA: IRRIGATION SCHEME OPERATION FOR COMMERCIAL FARMERS

Business Model

Operate and expand irrigation schemes with agro-processing capacity on existing commercial farm land for import substitution and enhanced export activities.

Potential Outcomes

> Enhance Namibia's agro-processing capacity to improve food security in the country and promote export of produce to Southern African Development Community (SADC) markets.
> Improved national food security situation, and higher overall agricultural production.
> Increased value addition to local horticulture produce, and increased export revenue from agricultural products.

SDG Alignment

> Direct: 2, 9
> Indirect: 12, 15, 8

SDG Indicators

2.3.1 Volume of production per labour unit by classes of farming/pastoral/forestry enterprise size.
2.4.1 Proportion of agricultural area under productive and sustainable agriculture.
2.a.1 The agriculture orientation index for government expenditures.
9.2.1 Manufacturing value added as a proportion of GDP and per capita.

Development Need

> Namibia is an arid country with an annual rainfall between 20mm on the Atlantic coast and 600 mm in the northeast. Only 8% of the country receives more than 500 mm annually, which combined with poor soils are obstacles to optimum agriculture production. The lack of arable land remains the major obstacle to agricultural productivity.
> Only 11,500 hectares of Namibia's farm land is under irrigation, leaving 15,500 hectares without irrigation under the Green Scheme programme.
> 428,000 Namibians (17% of the population) face high levels of acute food insecurity, including around 14,000 people in emergency. The regions of Kunene, Erongo, Khomas, Ohangwena, Kavango West, Omaheke and Zambezi are "in crisis", as per the Integrated Food Security Phase Classification.

Priority subregions

// Karas, Zambezi and Oshikoto regions

Users or beneficiaries

> Direct: Stands to benefit commercial farmers as well as consumers and local retailers will benefit from higher quality produce at lower prices.
> Indirect: Through increased production surrounding communities see an influx of additional job opportunities.

Market Sizing

15,500 hectares of farm land require irrigation infrastructure.

Return Profile

10% - 15%

Investment timeframe

Long Term (10+ years)

Financial Environment

> Financial incentives: Agribank, as a state-owned financial institution and mandated by the Agribank Act (2003), advances money to persons or financial intermediaries to promote agriculture and activities related to agriculture.
> Fiscal incentives: Farmers can deduct capital expenditure in full in the year in which the expenditure is incurred, limited to the farming taxable income for the year. This includes a deduction of capital expenditure relating to power supply.
> Other incentives: FNB's Agri Medium-Term Loan product can be used for the establishment of production capacity, such as the purchase of livestock, establishing orchards and farm buildings, and other projects that take time to generate an income.

SECTOR: AGRICULTURE (FOOD & BEVERAGE)

IOA: IRRIGATION SCHEME OPERATION FOR COMMERCIAL FARMERS

Regulatory Environment

- >Agronomic Industry Act, 1992
- >Agricultural Produce Export Ordinance Act, 1928
- >Marketing Act, 1968

Policy Environment

- >Industrial Policy, 2013
- >Agricultural Policy, 2015
- >Agriculture Marketing and Trade Policy and Strategy, 2011
- >Growth at Home Strategy, 2012

Partner Environment

Investors: Agribank of Namibia, Musa Capital Namibia (Mid-Cap Fund), EOS Capital (Euphrates Agriculture Fund), FNB Namibia and Spitz Capital.

Public: The Environmental Investment Fund (EIF)

Obstacles to Scale

- >Challenges to access key crop inputs due to limited availability and high production costs.
- >Lack of access to affordable finance for crop production.



SECTOR: AGRICULTURE (FOOD & BEVERAGE)

IOA:COMMERCIAL AGRI- DEVELOPMENTS FOR AGRICULTURAL PRODUCE AND LIVESTOCK

Business Model

Establish "agricultural towns" through commercial agri-developments that first lead to mini economies within the developments and then scale with capacity for export of produce and livestock to international markets. The developments offer 10 hectares plot for sale and provide supporting infrastructure, including a hub offering training, mentorship and offtake.

Potential Outcomes

Create mini-economies and turn marginalised areas into productive agri-produce and livestock centers.

SDG Alignment

Direct: 9,2
Indirect: 1,12,15

SDG Indicators

>Increased smallholder or communal farmers productivity of local horticulture products.
>Reduced dependency on imported food from the region as well as increased food security and enhanced agricultural expertise in Namibia.
>Reduced poverty through stabilisation of local food prices.

Development Need

>Namibia produces only 40% of the food it consumes and is highly dependent on imports. This means that while food is available, price fluctuations can make it difficult for 28% of Namibian households to access food, especially for the 80% of Namibians who depend on markets to fulfil their needs.

Priority subregions

Omusati, Oshikoto, Kavango East, Kavango West, Ohangwena and //Karas regions

Users or beneficiaries

> **Direct:** Current emerging farmers in the skilled agricultural sector (second highest sector of employment nationally behind elementary occupation) of which 16.9% of the employed population are female. Employment for low-skilled, predominantly previously disadvantaged Namibians.

> **Indirect:**

>>Surrounding communities through lower food prices due to ease of access.
>>Nation through import substitution of specific horticulture crops and eventually foreign currency earner through exports.
>>Consumers and local retailers will benefit from higher quality produce at lower prices.
>> Environment: Farming systems that are more drought resistant and places less pressure on the water system.

Market Sizing

>Namibia's annual demand for horticultural products is about 89,082 tons, of which only 31,501 tons or 35% is currently produced locally.
>For the 2019/20 season, Namibia exported 33,000 tonnes of table grapes, earning USD 60 million. As of 2019, the country exported 1,446 tonnes of dates to South Africa, the UK and the UAE with a total value of USD 5 million, and the worldwide date market is expected to grow with 2.3% CAGR between 2018 and 2025 (13).
>Namibian beef exports are in high demand in in China, EU, United Kingdom, USA, Zambia, DRC, Angola and Sudan.

Return Profile

15% - 20%

Investment timeframe

Medium Term (5-10 years)

Financial Environment

>Agribank, as a state-owned financial institution and mandated by the Agribank Act (2003), advances money to persons or financial intermediaries to promote agriculture and activities related to agriculture.
>Fiscal incentives: Farmers can deduct capital expenditure in full in the year in which the expenditure is incurred, limited to the farming taxable income for the year. This includes a deduction of capital expenditure relating to power supply

SECTOR: AGRICULTURE (FOOD & BEVERAGE)

IOA: COMMERCIAL AGRI- DEVELOPMENTS FOR AGRICULTURAL PRODUCE AND LIVESTOCK

Regulatory Environment

- >Agronomic Industry Act, 1992
- >Agricultural Produce Export Ordinance Act, 1928
- >Marketing Act, 1968
- >Meat Industry Act, 1981

Policy Environment

- >Agricultural Policy, 2015
- >Agriculture Marketing and Trade Policy and Strategy, 2011

Partner Environment

Investors such as Agribank Namibia, Musa Capital Namibia (Mid-Cap Fund), EOS Capital (Euphrates Agriculture Fund), FNB Namibia and Spitz Capital. Businesses such as the existing Roots Agri-Village or the planned Fransforntein Green Scheme.

Obstacles to Scale

- >Ineffective extension services and lack of storage (which can be mitigated through the support infrastructure provided in the commercial agri-developments).
- >Lack of access to affordable finance for crop production



8. SECTOR 3: SERVICES

8.1.1. Why services?

The Namibian Government, through the Office of the Presidency, has acknowledged the role the services sector – which includes hotels and restaurants, and is considered a proxy for the tourism industry in Namibia – can play in terms of economic transformation and employment creation; not only at a country level, but at a global level as well. According to the NPC, the services sector in 2017 accounted for 35% (less government activities) in Namibia’s annual GDP and accounts for higher employment levels, evidenced by the fact that during 2016 the service sector’s employment rates equated to around 60% of all jobs in Namibia. Over the period 2012-2016, the Namibian service sector also saw an average growth rate of 6.1%.

The Africa SDG Index and Dashboards Report of 2019, which reported on Namibia’s progress towards ending poverty (SDG 1) indicates that the country still faces “significant challenges” in achieving this SDG with general trends suggesting that the country is “decreasing” in its progress towards achieving this goal. This has been ascribed to slow economic growth, which has negatively impacted on industrial and investment growth over the course of 2016 and 2017.



■ Major challenges ■ Significant challenges ■ Challenges remain ■ SDG achieved

↓ Decreasing → Stagnating ↗ Moderately improving ↑ On track or maintaining SDG achievement

Figure 15: Namibia’s progress on SDG 1
Source: SDG Center for Africa and Sustainable Development Solutions Network, 2019

The Namibian Government has committed to achieving inclusive, sustainable and equitable economic growth under its Economic Progression Pillar in the NDP5, as well as economic transformation under its Economic Advancement Pillar of the HPP. At a regional level, the following five services have been identified as priority sectors that will be included under the AfCFTA: professional and business services, communications services, transport services, financial services and tourism.

Services sector SAM multiplier analysis

The economic and social impact of each sector was determined based on Namibia’s most recent SAM data (2013). Although the sector and sub-sector specifications are constrained by the structure of the SAM, the framework results from the SAM multiplier analysis provide useful statistics on the sectors that can maximise the developmental outcomes.

Table 32 indicates the impact that an increase in final demand will have on GDP, output, and income by sector. Based on this analysis, economic activity in Namibia appears to be labour intensive, given the higher multiple effects for the services commodities.

An increase in the final demand for services, sectors such as trade and tourism, health, education and public administration, and communication are most likely to generate profound multipliers on output, GDP, and income.

Table 32: Namibia output, GDP and income multipliers

Sector	Output	GDP	Income
C-Commercial agri-developments	1.2000	0.6830	0.6000
C-Traditional agriculture	1.9917	1.3544	1.2269
C-Fishing	1.6332	0.8090	0.6052
C-Other mining	1.8399	0.9423	0.6869
C-Diamond mining	1.1579	0.8825	0.5727
C-Food, beverages, tobacco	1.3438	0.5860	0.4352
C-Textiles and clothing	0.5873	0.2884	0.2045
C-Wood and paper	0.5513	0.2760	0.2151
C-Petroleum	0.0000	0.0000	0.0000
C-Chemicals and pharmaceuticals	0.3432	0.2091	0.1396
C-Rubber and plastic products	0.3123	0.1852	0.1322
C-Metals and minerals	1.5680	0.7664	0.5522
C-Machinery and equipment	0.0562	0.0330	0.0236
C-Diamond processing	2.1541	0.9568	0.6520
C-Electricity	1.4654	0.7138	0.5354
C-Water	2.0768	1.1160	0.8397
C-Construction	2.0116	0.8383	0.5801
C-Transport	1.4329	0.6829	0.5141
C-Communication	2.1088	1.2204	0.8638
C-Finance and insurance	1.9204	1.2558	0.8732
C-Real estate	1.5612	1.1259	0.7206
C-Other private services	2.1035	1.4684	1.2593
C-Health, education, public admin	2.1676	1.3220	1.1108
C-Trade and tourism	2.1036	1.0944	0.8366

Source: Monasa Advisory & Associates; DNA Economics; Six Capitals; 2021. SAM Multiplier Analysis for the Namibia SDG Investor Map study in Namibia.



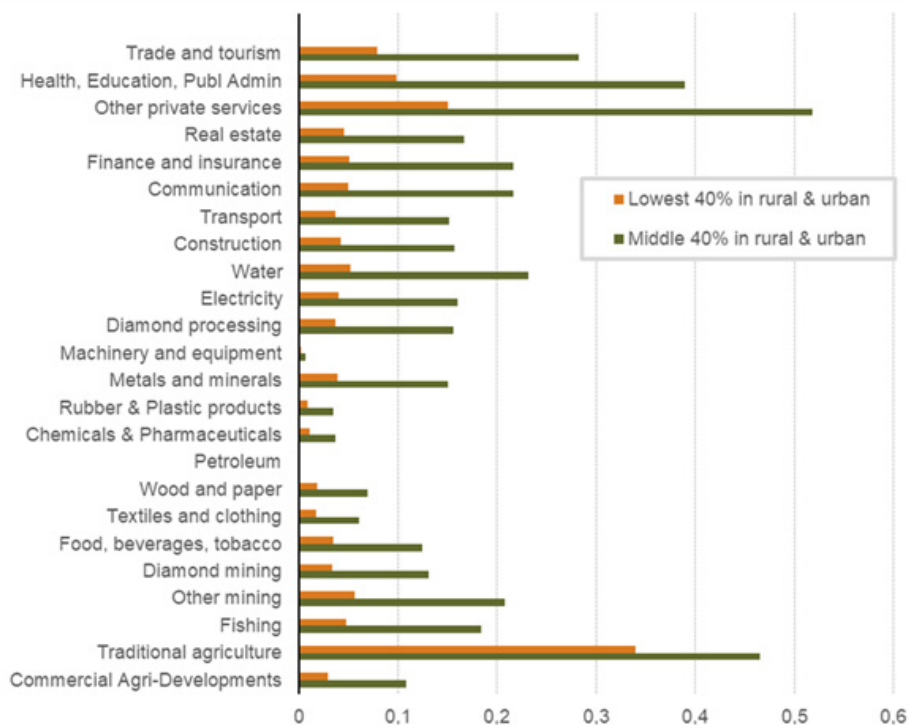


Figure 16: Namibia's SAM multipliers for the lower 40% and middle 40% population, 2013 in millions

As illustrated in figure 17, for unskilled labour, increases in final demand for services commodities (e.g., other private services and health, education and public administration) will induce the largest income multipliers, followed by the agriculture com-

modities. To maximise the developmental outcomes from changes in investment, government expenditure and trade, the commodities with the strongest multipliers are the services and traditional agriculture sectors.

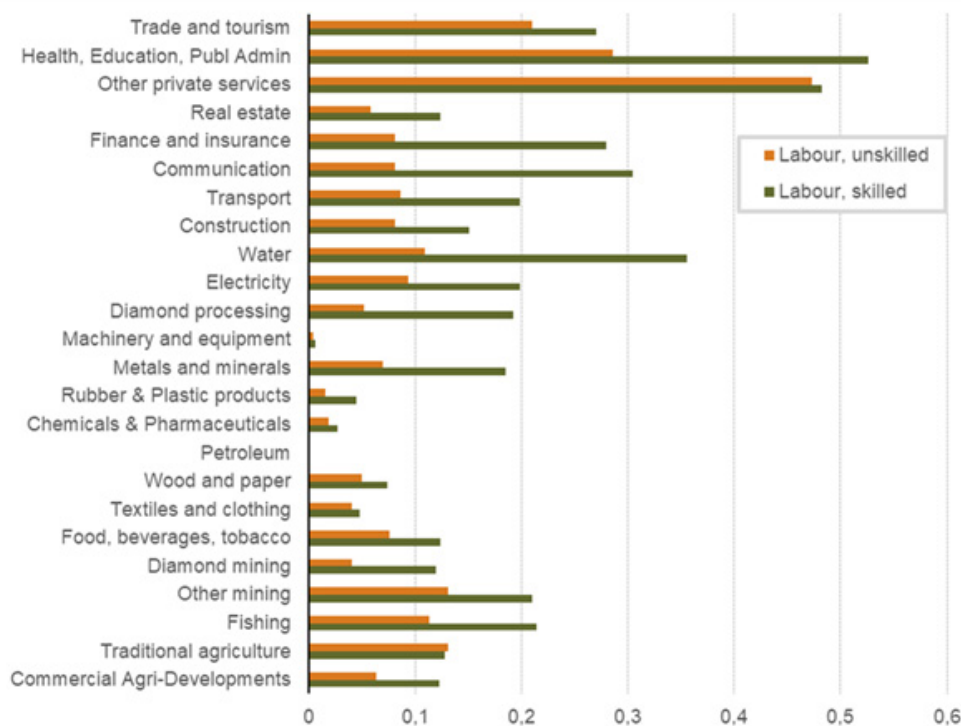


Figure 17: Namibia's SAM income multipliers for skilled vs. unskilled labour, 2013 in millions

Gender inequality and services

Limited gender data, however, was available on Namibia's workforce who are employed within the services industry. In terms of gender representation at a sectoral level, Namibia's service industry is characterised as a female-dominated industry. According to 2020 World Bank data, 72% of the service industry's workforce is represented by females, with only 18% being represented by males .

8.1.1.1. Sub-sector priorities: Logistics

The Africa SDG Index and Dashboards Report of 2019, which reported on Namibia's progress in achieving SDG 9 (Industry, Innovation and Infrastructure), indicates that the country has "major challenges" in achieving this SDG. However, trends suggest that the country is "moderately improving" in its progress . When the logistics sector has adequate infrastructure at its disposal, it enables manufacturers and small- and medium-enterprises to get their products to market.

This subsequently increases productivity and cuts costs, as well as broadening their potential client base. A well-functioning logistics sector is also important for other key sectors and sub-sectors in Namibia's economy; namely mining, manufacturing, agriculture, tourism etc. Given these factors, the logistics sector plays a crucial role in economic transformation through the facilitation of economic growth and deepening regional integration by means of international trade. Investment towards this sector is therefore vital .

Namibia has a relatively well-developed road network covering 45 380km, of which 14% is paved. About 93% is either in good or fair condition. The rail network comprises 2 382km of Cape gauge configuration, like the rest of the region. The railway network plays an important role in the movement of bulk freight. Namibia's largest port, Walvis Bay, has recently undergone expansion and modernisation. The expansion of the port container terminal, which was commissioned in August 2019, forms part of long-term plans to position the country as a logistics and distribution hub for the SADC region. The port is linked to the region through four transport corridors, the promotion of which is key to the sustainability of the port.

The four transport corridors include the Trans-Kalahari via Botswana, Trans-Caprivi, Trans-Cunene via Angola to DRC and Trans-Orange via South Africa that links to SADC countries. The Trans-Kalahari and the Trans-Caprivi highways provide a fast and comfortable road link between the Namibian port of Walvis Bay on the Atlantic coast and Namibia's landlocked neighbouring countries. The highways provide a regional transport corridor intended to reduce shipping times for imports and exports from the neighbouring countries to the markets of Western Europe and the Americas by at least five days, compared to traditional routes in southern Africa .

The Port of Walvis Bay has become the preferred African West coast port and logistics corridor for southern and central African logistics operations. It happens to be Namibia's largest commercial port and links the country's multimodal transport corridors to local, SADC landlocked countries and international

Figure18: Namibia's progress on SDG 9



Source: SDG Center for Africa and Sustainable Development Solutions Network, 2019

markets. The port receives about 3 000 vessels and handles five million tonnes of cargo each year. It has good port infrastructure that ranks among the best in Africa, and offers competitive tariffs. The traffic at the Walvis Bay Port and along its transport corridors has grown significantly over the past few years. Cargo volumes almost doubled from 145 000 TEUs to 337 000 TEUs between 2005 and 2012. With the new terminal commissioned only recently, traffic is expected to increase to 750 000 TEUs. The Port of Walvis Bay handled 93.1% of total cargo (gross tonnage) transiting to and from the neighbouring countries in 2017. Of the eight or so countries that use the Port of Walvis Bay for imports and exports, Zambia, Angola, DRC, Botswana and Zimbabwe are the main markets for transit cargo by volume .

The logistics sector in Namibia grew on average at 14.5% between 2007 and 2017. According to the National Accounts (NSA, 2017), the following logistics sectors – wholesale trade, retail trade and road freight – made a relatively higher contribution to GDP compared to other logistics-related sectors.

Namibia's logistics performance index overall score of 2.73 (aggregated 2012-2018) makes it part of the top 50% internationally. The six dimensions of trade logistics analysed in the International Logistics Performance Index include efficiency of customs and border management clearance; the quality of trade and transport infrastructure; ease of arranging competitively priced shipments; competence and quality of logistics services; ability to track and trace consignments; and the frequency with which shipments reach consignees within scheduled or expected delivery times .

Road freight accounts for more than 80% of total tonne kilometres of goods transported in Namibia including transit cargo. This is due to a shift in recent years of transporting heavy bulk from rail to road, which has put immense pressure on the structural integrity of the road infrastructure. Subsequently, Namibia's railway sub-sector has become characterised “by dilapidated infrastructure, aged and obsolete locomotives” . This has resulted in limited rail-road capacity, and by 2018 Namibia's railroad system was only able to haul 15-20% of the total freight market. Currently, 60% of rail freight traffic is generated from the port of Walvis Bay. Given the recent port expansion, there will be increased demand for freight services. Around 7% of the rail freight is cur-

rently generated from cross-border traffic. Presently, there is only one rail connection to South Africa's rail network, with Namibia and South Africa sharing the same rail gauge .

Namibia's railway network transports approximately 1.2 billion TKM of cargo annually. In 2017 Namibia's railway system, operated by TransNamib Holdings Limited (TNHL), an SOE, moved 1.58 million metric tonnes of various commodities. This included both bulk and containerised freight. With improvements, rail freight volumes could almost double within the next five years from the current 1.6m to six million metric tonnes, representing almost 1\3 of the total freight traffic volume in Namibia. .

Of the three corridors connecting Walvis Bay with countries in the SADC region, the Walvis Bay-Ndola Lubumbashi Development Corridor is the busiest, followed by Trans-Cunene and Trans-Kalahari Corridor in that order with respect to transit cargo.

In 2017, 1,150 million TKM of freight was transported along the Walvis Bay-Ndola Lubumbashi Development Corridor, up 39.2% from 2016, when 826.1 million TKM was transported. The comparative volumes for Trans-Cunene were 54.1 million TKM in 2017, up from 50.5 million TKM in 2016 (or 7.1% annual increase), while Trans-Kalahari Corridor experienced a decrease of -7.3% from 20.5 million TKM in 2016 to 19.0 million TKM in 2017.

The AfCFTA aims to effectively leverage the continent's economic size to achieve impactful widespread economic growth. The African continent, with a continually growing population of approximately 1.2 billion, is fragmented into 55 AU member states, of which many are too small (Namibia, arguably being one of them) to support the economies of scale and investment necessary for industrial growth. Businesses in Africa face average tariffs of 6.9% when they trade across Africa's 107 unique land borders, but also substantial non-tariff barriers, regulatory differences, and divergent sanitary, phytosanitary and technical standards that raise costs by an estimated 14.3% . The AfCFTA seeks to integrate and consolidate Africa into a USD2.5 trillion market. In order for Namibia (as a strategic gateway to the African market) to take full advantage of the obvious economic opportunities within the framework of the AfCFTA, the country would need to strengthen infrastructure linkages, both internally and externally, in partnership with neighbouring governments.



Immediate focus areas in infrastructure for comparative competitiveness is an efficient, reliable transport and logistics hub, which would include the upgrading of the Hosea Kutako International Airport to allow capacity for increased trade. Additionally, to effectively leverage off the Walvis Bay corridor transit route, ranked as one of the best on the continent, the existing railway network would need an immediate upgrade and expansion. Owing to limited capacity, the existing railway system can only manage to haul 15-20% of the total freight market.

Namibia's track railway network transports approximately 1.2 billion TKM of cargo annually. Currently, there is only one cross border rail connection, which is situated at Nakop between Namibia and South Africa, which accounts for approximately only 7% of the rail freight .

The northern railway line extends to Oshikango, however, the Angolan rail network has not been extended to connect to the border town. This provides the opportunity for the Namibian Government to facilitate a number of co-investment partnership agreements for linkages with other networks such as Botswana, Zambia, DRC, Angola and Zimbabwe. In order to effectively capitalise on intra-Africa trade, the rail network would need to connect Zambia, DRC and Zimbabwe via Grootfontein (Rundu and Katima Mulilo) and Botswana via Gobabis, which could act as important conduits for neighbouring markets and the port of Walvis Bay.

8.1.2. Cold storage infrastructure

As a country, Namibia lacks adequate storage, and specifically cold storage facilities, that will enable value addition; an issue that's been hampering the country for some time. Cold storage facilities needed to maintain the lifespan of fresh produce are limited and, in most cases, raw products are exported and re-imported into the country for value addition. An effective temperature-controlled supply chain would increase local food storage capacity, as well as in-

crease Namibia's regional significance as a food import commercial gateway to landlocked African nations.

The Namibian Government has made commitments towards increasing the provision of national food storage capacity from 22 900Mt to 39 400Mt. Commitments have not only been made at a national level, through plans such as the NDP5 and HPP, but at a sectoral level, as well through sectoral policies such as the 2015 Agriculture Policy. This policy outlines key priority areas by the Namibian Government for action with regards to trade. This sub-sector is specifically aligned to the government's vision of establishing an agro-processing sector in Namibia through the MIT's "Growth at Home Strategy". In order to adequately grow the agro-processing sector, the government has also prioritised the development of cold storage facilities .

In a bid to address Namibia's food safety and food security threats, the Agro-marketing & Trade Agency Namibia (AMTA) was established in 2015 as a specialised agency of MAWF. Their mandate is to manage three units; namely Fresh Produce Business Hubs (FPBHs) and National Strategic Food Reserve (NSFR) infrastructure. The purpose of FPBHs is to address the country's shortage of bulk cold storage facilities .

Growth of this sub-sector has the opportunity to address two key issues for the Namibian market:

1. Increased storage capacity will increase the country's food security, give that one of the main causes of losses of perishable products is the lack of reliable and adequate cold chain facilities.
2. The resultant loss of perishable products does not only lead to increased food insecurity, but also decreases market opportunities for farmers and all those in the agricultural value chain.

As such, investment in bulk cold storage infrastructure is able to promote both market growth and food and nutrition security.

Common constraints for growth in this sub-sector include a lack of prioritisation by both government and development organisations, which means it remains a largely untapped sector in comparison to the actual

and potential need of many sub-Saharan countries in Africa. Additional challenges faced in this sub-sector also include a lack of access to energy, qualified technical staff for the operation and maintenance of cold storage infrastructure, poor logistical and organisational arrangements for value chain activities, and reduced trade volumes.



8.1.2.1. Priority sub-region: Cold storage infrastructure (food and beverage retail)

The only granular regional level data for the cold storage infrastructure sub-sector publicly available stems from the Namibian Census of Agriculture, which was conducted by NSA in the 2013/14 year. Due to the limited statistical data available per sub-sector, sub-region data obtained relied on publicised activities and initiatives rolled out by government within

various regions of Namibia. Figure 19 sets out the types of storage facilities used by farmers to store their crops and fresh and other agricultural products. The dominant storage facility used in the country is granaries or silos, whereas the least used form of storage is underground. The second-least used storage is cold storage and is predominantly used in the Omaheke region. The only three other regions that make use of this form of storage are Kavango West, //Karas and Oshikoto.

Region	Type of storage facility										
	Granary	In the house	Specific house / Under shelter / room	Under shelter / outside	Sealed	Bags	Drums	Silo	Cold storage	Under ground	Other
//Karas	0	216	11	6	20	246	0	0	32	0	0
Erongo	5	45	8	10	6	90	6	0	0	0	3
Hardap	0	3	63	9	0	64	0	0	0	0	0
Kavango East	218	121	6	47	39	10 645	300	38	0	0	0
Kavango West	298	131	147	63	9	9 791	256	158	36	0	42
Khomas	0	2	0	0	0	9	0	0	0	0	0
Kunene	163	149	60	45	17	1 450	288	7	0	0	6
Ohangwena	25 575	276	146	74	1 858	3 466	7 075	653	0	0	151
Omaheke	7	237	50	15	140	1 866	127	4	106	53	0
Omusati	36 607	417	245	57	866	6 093	5 084	60	0	0	467
Oshana	10 658	115	0	0	887	1 912	2 890	0	0	0	170
Oshikoto	14 418	93	268	48	1 628	3 876	6 922	143	22	0	297
Otjozondjupa	83	124	28	16	234	516	37	0	0	0	13
Zambezi	244	216	47	30	0	6 894	201	9	0	0	11
Namibia	88 276	2 145	1 079	420	5 704	46 918	23 186	1 072	196	53	1 160

Figure 19: Number and distribution of holdings reporting storage facility by region

Table 33 provides a list (non-exhaustive) of produce distribution hubs with cold storage facilities that have been established, driven by the Government's Green Scheme Programme established in 2008. The FPBHs located in Kavango, Khomas and Oshana were built with the specific purpose of addressing Namibia's horticulture industry shortage of bulk cold stor-

age, marketing, logistical and processing facilities. These facilities play an important role in serving as a platform for farmers to market their produce, and creating a space where resident Namibian retailers can procure their produce for distribution in the domestic and international markets.

#	Region	Project name	Type	Year opened	Project Size
1	Omusati (Epalela)	Olushandja Horticulture Marketing Centre	Produce distribution hubs and cold storage facilities	2012	N\$1.3 million
2	Kavango (Rundu)	National Fresh Produce Business Hubs		2013	N\$217 million
3	Khomas (Windhoek)				
4	Oshana (Ongwediva)				

Table 33: Existing cold storage facilities

Taking into consideration the regions identified from the data above, which already have existing cold storage facilities, it would be prudent for the Namibian Government to consider expanding investment in cold storage facilities and associated infrastructure development in the regions that have the least amount of access to any form of existing storage at present. According to the Namibian Census of Agriculture, the regions with an overall lack of access to any form of storage include Hardap and Khomas. However, Khomas has since gained access to cold storage facilities through the government's produce distribution hubs. As such, the region of Hardap

would be a preferable region for cold storage infrastructure investment.

Cold storage infrastructure: investment opportunity areas

One IOA has been identified for the cold storage infrastructure sub-sector, which is geared towards expanding investment in Namibia's small-scale farmers. Such investment will likely spur increased local production. The IOA's business model type and a description of the business model have also been set out in table 34.

Expansion of cold storage port facilities	<input type="checkbox"/> Product <input type="checkbox"/> Service <input type="checkbox"/> Infrastructure <input type="checkbox"/> Technology <input type="checkbox"/> Financing	> Invest in the development of cold storage facilities at the port of Walvis Bay, with focus on agri-produce that would create a temperature-controlled supply chain.
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Table 34: Cold storage infrastructure: IOA

8.1.2.1.1. Priority sub-region: Logistics

Currently, 60% of rail freight traffic is generated from the port of Walvis Bay, located in the Erongo region. Given the ongoing port expansion, there will be increased demand for freight services. As such, it would be prudent to prioritise investment in this region. Namibia has an opportunity to increase the cur-

rent 1.6 million metric tonnes per annum to 3 million metric tonnes by improving the railway service (Namibia State of the Logistics Report, 2018). This will require an increase of railway percentage share of various cargos for which rail has a distinct advantage, such as containers, liquid and dry bulk, and project cargo and construction material.



Logistics: investment opportunity areas

One IOA has been identified for the logistics sub-sector, which is geared towards expanding Namibia's railway freight capacity. This will encourage the

growth and diversification of the country's tourism service and infrastructure. The IOA's business model type and a description of the business model have also been set out in table 35.

Investment opportunity areas	Business model type	Business model description
Large-scale rail infrastructure	<input type="checkbox"/> Product <input type="checkbox"/> Service <input checked="" type="checkbox"/> Infrastructure <input type="checkbox"/> Technology <input type="checkbox"/> Financing	Provide project financing to upgrade rail infrastructure

Table 35: Logistics: IOA



SECTOR: SERVICES

IOA: COMMUNITY BASED CULTURAL TOURISM

Business Model

Develop joint venture tourism infrastructure, such as lodges, through agreements with communal conservancies.

Potential Outcomes

>Enhanced rural development and increased economic growth from tourist activities.
>Additional national and international tourists without adding pressure on existing destinations in fragile environments.
>Improved livelihoods in target regions through direct contractual cash payments to conservancies, salaries for employees, staff training and related benefits, such as payments of cash and in-kind contributions (equipment, donated services, etc.) to village development committees.

SDG Alignment

Direct: 8,11,5
Indirect: 1,10

SDG Indicators

8.3.1 Proportion of informal employment in total employment, by sector and sex.
8.5.1 Average hourly earnings of employees, by sex, age, occupation and persons with disabilities.
11.4.1 Total per capita expenditure on the preservation, protection and conservation of all cultural and natural heritage, by source of funding (public, private), type of heritage (cultural, natural) and level of government (national, regional and local).
15.a.1 (a) Official development assistance on conservation and sustainable use of biodiversity; and (b) revenue generated and finance mobilized from biodiversity-relevant economic instruments.

Development Need

> According to the 2018 Labour Force Survey, the tourist sector, employs 83,056 people, making it the second greatest contributor to employment in the country. According to the Bank of Namibia (2020) the COVID-19 pandemic has altered this considerably, with retrenchments and reported reductions in labor hours across the industry.
>Social and economic development in Namibia's rural communities lags behind, and cultural tourism is seen as a suitable entry point into greater tourism activities that empower the local population.

Priority subregions

Khomas, //Karas, Kunene and Otjozondjupa regions

Users or beneficiaries

>Direct
>>The communities that have traditional authority rights on the land as well as surrounding communities.
> >The wildlife and ecosystems that will benefit from the increased capacity of the conservancies as a result of increased funding to protect them.

Market Sizing

>Namibia is ranked 13th among the world's top 30 emerging tourism destinations for 2020, according to the Emerging Destination Awards (2020). Only two other African countries, Rwanda and Ethiopia, are included on the list.
>According to the IPPR (2021) tourist arrivals has grown steadily of the period 2009 to 2019, from about 1 million in 2009 to 1,68 million tourism arrivals in 2019 (last available data is currently from 2019).
>Tourism in the conservancies of Namibia is a dynamic and fast growing sub sector of the national tourism industry. Covid pandemic has provided valuable lessons in terms of making tourism more attractive to domestic market. According to the latest official domestic tourism expenditure survey (2019), Namibians spent a total of USD450 million on trips within the country. Since 1998, the private sector has invested more than N\$ 145 million (US\$ 20 million) in tourism joint ventures in communal conservancies.

Return Profile

20% - 25%

SECTOR: SERVICES

IOA: COMMUNITY BASED CULTURAL TOURISM

Investment timeframe

Medium Term (5-10 years)

Regulatory Environment

- >Namibia Tourism Board Act, 2000
- >Namibia Nature Conservation Amendment Act, 2017
- >National Community-Based Natural Resource Management Program (CBNRM)

Policy Environment

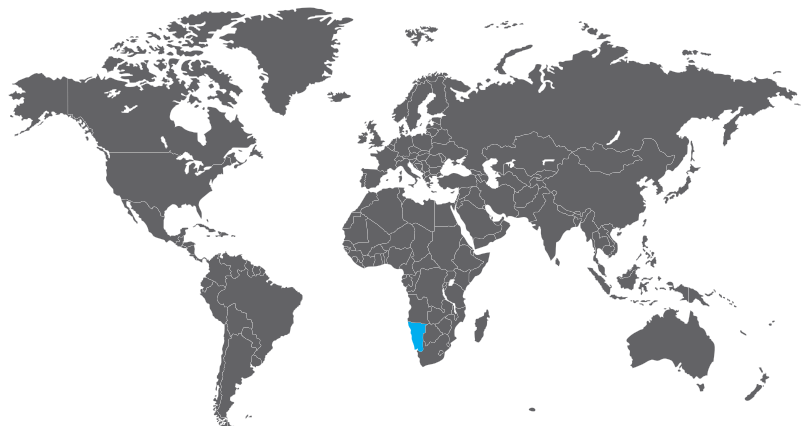
Harambee Prosperity Plan II, 2021: With the aim of attracting investors to Communal Areas, Activity 4 of the economic advancement's goal 2 seeks to review currently challenging investment conditions and harmonise relevant pieces of legislation.

Partner Environment

Ministry of Environment and Tourism (MET): Promotes biodiversity conservation in the environment through the sustainable utilization of natural resources and tourism development for the maximum social and economic benefit of citizens.
Namibia Tourism Board (NTB): Namibia Government agency responsible for bringing together both the private and public sector in implementing the national policy on tourism.

Obstacles to Scale

The current land ownership and tenure property systems in communal areas are not conducive to attracting quality investments, as investors face more legislative hurdles when investing in communal areas compared to other areas. This obstacle is being addressed by the Namibia Investment Promotion and Development Board.



SECTOR: SERVICES

IOA: COLD STORAGE PORT FACILITIES FOR AGRI-PRODUCE

Business Model

Develop cold storage facilities at the port of Walvis Bay (and others, as emerging) for agri-produce to create a temperature controlled supply chain.

Potential Outcomes

- > Position Namibia as a transshipment gateway providing high quality and affordable produce for Southern African Development Community (SADC) markets.
- > Enhanced port traffic and revenue, and improved strategic logistical significance of Walvis Bays port in the region, leading to generally greater economic activity in Namibia.
- > Reduced losses of perishable products due to increased access to storage facilities.

SDG Alignment

- > Direct: 9,2
- > Indirect: 8,12,14

SDG Indicators

- 9.1.2 Passenger and freight volumes, by mode of transport.
- 2.3.1 Volume of production per labour unit by classes of farming/pastoral/forestry enterprise size.

Development Need

- > Namibia lacks adequate storage facilities that allow for agricultural value addition. Cold storage facilities needed to maintain the lifespan of fresh produce are limited, which results in raw products being exported and re-imported into the country for value addition.
- > In order for Namibia to leverage AfCFTA opportunities, it needs to become a commercial gateway where refrigerated container trade involves the imports of food products for landlocked African markets. The level of refrigerated container activity is related to market size and economic development.

Priority subregions

Erongo and //Karas regions

Users or beneficiaries

Direct: Commercial agri-producers, national and regional retailers

Market Sizing

Namibia currently has a cold storage capacity of 12,500 tonnes; the country's market potential necessitates ramping up the capacity to 25,000 tonnes.
In 2020 / 2021, the ports of Walvis Bay and Lüderitz handled 135,194 TEU's (20-foot container boxes), which is a 10% increase in comparison to the 128,779 TEU's handled in 2019 / 2020.
Zambia, Angola, Democratic Republic of Congo, Botswana and Zimbabwe are the main markets for transit cargo by volume at the Walvis Bay port.

Return Profile

15% - 20% (in IRR)

Investment timeframe

Medium Term (5-10 years)

Financial Environment

Fiscal incentives: In 2020, the Ministry of Finance removed all fiscal incentives. The Ministry of Industrialization and Trade is negotiating for a new regime with the Ministry of Finance. The Namibia Investment Promotion and Development Board is facilitating the urgent conclusion of the incentives.

Regulatory Environment

- > Cold Storage Works and Abattoirs Proclamation, 1921
- > Namibia Ports Authority Act, 1994
- > Atmospheric Pollution Prevention Ordinance 11, 1976

SECTOR: AGRICULTURE (FOOD & BEVERAGE)

IOA: COLD STORAGE PORT FACILITIES FOR AGRI-PRODUCE

Policy Environment

- >Food and Nutrition Policy, 1995
- >Food Safety Policy, 2014

Partner Environment

Investors: Development Bank of Namibia, the Namibian Industrial Development Agency (NIDA) and Agribank. GIPF Fund managers with a mandate in agribusiness and infrastructure, such as Musa Capital Namibia; Ino-Harith Capital; EOS Capital and Mergence Namibia Infrastructure Fund.

Public Public Partnerships: Walvis Bay Corridor Group (WBCG)

Government: Namibian Ports Authority (NPA), Namibian Ports Authority (NamPort), Ministry of Agriculture, Water and Land Reform and Namibian Agronomic Board (NAB)

Obstacles to Scale

The monopolistic situation of the port in Walvis Bay by the Namibian State owned operator can be a risk for private sector involvement, especially for long-term investments, given resultant uncertainties.

SECTOR: SERVICES

IOA: LARGE SCALE RAIL INFRASTRUCTURE FOR CARGO

Business Model

Through PPP model, upgrade existing rail infrastructure to provide improved and additional freight transportation capacity.

Potential Outcomes

- > Improved and more reliable rail operations, which is estimated to make freight transportation 10-15% more efficient and faster with a reduced turnaround time of 7 days.
- > Reduced greenhouse gas emissions by 75%, by moving freight by rail instead of trucks, as railroads are four times more fuel efficient than trucks.
- > Enhanced employment creation, directly or indirectly, including jobs for skilled technicians on railway construction sites, livelihoods earned by the railway side communities and jobs during the operational phase after railway upgrades are complete.

SDG Alignment

- > Direct: 9
- > Indirect: 8,13,15

SDG Indicators

- > 9.1.2 Passenger and freight volumes, by mode of transport
- > 9.4.1 CO2 emission per unit of value added
- > 9.a.1 Total official international support (official development assistance plus other official flows) to infrastructure

Development Need

- > Due to limited attention, Namibia's railway subsector has become characterised by dilapidated infrastructure and aged and obsolete locomotives. Since the country's independence in 1990, Namibia extended its railway lines by only 300 km, from 2,372 km to 2,687 km.
- > Namibia's railroad system is only able to haul 15-20% of the total freight market. The current service is unproductive and recent annual freight volumes have not increased despite more than doubling the number of available locomotives.
- > Freight on Namibia's railroad system has an average wagon turnaround time of 10 days, which makes it slow and not competitive compared to road transport.

Priority subregions

Erongo and //Karas

Users or beneficiaries

Direct: Proportion of individuals that need access to affordable housing
Indirect: Local Authorities and municipalities who aim to delivery formal services

Market Sizing

- > Namibia's railway network transports 1.2 billion tonne-kilometres of cargo annually. Namibia's railway network transports approximately 1.2 billion tonne-kilometres of cargo annually. In 2017, Namibia's railway system moved 1.58 million metric tons of various commodities.
- > Namibia's railroad system is only able to haul 15-20% of the total freight market.

Return Profile

10% - 15%

Investment timeframe

Long Term (+10 years)

Financial Environment

Fiscal incentives: For registered manufacturers, allowance is made for land-based transportation by rail of 25% deduction from total cost.

Regulatory Environment

- National Transport Services Holding Company Act, 1998
- > Namibian Transport Advisory Board Act, 1991
 - > Road Traffic and Transport Act, 1999
 - > Road Fund Administration Act, 1999
 - > Roads Ordinance 17, 1972

SECTOR: AGRICULTURE (FOOD & BEVERAGE)

IOA: LARGE SCALE RAIL INFRASTRUCTURE FOR CARGO

Policy Environment

>TransNamib is the sole rail operator in Namibia by legislation; it owns the rolling stock and equipment. However, maintenance of the track in the Walvis Bay corridors is performed by the private sector.

>White Paper on Transport Policy, 1995: Outlines liberalisation plans of the rail market to introduce private sector participation

Partner Environment

Private: GIPF Fund Managers with an infrastructure mandate

PPP: Walvis Bay Corridor Group

Public: TransNamib

Obstacles to Scale

Across African contexts, the complexity and risks associated with concessions may limit private sector interest in infrastructure construction and for railway operations.

9. SECTOR 4: EDUCATION

9.1. Why education?

The Africa SDG Index and Dashboards Report of 2019, which reported on Namibia's progress in achieving

quality education (SDG 4) indicates that the country still faces "significant challenges" in achieving this SDG. However, trends suggest that the country is "moderately improving" in its progress.



4 QUALITY EDUCATION



Major challenges Significant challenges Challenges remain SDG achieved

Decreasing Stagnating Moderately improving On track or maintaining SDG achievement

Namibia's NDP5 highlights education as one of the Namibian Government's five "game changers". It reports the government's acute awareness of the vital importance of education and its potential to act as a catalyst for sustainable economic growth. This is of particular importance, given that 37% of Namibia's population is between the ages of 16 and 35, and the country records a youth unemployment rate of 39%. This has been largely attributed to the fact that Namibia's youth is under-skilled and lacks the technical skills that are a precondition for becoming an industrialised nation.

formation and Expansion Strategy has been developed by the Namibian Government. This strategy details the costing of developing the industry through expanding physical infrastructure and capacity building, which is estimated at N\$6.9 billion. The strategy proposes that financing be sourced from a number of areas; 84% from the Namibian Government (N\$5.8 billion), 15% from a VET levy (N\$1 billion), and 2% from donors (N\$138 million).

Namibia has made considerable progress in providing its citizens with inclusive, equitable quality education, particularly at the primary education level. However, the quality of education is largely still a major point of concern. High levels of grade repetition and drop-out rates continue to characterise the secondary schooling level, particularly in remote and rural areas. Subsequently, it is estimated that approximately 19% of matriculants are able to transition from secondary to tertiary education.

It should, however, be noted that research by the World Bank indicates that although TVET gives youth, especially women, increased chances to obtain employment, returns of a quality secondary level education are much higher than those of TVET. This is mainly attributed to the unit cost of TVET in comparison to that of secondary level education. As such, investment in vocational training very seldom justifies the investment.

More recent research has also indicated that some of the biggest obstacles to Namibia's tertiary education system is a lack of infrastructure, quality curricula and a lack of international expertise. Research would suggest that by increasing the quality of Namibia's tertiary education system and its accessibility could result in the diversification of economic sectors, thereby accelerating its internationalisation process.



In order to achieve the objectives, set within the HPP, NDP5 and, more broadly Vision 2030, a TVET Trans-

Services sector SAM multiplier analysis

The economic and social impact of each sector was determined based on Namibia's most recent SAM data (2013). Although the sector and sub-sector specifications are constrained by the structure of the SAM, the framework results from the SAM multiplier analysis provide useful statistics on the sectors that can maximise the developmental outcomes.

Table 36 indicates the impact that an increase in final demand will have on GDP, output, and income by sector. The data indicates that an increase in the final demand for services sectors, such as trade and tourism, health, education and public administration, and communication are most likely to generate profound multipliers on output, GDP, and income.

Table 36: Namibia output, GDP and income multipliers

Sector	Output	GDP	Income
C-Commercial agri-developments	1.2000	0.6830	0.6000
C-Traditional agriculture	1.9917	1.3544	1.2269
C-Fishing	1.6332	0.8090	0.6052
C-Other mining	1.8399	0.9423	0.6869
C-Diamond mining	1.1579	0.8825	0.5727
C-Food, beverages, tobacco	1.3438	0.5860	0.4352
C-Textiles and clothing	0.5873	0.2884	0.2045
C-Wood and paper	0.5513	0.2760	0.2151
C-Petroleum	0.0000	0.0000	0.0000
C-Chemicals and pharmaceuticals	0.3432	0.2091	0.1396
C-Rubber and plastic products	0.3123	0.1852	0.1322
C-Metals and minerals	1.5680	0.7664	0.5522
C-Machinery and equipment	0.0562	0.0330	0.0236
C-Diamond processing	2.1541	0.9568	0.6520
C-Electricity	1.4654	0.7138	0.5354
C-Water	2.0768	1.160	0.8397
C-Construction	2.0116	0.8383	0.5801
C-Transport	1.4329	0.6829	0.5141
C-Communication	2.1088	1.2204	0.8638
C-Finance and insurance	1.9204	1.2558	0.8732
C-Real estate	1.5612	1.1259	0.7206
C-Other private services	2.1035	1.4684	1.2593
C-Health, education, public admin	2.1676	1.3220	1.1108
C-Trade and tourism	2.1036	1.0944	0.8366

Source: Monasa Advisory & Associates; DNA Economics; Six Capitals; 2021. SAM Multiplier Analysis for the Namibia SDG Investor Map study in Namibia.

A disaggregation of the income multipliers by household income shows that an increase in final demand for traditional agriculture, as well as services commodities (e.g., other private services, health, education and public administration and trade and tourism) will generate the highest impact among low-income households. For unskilled labour, increases in final demand for services commodities (e.g., other private services and health, education and public administration) will induce the largest income multipliers, followed by the agriculture commodities (see Figure 21 below).

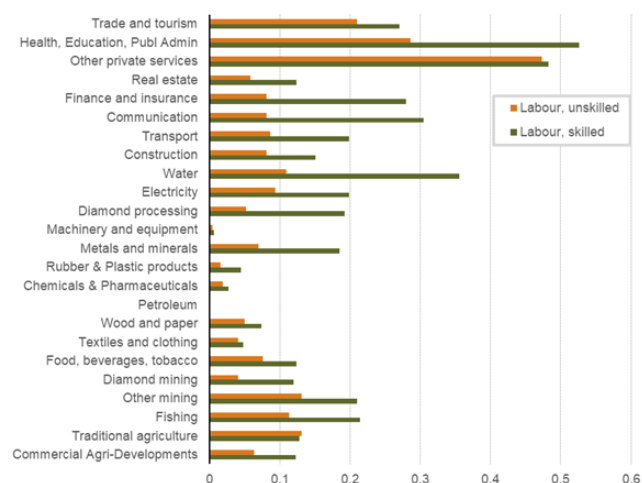


Figure 21: Namibia's SAM income multipliers for skilled vs. unskilled labour, 2013 in millions

Gender inequality and education

Namibia made significant progress on several gender parity indices. For example, in 2006, Namibia's Gender Gap Index was about 0.68 (out of a maximum of 1) compared to 0.76 in 2016, ranking 14th globally. The index measures the gender gap in areas, such as educational opportunities and participation, health (life expectancy and sex ratio at birth), economic opportunities and participation by women, and political empowerment of women. Figure 22 shows that Namibia is performing particularly well in education and health, (scores of between 0.98-1.0). Additionally, according to the National Council of Higher Education Namibia Higher Education Statistical Yearbook there were 179 female students for every 100 male students enrolled in a higher education institution in Namibia in 2016. This is echoed by a Unisa study that estimated a mean proportion of 62% female students compared to 38% of male students enrolled in tertiary institutions over a 26-year period 1992 – 2018

	2016		2006	
	Rank	Score	Rank	Score
Global Gender Gap Index	14	0.765	38	0.686
Economic participation and opportunity	20	0.781	57	0.614
Educational attainment	35	0.999	43	0.993
Health and survival	1	0.980	93	0.967
Political empowerment	31	0.299	29	0.172
Rank out of	144		115	

Figure 22: Namibia gender gap index and its components

9.2. Sub-sector priorities: Formal education

The NSA defines formal education as “full-time attendance at any regular educational institution, public or private, for systematic instruction”. The various categories of formal education used by NSA during the 2011 population census were: pre-primary, primary schools, secondary or high schools, technical schools, agricultural institutions, teacher training colleges, polytechnics and universities.

9.2.1. Higher education (formal education)

Namibia’s goal for higher education includes promoting the establishment of centres of excellence, more applied research, and additional institutions of higher learning. The quality of postgraduate education in Namibia, however, is often perceived as underdeveloped, with serious concerns regarding its quality and relevance.

There are also considerable inequalities of access to university education in terms of social class, geographical location and marginalised groups. Access to student financing among the rural lower- to middle-income bracket has become increasingly problematic. For example, in 2019 the Namibian Government had to raise more than N\$400 million to bail out more than 12 000 students that were left without funding. In 2018, the University of Namibia received N\$1.2 billion from the state, but in 2019 only received N\$900 million due to budget cuts.

The three desired outcomes for higher education, as set out in the NDP5, is to improve the tertiary edu-

cation completion rate to 70%; increase funding of postgraduate students in priority areas to 85%; as well as increase educational institutions with access to ICT to 83%. These outcomes will be achieved through specific strategies, such as widening access to higher education through equity and inclusion; targeting public awareness, specifically towards rural areas; and increasing awareness and availability of student funding.

Another strategy is to improve the quality of teaching and learning in universities. Such as with TVET learning, professional development of lecturers will be given, as well as involving employers to discern labour market needs.

The government also aims to strengthen research capacity at higher education institutions by implementing research development programmes. These programmes will encourage locally-relevant research and promote entrepreneurship. This research will be supported by the construction of research libraries and laboratories.

Finally, the government seeks to promote private sector investment in higher education, by creating a conducive environment for the establishment of new institutions, and by promoting and facilitating internship programs.

9.2.1.1. Priority sub-region: Higher education (formal education)

Due to Namibia having only two official universities, namely UNAM and NUST, and both being situated in Windhoek, it stands to reason that the investment focus would be in the Khomas region.

Both the MoF and NIDA have highlighted student accommodation as a priority area of investment within this sub-sector, as shown in table 37.



#	Region	Prioritised development of education	Focus area	Project name	Project size	Comments
1	Khomas	Yes	Higher education	Development of student village	N\$1 billion	MHETI has highlighted a need for more student accommodation at UNAM and NUST, which are currently ill-equipped for the approximately 38 200 enrolled students. The campus accommodation can currently only cater for 2 280 students at UNAM and NUST combined. As such, they propose a student village be constructed that would create an additional 2 200 to 3 000 units. This will be developed through the PPP route.
2	Khomas	Yes	Higher education	Windhoek Central Hospital, student accommodation renovation and maintenance	N\$ 72 million	MHSS intends to refurbish and renovate the accommodation facilities in the four standing buildings/ tower blocks in Windhoek Central Hospital. Each of the four tower blocks have 80 rooms (eight floors with ten rooms on each floor). The scope of work for the private developer would be to refurbish the existing accommodation facilities at the Windhoek Central Hospital, and to maintain the facilities over an agreed PPP concession period.

Table 37: Candidate higher education PPP projects in Namibia as identified by the MoF and NIDA, Namibia

Higher education (formal education): investment opportunity areas

One IOA has been identified for the higher education sub-sector. The IOA is aimed at providing affordable

higher education student accommodation. The IOA's business model type and a description of the business model have also been set out in table 38.

Table 38: IOA for Higher Education

Investment opportunity areas	Business model type	Business model description
Affordable higher education student accommodation	<input type="checkbox"/> Product <input type="checkbox"/> Service <input checked="" type="checkbox"/> Infrastructure <input type="checkbox"/> Technology <input type="checkbox"/> Financing	<p>> Invest in developments and companies that provide and operate affordable student accommodation infrastructure</p> <p>> Example: Emona Student Village was established as the first private student accommodation on the UNAM campus. Emona facilities have a total student accommodation capacity of 1 880 students,</p>



SECTOR: EDUCATION

IOA: AFFORDABLE HIGHER EDUCATION STUDENT ACCOMMODATION

Business Model
Develop and operate student accommodation infrastructure that serves tertiary education institutions.
Potential Outcomes
>Greater access to higher education for lower- and middle-income students by allowing access to affordable accommodation. >Improved learning environments for students at close proximity to universities.
SDG Alignment
Direct: 4,8 Indirect: 9,10
SDG Indicators
>4.3.1 Participation rate of youth and adults in formal and non-formal education and training in the previous 12 months, by sex. >4.5.1 Parity indices (female/male, rural/urban, bottom/top wealth quintile and others such as disability status, indigenous peoples and conflict-affected, as data become available) for all education indicators on this list that can be disaggregated. 8.5.2 Unemployment rate, by sex, age and persons with disabilities. 8.6.1 Proportion of youth (aged 15-24 years) not in education, employment or training.
Development Need
Students accommodated off-campus are exposed to market rates, which are unaffordable for many young Namibians. The students may also suffer from uncondusive learning environments and a lack of supporting infrastructure, which would be provided at on-campus accommodation.
Priority subregions
Khomas Region Erongo Region Oshana Region
Users or beneficiaries
> Direct: Lower/ lower-middle-income students who have completed secondary education attending full-time lecturers. > Indirect: Local business that have primary markets within student eco-systems.
Market Sizing
Considering the current shortfall of student accommodation, amounting to 15,000 units annually, and the current rental paid by students (USD 250-272 per month), there is a potential market of approximately USD 46.3 million annually.
Return Profile
10% - 15%
Investment timeframe
Long Term (10+ years)
Regulatory Environment
Education Act, 2001 Higher Education Act, 2003
Policy Environment
National Housing Policy, 1991 5th National Development Plan, 2017

SECTOR: EDUCATION

IOA: AFFORDABLE HIGHER EDUCATION STUDENT ACCOMMODATION

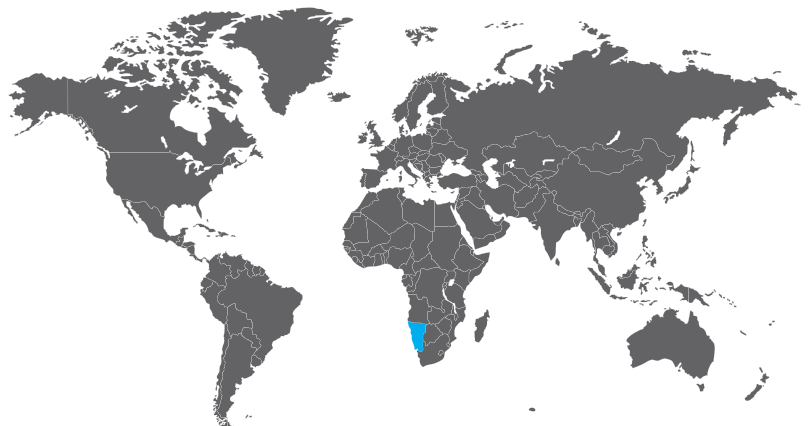
Partner Environment

Public: Ministry of Higher Education, Technology and Innovation, private and public higher education institutions, such as University of Namibia, Namibia University of Science and Technology and the international University of Management.

Financial incentives: National Students Assistance Fund (NSFAF) provides financial assistance to eligible students, which can, among others, be used to cover accommodation costs.

Obstacles to Scale

Cost of land acquisition and basic infrastructure development in Namibia, which results in high capital expenses for student accommodation.



SECTOR: EDUCATION

IOA: PRIVATE PRIMARY AND SECONDARY SCHOOL CENTRES

Business Model
Establish or acquire independent affordable private school chains in the primary and secondary education phases. This model could also cater for a portion of early childhood development centers.
Potential Outcomes
<ul style="list-style-type: none"> >Enhanced quality of education delivery at the primary and secondary level, allowing for better performances and lower levels of repetition across all grades. >Increased quality and number of secondary school graduates (Grade 12), which leads to higher eligibility for tertiary studies and greater employability of young Namibians.
SDG Alignment
<ul style="list-style-type: none"> > Direct: 4 > Indirect: 8,9,5
SDG Indicators
<ul style="list-style-type: none"> >4.1.1 Proportion of children and young people (a) in grades 2/3; (b) at the end of primary; and (c) at the end of lower secondary achieving at least a minimum proficiency level in (i) reading and (ii) mathematics, by sex >4.1.2 Completion rate (primary education, lower secondary education, upper secondary education) >4.3.1 Participation rate of youth and adults in formal and non-formal education and training in the previous 12 months, by sex >4.6.1 Proportion of population in a given age group achieving at least a fixed level of proficiency in functional (a) literacy and (b) numeracy skills, by sex >4.c.1 Proportion of teachers with the minimum required qualifications, by education level
Development Need
<ul style="list-style-type: none"> >5% of Namibia's youth have no formal education and 19% have attained at most incomplete primary education, meaning that a quarter of 15-24 year-olds have not completed primary education. Only a small proportion of students who enrol in primary school proceed to and complete secondary school. >7% of primary school aged children are out of school in Namibia. The country's net attendance ratio is only 50% at the secondary level, resulting in the fact that, inter alia, 13% of Namibians remain illiterate. >High levels of grade repetition and drop-out rates characterise the secondary schooling level. It is estimated that only 19% of Grade 12 learners are able to transition from secondary to tertiary education.
Priority subregions
Khomas, Erongo, Omusati and Ohangwena regions
Users or beneficiaries
<p>Direct: learners, school operators and entrepreneurs</p> <p>Indirect: Local communities</p>
Market Sizing
<ul style="list-style-type: none"> >Nearly a third of Namibia's population requires mandatory basic education. >Namibia's population is expected to increase to 3,113,643 by 2030. >As at 2018, 36.5% (880,979) of the population is under the age of 15 and 22.6% (545,483) of Namibia's population is between the age of 5 and 14, which is the primary school going age. This means that almost a third of the national population requires mandatory basic education in line with the constitution of the Republic of Namibia.
Return Profile
20% - 25%
Investment timeframe
Long Term (+10 years)

SECTOR: EDUCATION

IOA: PRIVATE PRIMARY AND SECONDARY SCHOOL CENTRES

Financial Environment

Financial incentives: The Government provides subsidies to private schools based on a funding formula

Partner Environment

Private: EOS Capital, Musa Capital

Public: Ministry of Education

Regulatory Environment

Education Act, 2001

>Basic Education Act, 2020

Policy Environment

>Inclusive Education Policy, 2013

>Ministry of Education, Arts and Culture, Strategic Plan, 2016

Obstacles to Scale

Limited market size for private school centers in Namibia. Providers may consider regional approaches in the Southern African Development Community (SADC) region to reach scale.



10. SECTOR 5: HEALTH

10.1. Why health sector?

The Africa SDG Index and Dashboards Report of 2019, which reported on Namibia’s progress in achieving SDG 3 (Good Health and Well-being) indicates that the country still has “major challenges” in its quest to achieve this SDG. However, the trends suggest that the country is “moderately improving” in its progress.

living, with access to quality health services. One of Namibia’s strategies for achieving the objectives set in Vision 2030 is to provide affordable and excellent healthcare, and strengthen their fight against HIV/ Aids . In Namibia’s NDP5, the government pledges to improve the country’s health sector and aims to ensure all of Namibia’s citizens have access to quality healthcare by the year 2022.



Figure 23: Namibia’s progress on SDG 3
 Source: SDG Center for Africa and Sustainable Development Solution Network, 2019

Vision 2030 outlines a vision for a healthy, food-secured, breastfeeding nation, where preventable, infectious, and parasitic diseases are under control. Under this vision, Namibians enjoy a high standard of

Under the HPP, the Namibian Government has identified Infant & Maternal Mortality as a sub-pillar that will be receiving attention over the lifespan of the plan.

With an estimated total health expenditure of approximately 9% of Namibia's GDP, a recent report by the World Bank indicates that the Namibian Government's expenditure on health is high and consistent with the Abuja target of 15%. Namibia's healthcare system is, however, impeded by substantial inefficiencies and inequalities, resulting in poor health outcomes.

Some of the main challenges mentioned are a lack of resources (largely human resources), and lack of productivity, resulting in idle resources for the government.

The Namibian Government has identified three strategies it will employ in order to achieve good health and wellbeing. The strategies are notably: 1) increasing infrastructure development and resource management in the health sector; 2) ensuring the wellbeing of Namibian people, and 3) improving talent management.

Health sector SAM multiplier analysis

The economic and social impact of each sector was determined based on Namibia's most recent SAM data (2013). Although the sector and sub-sector specifications are constrained by the structure of the SAM, the framework results from the SAM multiplier analysis provide useful statistics on the sectors that can maximise the developmental outcomes.

Table 39 indicates the impact that an increase in final demand will have on GDP, output, and income by sector. The data indicates that an increase in the final demand for services sectors, such as trade and tourism, health, education and public administration, and communication are most likely to generate profound multipliers on output, GDP, and income.

Table 39: Namibia output, GDP and income multipliers

Sector	Output	GDP	Income
C-Commercial agri-developments	1.2000	0.6830	0.6000
C-Traditional agriculture	1.9917	1.3544	1.2269
C-Fishing	1.6332	0.8090	0.6052
C-Other mining	1.8399	0.9423	0.6869
C-Diamond mining	1.1579	0.8825	0.5727
C-Food, beverages, tobacco	1.3438	0.5860	0.4352
C-Textiles and clothing	0.5873	0.2884	0.2045
C-Wood and paper	0.5513	0.2760	0.2151
C-Petroleum	0.0000	0.0000	0.0000
C-Chemicals and pharmaceuticals	0.3432	0.2091	0.1396
C-Rubber and plastic products	0.3123	0.1852	0.1322
C-Metals and minerals	1.5680	0.7664	0.5522
C-Machinery and equipment	0.0562	0.0330	0.0236
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C-Electricity	1.4654	0.7138	0.5354
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C-Construction	2.0116	0.8383	0.5801
C-Transport	1.4329	0.6829	0.5141
C-Communication	2.1088	1.2204	0.8638
C-Finance and insurance	1.9204	1.2558	0.8732
C-Real estate	1.5612	1.1259	0.7206
C-Other private services	2.1035	1.4684	1.2593
C-Health, education, public admin	2.1676	1.3220	1.1108
C-Trade and tourism	2.1036	1.0944	0.8366

Source: Monasa Advisory & Associates; DNA Economics; Six Capitals; 2021. SAM Multiplier Analysis for the Namibia SDG Investor Map study in Namibia.

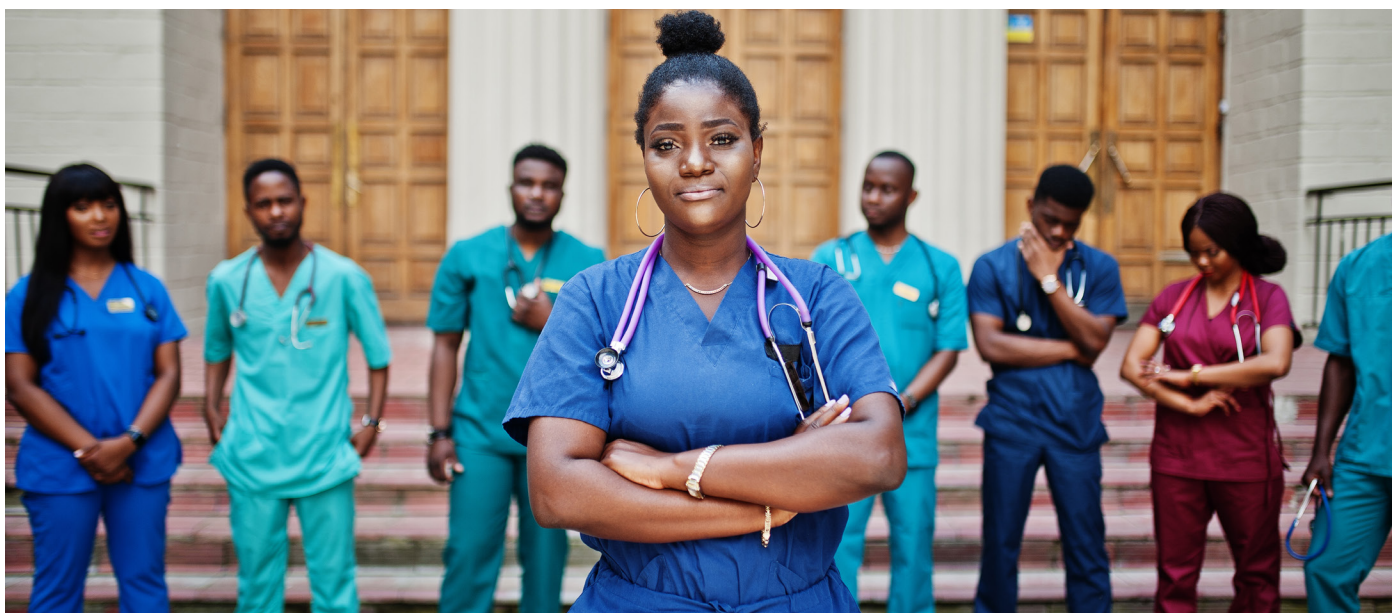


A disaggregation of the income multipliers by household income shows that an increase in final demand for traditional agriculture, as well as services commodities (e.g., other private services, health, education and public administration and trade and tourism) will generate the highest impact among low-income

households. For unskilled labour, increases in final demand for services commodities (e.g., other private services and health, education and public administration) will induce the largest income multipliers, followed by the agriculture commodities (see figure 24).



Figure 24: Namibia's SAM income multipliers for skilled vs. unskilled labour, 2013 in millions



Gender inequality and health

Namibia made significant progress on several gender parity indices. For example, in 2006, Namibia's Gender Gap Index was about 0.68 (out of a maximum of 1) compared to 0.76 in 2016, ranking 14th globally. The index measures the gender gap in areas, such as

educational opportunities and participation, health (life expectancy and sex ratio at birth), economic opportunities and participation by women, and political empowerment of women. Figure 25 shows that Namibia is performing particularly well in education and health, (scores of between 0.98-1.0

	2016		2006	
	Rank	Score	Rank	Score
Global Gender Gap Index	14	0.765	38	0.686
Economic participation and opportunity	20	0.781	57	0.614
Educational attainment	35	0.999	43	0.993
Health and survival	1	0.980	93	0.967
Political empowerment	31	0.299	29	0.172
Rank out of	144		115	

Figure 25 Namibia gender gap index and its components

10.1.1.1. Priority sub-region: Healthcare facilities

There is no existing dedicated specialist facility in Namibia for treatment of trauma patients. Additionally, there is an acute shortage of Intensive Care Unit (ICU) beds in the country to accommodate the casualties from motor vehicle accidents.

Statistics from the Motor Vehicle Accident Fund (MVA) of Namibia show that in 2018 Namibia ranked first in Africa in road accidents, with more than 19 000 accidents occurring every year, leaving 700 dead

and 7 000 others disabled.

Healthcare: investment opportunity areas

One IOA has been identified for the healthcare facilities sub-sector. The IOA is aimed at providing infrastructure for acute trauma and rehabilitation facilities.

The IOA's business model type and a description of the business model have also been set out in table 40.

Investment opportunity area	Business model type	Business model description
Acute trauma and rehabilitation health facility	<input type="checkbox"/> Product <input type="checkbox"/> Service <input type="checkbox"/> Infrastructure <input type="checkbox"/> Technology <input type="checkbox"/> Financing	> Invest in the development and operation of an acute trauma and rehabilitation health facility specifically for motor vehicle accident survivors

Table 40: IOA Health Care Facilities

SECTOR: HEALTHCARE

IOA: ESSENTIAL MEDICINE AND DRUG MANUFACTURING

Business Model
Establish and operate manufacturing facilities producing essential medicine and drugs with a specific focus on intravenous fluids products.
Potential Outcomes
<ul style="list-style-type: none"> >Improved essential drugs and pharmaceuticals security, and reduced dependency on imports of medicine. >Reduced dependency of public and private hospitals on imports of hospital supplies. >Greater efficiency and sustainability of Namibia's health care services, furthering the industrial development of the country.
SDG Alignment
Direct: 3 Indirect: 9,8
SDG Indicators
3.b.3 Proportion of health facilities that have a core set of relevant essential medicines available and affordable on a sustainable basis 3.8.1 Coverage of essential health services.
Development Need
Namibia is largely dependent on imports of essential drugs, exposing the country to supply risks and increasing costs for Namibia's population. For intravenous fluids, no local production exists and all products are imported mainly from South Africa.
Priority subregions
Otjozondjupa, Zambezi, Ohangwena and Oshikoto regions.
Users or beneficiaries
<ul style="list-style-type: none"> > Direct: patients who need more affordable essential medication for their illnesses. > Indirect: significant contribution to GDP and employment.
Market Sizing
The public pharmaceutical market in Namibia is worth NAD 2.6 billion (USD 175 million) annually, as of 2017. The public market is divided into the essential medicine's market and the antiretroviral (ARV) market, which is roughly at a 2:1 ratio.
Return Profile
20% - 25%
Investment timeframe
Long Term (10+ years)
Regulatory Environment
Medicines and Related Substances Control Act, 2003: Public Private Partnership Act, 2017
Policy Environment
Harambee Prosperity Plan 2, 2021: Outlines that the Government aims to improve and maintain a service level of 90% at the Central Medical Stores, by ensuring timely delivery and availability of pharmaceuticals and clinical supplies at health facilities.
Partner Environment
Public: Namibia Industrialisation and Development Agency (NIDA) intends to develop the infrastructure required to manufacture essential drugs in the Otjozondjupa Region through a Public Private Partnership. Ministry of Health and Social Services. Investors: EOS Capital, VPB Capital Operators: Fabupharm, which has grown to a fully-fledged pharmaceutical manufacturer.
Obstacles to Scale
The Ministry of Health through the Medicines Regulatory Council, tightly controls the health sector, making private sector involvement challenging especially for the manufacturing of medicines.

SECTOR: HEALTHCARE

IOA: ACUTE TRAUMA AND REHABILITATION CENTRES

Business Model

Construct and operate specialised health facilities to provide trauma and rehabilitation care to motor vehicle accident survivors.

Potential Outcomes

- >Increased availability of ICU beds for motor vehicle accident victims.
- >Enhanced expert capacity to provide trauma and rehabilitation care specifically for motor vehicle accident victims.
- >Greater employment opportunities for trauma health professionals and other medical experts.

SDG Alignment

Direct: 3
Indirect: 10, 8

SDG Indicators

3.6.1 Death rate due to road traffic injuries
3.8.1 Coverage of essential health services

Development Need

- >An estimated 19,000 road accidents occur every year in Namibia, leaving 700 dead and 7,000 others with lasting physical disabilities. This is the proportionally highest number of accidents of any African country.
- >Namibia lacks a dedicated specialist facility for treatment of trauma patients. The district hospitals have limited facilities, equipment and human resources to manage trauma effectively. There is an acute shortage of ICU beds in the hospitals to accommodate the casualties from road accidents.
- >Socio-economic consequences from the loss of employment and loss of breadwinners due to inadequate trauma rehabilitation puts major financial strains on families and the Government of Namibia.

Priority subregions

Countrywide

Users or beneficiaries

> Direct: motor vehicle accident patients

Market Sizing

Out of the total annual spending of USD 14.3 million by the Motor Vehicle Accident Fund (MVAf) of Namibia on patients from motor vehicle accidents, more than 50% is accounted for by payments made to public and private hospitals as well as rehabilitation centres for the treatment of patients.

Return Profile

20% - 25%

Investment timeframe

Long Term (10+ years)

Regulatory Environment

National Health Act, 2015
Hospitals and Health Facilities Act, 1994
Medical Aid Funds Act, 1995
Motor Vehicle Accident Fund Act, 2007
Public Private Partnership Act, 2017

Policy Environment

National Health Policy Framework, 2010

Partner Environment

Public: The Motor Vehicle Accident Fund of Namibia intends to enter into a Public Private Partnership with the private sector to establish acute trauma & rehabilitation facilities.
Investors: VPB Capital, EOS Capital

Obstacles to Scale

Uncertain frameworks and public-private dialogues -

Uncertain policy and regulatory regime supporting private sector engagement in healthcare.

11. IMPACT OF COVID-19 ACROSS SECTORS



11.1. Infrastructure

The COVID-19 outbreak has severely impacted every aspect of society, and the economy, but various sectors and groups of society have been more severely impacted than others. Equitable access to functioning, critical infrastructure is therefore imperative in the response to the coronavirus pandemic, particularly for groups and sectors more acutely affected. Low-income households, particularly those in rural or remote areas, are more vulnerable to the health implications of COVID-19. These households are more likely to have limited access to water utilities, sanitation services and electricity than their wealthier counterparts. The NSA states that only 68.6% of households in rural areas have access to clean drinking water, compared to 97% of their urban counterparts. With sections of the society lacking full access to clean water for frequent hand washing and cleaning, which are vital to limiting the spread of the virus, the impact of COVID-19 on these groups intensifies. The access to healthcare in Namibia is relatively good, with over 76% of the population living within a 10km radius of a healthcare facility. However, these facilities are unjustly dispersed, causing inequitable access to healthcare. A majority of healthcare facilities are found to be concentrated in urban areas, and are uniformly understaffed across all regions.

Citizens' equitable access to fundamental and critical infrastructure, such as healthcare facilities, water utilities and sanitation services, is imperative to the country's adequate response to the COVID-19

pandemic. This is important not only for the public health, but for the ultimate wellbeing of the community.

11.2. Agriculture

The agricultural sector, and all activities herein, were classified as an essential service during the strict lockdown periods in the fight against COVID-19. However, this did not shield the sector from the impact and enduring uncertainty caused by the pandemic. Namibia's Agricultural Union states that minimising disruption to agricultural activities is vital in ensuring food sustainability and preventing adverse effects, such as the loss of jobs and livelihoods. These losses, should they continue, could endanger the rural economy.

The industry is still shrouded in uncertainty surrounding the pandemic, which can put pressure on markets and cause a disruption in the global economy. This disruption will possibly affect export commodities, and could also potentially impact the entire agricultural sector in the country. It is therefore necessary for the Namibian agricultural sector to re-strategise in order to improve or find ways to be resilient and sustainable.

11.3. Services

The COVID-19 pandemic had a severe impact on the tourism industry in Namibia. Under the lockdown regulations introduced in Namibia in response to the pandemic, many restaurants, hotels, lodges, restau-

rants and other services within the tourism industry were closed or partially closed. This resulted in a drastic shedding of jobs within this industry. The closure of borders and temporary inter-regional travel restrictions also had significant implications for the industry.

11.4. Education

The COVID-19 pandemic caused an immense disruption in access to education. Schools across Namibia closed on 14 March 2020, and only reopened on 3 August 2020. This resulted in 755 943 students being kept out of school, the ramifications of which have not yet been quantified.

For younger children within the education system, an absence from school means lack of access to the nutrition they usually receive through school feeding programmes. These programmes benefit 370 000 pupils in schools across Namibia. This might inadvertently contribute to the school drop-out rate, particularly among groups of at-risk and educationally marginalised children. These include children of farm workers, children in remote rural areas, children in informal settlements, and working children.

While the interruption in education will also certainly prove to be academically damaging to older students within the education system, it is believed that older students will be more severely impacted by the deep economic contraction resulting from the COVID-19 pandemic. It is argued that the long-term outlook for young people will also be marred by the high levels

of youth unemployment, coupled by the weak educational expectation that is being exacerbated by the pandemic.

11.5. Health

The outbreak of the COVID-19 pandemic has especially drawn attention to the overburdened and understaffed state of the healthcare sector, throwing into sharp relief the discrepancies between expensive private healthcare facilities and the more accessible, but under-resourced, public sector healthcare facilities.

The outbreak of the virus necessitated the increase in capacity from the healthcare sector. This was of particular importance, as the growing number of COVID-19 patients could easily overcrowd the 85 ICU beds, 8 695 hospital beds and 39 ventilators available in the country. This strain on healthcare facilities not only impeded the response to the pandemic, but the treatment of other diseases, such as TB, diabetes, cancer, and HIV/Aids, among other necessary treatments and procedures for patients not admitted with COVID-19.

COVID-19 emphasised the significance of sustainable investment in the healthcare sector, which should particularly focus on healthcare providers, decent working environments, education, and equipment. This investment is important for both recovery from the pandemic and building future resilience against any shocks to the system; making it more prepared to adequately respond to health emergencies.



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