Catalogue of Projects and Potential Investment Opportunities in Namibia







Table of Contents

and Potential Investment Opportunities	
Energy	
Nampower Renewable Energy Projects	7
135 MW Concentrated Solar Power (CSP) project	
Agriculture	
Neckartal Green Scheme Irrigation Farm	
Zone Green Scheme Irrigation Farm	
Tandjieskoppe Green Scheme Irrigation Farm	20
Transport & Logistics Infrastructure	22
Development of a new international terminal at Hosea Kutako	
International Airport, Windhoek	23
Water	
Development of Desalination plant at the Central Coast	
City of Windhoek Direct Water Reclamation plant	
Otjiwarongo Waste Water Treatment plant	
Housing & Real Estate	
Development of a Student Village	

Private Projects

and Potential Investment Opportunities	35
Renewable Energy	
Schonau Solar Energy	47
Agribusiness	40
AMTA Packhouses	
AMTA Tomato Processing	
Future Yield Hydroponics	
Gibeon Agricultural Scheme	
Kahakwena Smart Cattle Farming	
Kelp Blue	
Ohangwena Cotton Production	
ROOTS Development	
Triple M Quarantine and Feedlot Facilities	
Mining, Mineral Beneficiation & Adjacent Industries	73
Lodestone Mining	
Infrastructure, Logistics & Transport	
Nakathilo Commercial and Logistics Plaza	
Walvis Bay Consolidated Cold Storage	
MTN 4G Infrastructure & Featurephone Assembly	

Public Projects and Potential Investment Opportunities

Public Projects and Potential Investment Opportunities

Energy

4

Project Name: 25 MW Solar PV project



Project Name:	25 MW Solar PV project
Project Location:	Windhoek, Khomas region
Public Entity:	Windhoek municipality
Category:	Energy/Infrastructure

Project overview

The City of Windhoek (CoW) operates a modern electrical distribution network that consists of various sub-systems/substations up to a voltage level of 66kV. The bulk power supply is solely from NamPower, which presents a risk in terms of power supply to the CoW (over reliance on NamPower). The CoW aims to reduce this reliance on Nampower as well as reduce its carbon footprint through the development of alternative renewable energy sources.

The CoW has 52 hectares of land available. It aims to procure an Independent Power Producer (IPP) to develop a 25 MW Solar PV plant on a Public-Private Partnership arrangement (PPP) (Build, Own and Operate (BOO) model) – through a 25-year Power Purchase Agreement (PPA). Through this project, the CoW will encourage greater participation of Namibians at large in the development and implementation of the renewable energy project, and increase access to modern, clean and affordable energy supply to meet the ever-increasing energy demand of all the CoW residents.

Estimated Investment required: USD 28m

Project Readiness:

The project's procurement process is underway, the Request for Qualification (RFQ) was launched in May 2021, and the CoW is finalising the shortlisting of applicants.

Procurement/implementation consideration:

PPP arrangement (Build Own Operate model).

Project Name: Nampower Renewable Energy Projects



Public Entity:	Nampower
Category:	Energy

Namibia's rapid economic growth in recent years has resulted in electricity demand rising faster than energy planners had anticipated. NamPower, the government-owned power utility, operates generation facilities that were constructed in the 1970s. NamPower has three generation plants (Ruacana Hydro plant 347MW, Van Eck thermal plant 120 MW, and Anixas thermal plant 22.5 MW) which generally never produce at full capacity. Peak demand is over 600 MW.

NamPower concluded 14 new Power Purchase Agreements (PPA) of 5MW each with the Independent Power Producers (IPPs) within the renewable energy sector under the Renewable Energy Feed-In Tariffs (REFIT) during the 2016 financial year. Of the 14 IPPs, 13 are operational and supplying NamPower with electricity. NamPower has also increased Namibia's local generation capacity through refurbishments and upgrades to its existing plants from 345 MW to 489.5 MW installed capacity, allowing it to provide a continuous and reliable electricity supply in Namibia.

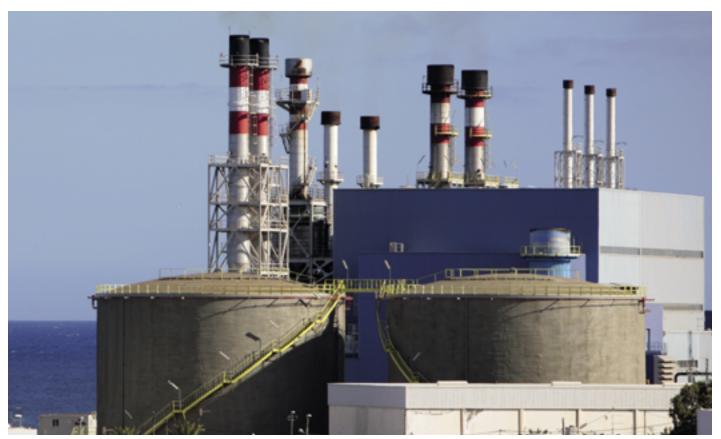
Projects currently under development phase:

• Omburu 20 MW Solar PV Project: The commercial operations date for the power plant was set for 11 March 202. The operations and maintenance teams who will be responsible for the operations and maintenance of the PV plant throughout its 25-year operational period will be appointed.



- 20 MW Khan Solar PV IPP: Construction activities started on 17 January 2021, with the target date for achieving the commercial operations date set for the end of the second quarter of 2022.
- Omburu 58 MW Battery Energy Storage System (BESS): The procurement of the EPC Contractor will be conducted over the coming months. It is expected that the contractor will be appointed during the third quarter of 2022.

• 50 MW Anixas II Power Station: The Engineering, Procurement and Construction (EPC) contractor was appointed to engineer, procure and construct the power station. Commencement of construction works was planned for the first quarter of 2022, with the commercial operations date set for the third quarter of 2023.



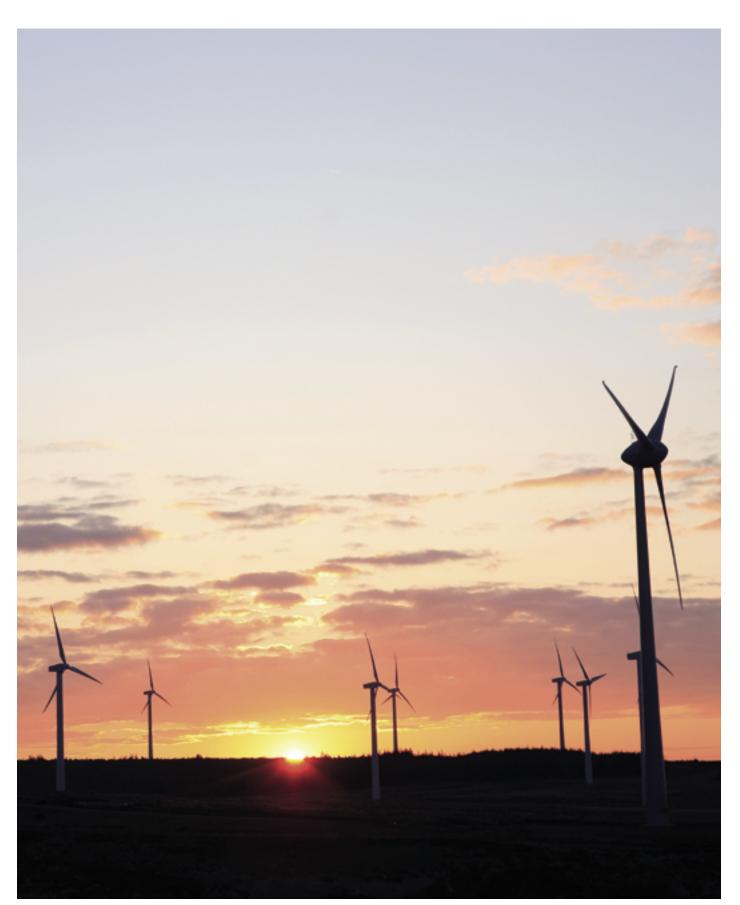
- 40 MW Otjikoto Biomass Power Project: The prequalification process for the procurement of EPC Contractors to construct the power station was completed on 04 October 2021, with 15 (out of 17) potential Contractors shortlisted and notified to that effect. NamPower is finalising the bid documentation and the procurement of EPC Contractor and Fuel Suppliers. The Fuel Suppliers will supply the biomass fuel resource (woodchips) to the power plant. It is expected that the procurement processes for the EPC Contractor to construct and for fuel suppliers was to be concluded successfully in the first quarter of 2022. Nampower is expected to reach the Final Investment Decision (FID) at the end of quarter two this year.
- 40 MW Wind Power Project: Nampower launched the pre-qualification process that is currently underway to shortlist EPC contractors to construct the wind farm in the Rosh Pinah area. Following this, and once the 12 months measured wind resource data becomes available, the bidding document will be issued to select an EPC Contractor.

Looking ahead:

• 50 MW Lüderitz Wind IPP Project: NamPower is facilitating the development of the 50 MW Lüderitz Wind IPP Project, 16.5 km south of the Lüderitz town, between Kolmanskop and the Elizabeth Bay Mine in the //Karas Region. The bidding process to procure an IPP developer was launched in March this year. The project will be implemented on a Build, Own, Operate basis and maintain the power generation facility for an agreed Power Purchase Agreement (PPA) duration.

- The Bidding Documents launched date March 2022.
- Closing date for submission of bids: is 03 June 2022.

Information on the bidding process and bidding documentation for the project could be accessed at: <u>https://www.nampower.com.na/Bids.aspx</u>



Project Name: 135 MW Concentrated Solar Power (CSP) project



Project Name:	135 MW Concentrated Solar Power (CSP) project
Project Location: Public Entity:	Arandis, Erongo region Nampower
Category:	Energy/Infrastructure

Project overview

The implementation of a Concentrated Solar Power (CSP) project would contribute to Namibia's commitments to increase the share of renewable energy as formalised within the National Integrated Resource Plan (NIRP). A techno-economic feasibility study for the development of a CSP plant in Namibia was performed in 2016. This study investigated an alternative option that would provide the same services as a 135MWe CSP plant (with 12 hours of storage) at the Arandis site.

Within the Namibian context, CSP has the potential for integration into the national grid, together with other generation technologies. NamPower has commenced with a solar irradiation assessment program at Arandis, Auas and Kokerboom stations, and results confirm that Namibia has one of the best environments for the installation of CSP collectors for large scale electricity generation.

The technology considered is Parabolic Trough or Central Receiver. Generation capacity of 100 MW – 150 MW is considered optimum. Feasible thermal energy storage capacity of 15 – 17 hours at solar multiples of 2 to 3. NamPower, as the implementer of this project, would be willing to form a Public-Private Partnership (PPP).

Estimated Investment required: USD 965m

Project Readiness: The project has commenced with a feasibility study

Procurement/implementation consideration: PPP arrangement.

Public Projects and Potential Investment Opportunities

Agriculture

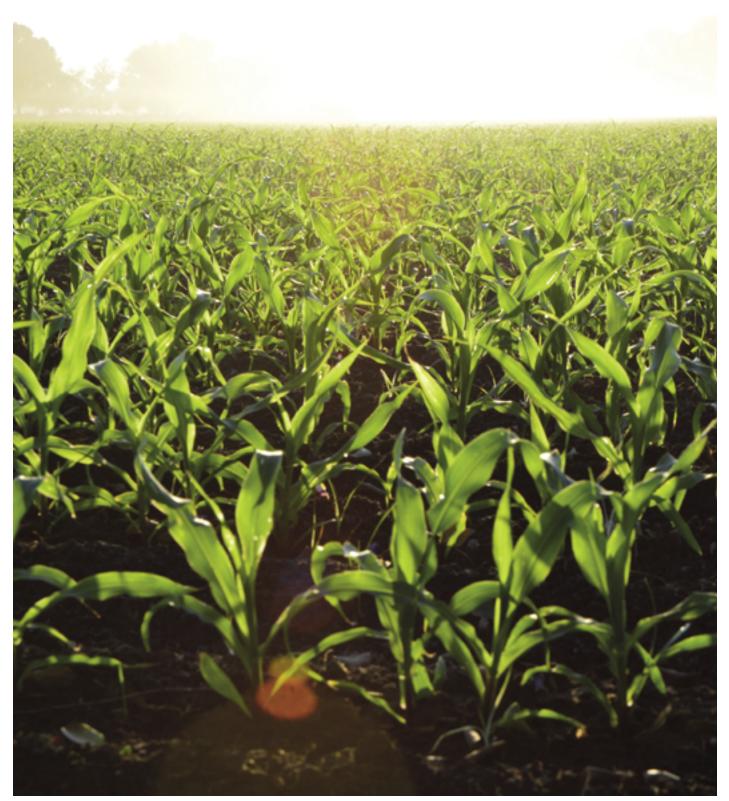
Agriculture -Sector overview



Public Entity: Category:

The Government of the Republic of Namibia, through the Agriculture, Water and Land Reform (MAWLR), has launched the Green Scheme initiative to develop irrigationbased agronomic production in Namibia with the aim of increasing the contribution of agriculture to Namibia's Gross Domestic Product (GDP) and to simultaneously achieve the social development for local communities within suitable irrigation areas. The Green Scheme initiatives would help increase domestic food production and reduce the dependence on imports to enhance Namibian food security. Improving agricultural productivity and creating food security is a critical objective of the Government of Namibia as per the NDP5, Vision 2030, and the Harambee Prosperity Plan.

Project Name: Neckartal Green Scheme Irrigation Farm



Project Location: //Karas region

The Neckartal Irrigation Scheme project involves the development of the Neckartal irrigation project and the construction of the Neckartal Farm with a total approximate area of 5,000 hectares that could be used to produce dates and grapes for export. The project is expected to include the setting up of relevant infrastructure for drawing the water from the recently built Neckartal dam, such as pumping stations, irrigation channels, and pipelines, in addition to the allied agriculture infrastructure such, as farm equipment, crop processing units, shed, godowns, silos for storage, and fencing.

The private developer would have the flexibility to produce any crops, based on the market demand assessment. The private developer would also have the flexibility to sell the crops produced domestically or abroad, based on the market demand assessment.

Estimated Investment required: USD 200m

Project Readiness: The project is ready to commence with the feasibility study. The project was submitted to the Public-Private Partnership (PPP) Unit of the Ministry of Finance for screening and advice for project preparation.

Procurement/implementation consideration: PPP arrangement.

Project Name: Zone Green Scheme Irrigation Farm



An opportunity exists for the procurement of a private partner to operate the farm on a PPP arrangement, on a Build, Operate, and Transfer (BOT) basis. The private partner will be responsible for funding the infrastructure development and thereafter operate the project for a specified period as per the PPP agreement.

The operator will produce crops based on the market demand assessment. The developer may have the flexibility to sell the crops produced domestically or abroad, based on the market demand assessment. The size of the area available for development is 1,800 hectares. A large part of the available land is planned for commercial farming and a smaller portion may be utilised for medium scale farming activities.

Estimated Investment required: USD 24m

Project Readiness: Project is ready to commence with the feasibility study. The project was submitted to the PPP Unit of the Ministry of Finance for screening and advice for project preparation.

Procurement/implementation consideration: PPP arrangement.

Project Name: Tandjieskoppe Green Scheme Irrigation Farm



Project Location: //Karas region

The Government of Namibia intends to attract private investment and irrigation expertise to help achieve its objectives of increasing food production and skills transfer to emerging irrigation farmers. The project will develop plots that will be allocated to medium-scale commercial farmers and small-scale farmers. It is expected for small scale farmers to learn by monitoring the commercial farmers thereby building local capacity in terms of production and marketing management.

The project is expected to result in wide economic benefits to the region. Revenue earned by the small-scale farmers is expected to increase their ability to purchase food that they do not produce and provide basic needs such as clothes, housing, education, and medical needs for their families.

Estimated Investment required: USD 55m

Project Readiness: Project is ready to commence with the feasibility study. The project was submitted to PPP Unit of the Ministry of Finance for screening and advice for project preparation

Procurement/implementation consideration: PPP arrangement.

Public Projects and Potential Investment Opportunities

Transport & Logistics Infrastructure

Project Name: Development of a new international terminal at Hosea Kutako International Airport, Windhoek



Project Name:	Development of a new international terminal at Hosea Kutako International Airport, Windhoek
Project Location:	Windhoek
Public Entity:	Namibia Airports Company (NAC)
Category:	Transport/Infrastructure

Project overview

Namibia Airports Company (NAC) is the operator of Hosea Kutako International Airport (HKIA), the larger of Namibia's two main international airports, located 45km east of the capital city, Windhoek. HKIA is Namibia's largest airport and the aviation gateway of the nation.

International routes added to HKIA from 2016 resulted in double-digit passenger growth which necessitated the need for HKIA to be expanded both in the short term and in the medium to long term. NAC has recently completed an expansion project aimed at alleviating congestion in the existing Terminals 1 and 2 and increasing capacity in the short term. It is worth noting, however, that the current works done on existing terminals are expected to accommodate very limited growth in passenger traffic until no later than 2030. After that, the existing facilities will simply not be adequate to accommodate the passenger and aircraft movements.

The ability for HKIA to continue offering an Optimum Level of Service (LoS) to passengers from around the globe has a direct impact on the socio-economic climate of Namibia. A new sustainable & innovative international terminal is required to ensure the longevity of this key logistics hub by providing additional facilities and increased capacity. Terminal 3 Expansion will consist of a new terminal and possibly additional apron and taxiway works to accommodate incremental future traffic growth.

The NAC intends to procure the services of a private partner to expand, manage and operate through a Public-Private Partnership (PPP).

Estimated Investment required: USD 241m

Project Readiness: A PPP options analysis and a pre-feasibility study was performed during 2018 with the assistance of the World Bank. Another feasibility study was concluded in 2020 with a view to securing a loan for the construction of Terminal 3. Subsequent to the conclusion of the latter feasibility study, the aviation industry was affected by the COVID-19 pandemic, thereby rendering some forecasts and assumptions applied in the feasibility studies largely outdated. NAC is, therefore, ready to commence with an update of these feasibility studies.

Procurement Consideration: PPP arrangement

Public Projects and Potential Investment Opportunities

Water

Project Name: Development of Desalination plant at the Central Coast



Project Name:	Development of Desalination plant at the Central Coast
Project Location:	Swakopmund, Erongo region
Public Entity:	Namwater
Category:	Water/Infrastructure

Project overview

Namibia is an arid to semi-arid country with high variability in rainfall leading to unpredictable availability of water resources in the Central Area of Namibia including the capital, Windhoek, as well the Central Coastal Area, in which the towns of Henties Bay, Arandis, Swakopmund, and Walvis Bay, as well as several uranium mines, are located.

The two areas (Central Area and Central Coastal Area) are currently water scarce, mainly due to the increase in population, and subsequently the water demands, as a result of rural to urban migration and industrial growth. The Namibian Government commenced with a Feasibility Study to investigate the desalination of seawater for supply to the Central Coastal Area and the Central Area of Namibia. Three water supply scenarios were assessed: SS1 - supply to Central Coastal Area only; SS2 - supply to Central Coastal Area and Central Area of Namibia as well as consumers en-route; and SS3 - supply to Central Coastal Area, Central Area of Namibia, consumers en-route and Botswana.

The Namibian Government has decided to implement the infrastructure to meet the water demand of the customers (Local Authorities and Uranium Mines) in the Central Coastal Area (SS1) as a first phase.

The project to supply desalinated seawater to the Central Coastal Area will consist of a new modularised desalination plant adjacent to existing Orano Desalination Plant, complete with seawater intake and brine discharge system, pre-treatment, desalination by reverse osmosis and post-treatment, a pump station, and a new 900 mm diameter, 4.5 km long pipeline which will be connected to the existing above ground Wlotzkasbaken-Swakopmund pipeline. Furthermore, additional clear water storage will be established at the new plant at Swakopmund. It is envisaged that the desalination plant will be built in 3 stages with a production capacity of 20 million cubic metres per annum as the first stage, increasing to 36.2 million cubic metres per annum for the third and final stage. The supply of renewable energy by a photovoltaic system for desalination and water conveyance purposes is envisaged to be pursued during later stages.

Estimated Investment required: USD 231m (capital cost including pump station, pipeline, storage reservoirs and renewable power plant

Project Readiness: Feasibility study completed. The feasibility was submitted to the Public Private Partnership (PPP) Unit in the Ministry of Finance for assessment.

Procurement/Implementation consideration: The Namibian government is exploring different alternatives to implement the project which include a PPP arrangement and Joint Venture partnership with local mines and investors. The desalination plant is to be procured via an EPC/DBOT contract with the developer jointly operating the plant with Namwater for a few years after construction with subsequent transfer to Namwater.

Project Name: **City of Windhoek Direct Water Reclamation plant**



Project Name:	City of Windhoek Direct Water Reclamation plant
Project Location: Public Entity:	Windhoek, Khomas region Windhoek municipality
Category:	Water/Infrastructure

Project overview

The City of Windhoek (CoW) is the largest consumer of water within the Central Area of Namibia, and the area uses approximately 27 million cubic metres of potable water per annum. The CoW is responsible for supply, distribution, and maintenance of the quality of potable water within its urban areas. The three main sources of water for the City of Windhoek include bulk water purchased from NamWater (accounting for 60% of the total supply), groundwater (accounting for 20% of the total supply), and reclaimed water (accounting for 20% of the total supply).

The Windhoek Municipality intends to develop a new Wastewater Reclamation Plant in the city. The CoW is already operating the Goreangab Wastewater Reclamation Plant on Public-Private Partnership (PPP) basis which produces 21,000 cubic metres of drinking water on a daily basis to meet the drinking water demands of 350,000 inhabitants. The Goreangab Wastewater Reclamation plant draws semi-potable effluent from the existing plant and treats the same to potable drinking water quality.

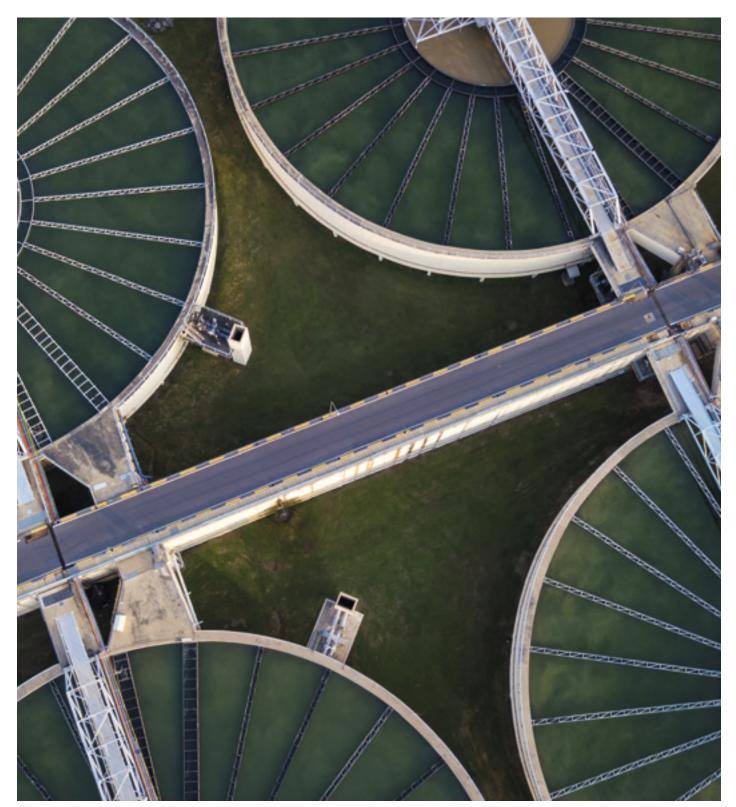
The Direct Potable Reclamation Plant project will be developed either through a PPP route or a Public Procurement basis. The CoW is already in the process of undertaking expansion of the Gammams Wastewater Treatment Plant such that it would be able to produce adequate semi-potable effluents to meet the requirements of both the Goreangab Wastewater Reclamation plant as well as the proposed new Direct Potable Reclamation Plant.

Estimated Investment required: USD 39m

Project Readiness: The technical feasibility study was executed. The full feasibility is to be executed and finalised.

Procurement/implementation consideration: PPP or Public Procurement arrangement.

Project Name: Otjiwarongo Waste Water Treatment plant



Project Name:	Otjiwarongo Waste Water Treatment plant
Project Location: Public Entity:	Otjiwarongo, Otjozondjupa region Otjiwarongo municipality Water/Infrastructure
Category:	water/inirastructure

Project overview

The growing population is increasing the demand for potable water to be distributed to the residents through the supply from NamWater. Currently, the Otjiwarongo Municipality procures water directly from NamWater and does not have an alternative supply. This poses a great risk to the residents as a problem experienced on the supply end would result in the entire town being affected. Therefore, the upgrading of the current system of using oxidation ponds is required to serve a population of 70,000 + residents.

The Otjiwarongo Municipality proposed to recycle and reuse wastewater generated in the city. This recycled water would be supplied to bulk consumers for industrial consumption to meet the incremental bulk (industrial) demand for water while supplying the conserved water to domestic consumers. Presently, the municipality operates a sewerage treatment plant in the north-western part of the town with a daily treatment capacity of 3,300 cubic metres. The sewerage treatment plant uses oxidation ponds for the secondary treatment of sewage collected from the town to produce treated water that is suitable for gardening purposes.

The municipality now intends to develop a tertiary treatment plant on a PPP basis. This tertiary treatment plant would draw the secondary treated sewage from the existing sewerage treatment plant and treat it using a suitable tertiary treatment technology (reverse osmosis and ultrafiltration) to produce tertiary treated water that could be supplied to industrial consumers to meet the incremental industrial demand for water in the municipality.

Estimated Investment required: USD 29m

Project Readiness: Concept stage. The feasibility study is to be executed and submitted to the Ministry of Finance (PPP Unit) for assessment.

Procurement/implementation consideration: PPP arrangement

Public Projects and Potential Investment Opportunities

Housing & Real Estate

Project Name: Development of a Student Village



Project Name:	Development of a Student Village
Project Location:	Windhoek, Khomas region
Public Entity:	Ministry of Higher Education, Training and Innovation
Category:	Real estate/Infrastructure

Project overview

Due to the increased number of university students as a result of the introduction of new academic programmes, the accommodation facilities at universities are inadequate to accommodate all the students. Many of the private accommodation facilities in the vicinity of these universities do not offer the necessary facilities for the students to either study and/or socialise in a conducive environment.

To meet this demand for student accommodation, the Ministry of Higher Education, Training, and Innovation (MHETI) intends to develop a student village in Windhoek on a Public-Private Partnership (PPP) basis (design, finance, build, operate, maintain, and transfer basis). The objective of this proposed project is to offer off-campus affordable student accommodation.

Estimated Investment required: USD 59m

Project Readiness: The feasibility study for the project is completed and undergoing consultation and approval with the ministry.

Procurement/implementation consideration: PPP arrangement (design, finance, build, operate, maintain, and transfer).

Private Projects and Potential Investment Opportunities

Private Projects and Potential Investment Opportunities

Renewable Energy

Project Name: Schonau Solar Energy



Project Name:	Schonau Solar Energy
Company:	Schonau Solar Energy (Pty) Ltd. by Emesco Energy (Namibia) (Pty) Ltd. (Emesco)

Project Description

Schonau Solar Energy (SSE) is a 125 MWp solar PV plant being developed by Emesco near the town of Karasburg in the Kharas Region of southern Namibia.

The project, valued at USD 107m, will generate and export the electricity with the purpose of selling energy into the Southern African Power Pool (SAPP) Competitive Markets.

Emesco currently owns 100% of SSE and will be responsible for the development of the solar PV facility in its entirety based on the Modified Single Buyer (MSB) framework, as an eligible generator and exporter, as developed by the Namibian Electricity Control Board (ECB) in conjunction with the Operating Guidelines of the Southern Africa Power Pool.

Emesco has several years of experience working with key stakeholders including the regulator, various ministries and the public utility, which enables Emesco to confidently pursue the SSE project. Emesco has recently concluded the development phase of a solar PV project in the //Karas region making it the first entity to navigate the Modified Single Buyer regulatory framework.

SSE will fulfil the role of an Independent Power Producer (IPP) on a Build-Own-Operate (BOO) basis, and Emesco, as a developer, is to be arranging all the necessary financing, insurance, authorisations, engineering, procurement and construction requirements for the solar PV facility. Emesco will provide overall project management as required to develop, construct, own and operate the project until the end of plant design life.

The development of this project will contribute to energy access and the promotion of economic development in southern Africa by increasing the availability of renewable energy via the SAPP to southern African countries. This investment will allow southern Namibia to benefit from its natural resources.

The plant will reduce the annual GHG's emitted in the production of utility-supplied power in the region by 331,973 tCO2. This investment in Namibia's energy supply industry will result in reducing the cost of energy across the region, thereby improving access to energy and opportunities for individuals. The project will increase skill levels in the region, creating 400 temporary job opportunities during construction, and another 60 seasonal and 15 permanent during operations.

Progress to Date

- Commercial, technical, and legal pre-feasibility Completed
- Ministerial approval of change of land use Approved
- Environmental Clearance Certificate Submitted for Review
- Generation and export licence approvals Submitted for Review
- Seller registered as Eligible Generator with MSB office Declaration of intent submitted
- Southern African Power Pool membership In progress (letter of support received subject to generation licence approval)

Commercial feasibility

The African Development Bank recognised Namibia's Electricity Control Board (ECB) as one of the top five regulators in Africa through the Electricity Regulatory Index for Africa 2021. The Electricity Regulatory Index covers issues relating to the development of effective and investor-friendly regulatory frameworks.

The SSE project is based on the implementation of effective and investor-friendly regulations by the ECB. The MSB framework allows SSE to participate as a Market Participant on the Southern African Power Pool's (SAPP) competitive markets through the export of electricity from Namibia. Considering recent generation challenges faced by large utilities in SADC, the SSE project will position itself to capture market-share lost by failing utilities, through reliable and predictable solar generation.

Emesco has completed its market investigation and concluded that participation on SAPP's USD-based day-ahead markets offers stable cash flows and above-market returns for the 30-year project life, satisfying both debt and equity participants.

Accompanied by an excellent renewable resource, favourable regulations, access to wellmaintained infrastructure, and a stable political environment, SSE offers investors the opportunity to participate in one of Africa's most innovative low-risk renewable energy projects. In addition, under Emesco's leadership and with the assistance of key Namibian stakeholders, the first project under the modified single buyer (MSB) framework (Rosh Pinah Solar Park) reached financial close within 10 months from the signature date of the power purchase agreement, during the peak of the Covid-19 pandemic in Namibia. This is a tremendous achievement for the company and serves as evidence that Emesco is qualified to deliver a well-developed project to investors.

Investment Required

Emesco is seeking financial institutions to participate in a blended finance structure as debt participants in partnership with the Development Bank of Namibia (DBN). Through the assistance and support of DBN SSE will benefit from access to a measure of concessional finance.

Emesco is seeking USD 75 million in debt based on a 70/30 debt-equity ratio. The combined use of the debt and equity will be applied to the construction of the SSE project, which will be drawn on over the18 months construction period leading up to commercial operation in Q1 2025. Considering the long-term project life, SSE seeks a debt tenure of 15 to 20 years to enhance the robustness of the project.

Private Projects and Potential Investment Opportunities

Agribusiness

Project Name: AMTA Packhouses



Company: Agro-Marketing and Trade Agency (AMTA)

AMTA is a section 21 company established by the Cabinet under the Ministry of Public Enterprises mandated to manage the National Fresh Produce Business Hubs and National Strategic Food Reserves towards the attainment of food security.

As part of its mandate, and as enshrined in the AMTA strategic plan, it is expected to support Government efforts to assist farmers in marketing agricultural products and promote value addition of horticultural produce for the attainment of food security in Namibia.

AMTA has two national hubs situated in Rundu, Kavango east, and in Ongwediva, Oshana region. Further to that, AMTA has one Collection Hub situated in Windhoek and another recently launched Distribution Centre in Gobabis all with the sole purpose to cater for farmers.

In terms of grain storage, AMTA has Silos in strategic regions namely, Zambezi, Kavango East, Ohangwena, Oshikoto, and Omusati regions which cater for grain-producing farmers.

Project Description

The aim of the project is to establish packhouses around the AMTA Hubs. This initiative will be beneficial to producers by deriving more value from products and providing consumers with convenient products. Value addition will improve the competitiveness of local horticulture and open new opportunities for small farmers and traders. It will not only introduce and reinforce AMTA brand amongst all Namibians, but this will also ultimately help AMTA to diversify its product offerings.

AMTA has land dedicated for value addition facilities around the hubs for smart partnerships in agro-processing. There are different types of vegetables that are produced in Namibia, these include onions, potatoes, carrots, green beans, peas, sweet potatoes, broccoli, cauliflower, gem squash, lettuce, butternut, pumpkin, cabbage, marrows, beetroot etc. This produce can be processed into frozen vegetables. Therefore, packhouses to be established are expected to have freezers, high care areas, receiving, and dispatching areas. The packhouses will reduce losses and will produce high-value commodities into the market.

Progress to Date

The packhouses are to be built at Rundu Fresh Produce Business Hubs, Kavango East, and Ongwediva Fresh Produce Business Hubs, Oshana regions. To date, AMTA has identified suitable crops which are produced in volume and thus require further freezing. AMTA has also identified the suitable land for the establishment of the packhouses at the National Hubs. The land available has already been assessed and the Environmental Impact Assessment was completed and approved, the clearance certificate is available, water reticulation and electricity supply are available.



Commercial Feasibility

Despite fulfilling AMTA mandate, the hubs have currently been only focused on marketing and sales of raw produce, with no value addition being in place. About 90% of smallscale farmers who produce tomatoes, carrots, butternuts, and cabbages lose out 40 to 45% of the harvest because of lack of proper, processing, and packaging facility, poor quality and lack of market for non-premium produce.

Currently, there are no packhouses around the hubs regardless of the various crops being grown that could be further processed into frozen vegetables. The packhouses once established will reduce dependency on the importation of frozen vegetables. Currently, all frozen veggies consumed in Namibia are imported and that constitutes about 10% of the local fresh produce consumption. This is a great investment opportunity as it could increase production capacity in Namibia as well as open export markets for fresh produce.

As a start, the project will focus on a few products lines, namely tomatoes, carrots, potatoes, butternuts, cabbages, and watermelons. The products will be made available at the hubs. They will be sold to Namibian retailers, greengrocers, other marketers, caterers, public institutions, and individuals. It is however expected that various customers such as retailers and catering institutions will have an opportunity to request specialised prepackaged produce. In order to expand the availability and to raise awareness of such products, they will also be distributed at identified mini markets in strategic towns and villages for sales on commission.

Numerous trial runs have been carried out since 2017 and some agents which operated in the hubs were already engaged in the exercise at Ongwediva Hub albeit in an unfavourable environment. The results showed that the initiative has the potential to work and achieve the envisaged objectives.

Investment Required

This project funding requires an investment of between N\$ 80m to N\$ 100m depending on size, technology, and a variant lease fee as per agreed terms. Funds will be used to acquire equipment, packaging material, hygiene equipment and for infrastructure modification and to construct blast freezers and suitable cold rooms.



Project Name: **AMTA Tomato Processing**



Company: Agro-Marketing and Trade Agency (AMTA)

AMTA is a Section 21 company established by the Cabinet under the Ministry of Public Enterprises mandated to manage the National Fresh Produce Business Hubs and National Strategic Food Reserves towards the attainment of food security.

As part of its mandate, and as enshrined in the AMTA strategic plan, it is expected to support Government efforts to assist farmers in marketing agricultural products and promote value addition of horticultural produce for the attainment of food security in Namibia.

AMTA has two national hubs situated in Rundu, Kavango east, and in Ongwediva, Oshana region. Further to that, AMTA has one Collection Hub situated in Windhoek and another recently launched Distribution Centre in Gobabis all with the sole purpose to cater for farmers.

In terms of grain storage, AMTA has Silos in strategic regions namely; Zambezi, Kavango East, Ohangwena, Oshikoto, and Omusati regions which cater for grain-producing farmers.

Project Description

The Agro-Marketing and Trade Agency (AMTA), as part of its mandate, and as enshrined in the AMTA strategic plan, is expected to support Government efforts to assist farmers in marketing agricultural products and promote value addition of horticultural produce for the attainment of food security in Namibia.

The National Fresh Produce Business Hubs (FPBHs) is strategically positioned in the heart of the northern regions. Its fundamental function is to act as the centre for the bulk trading and distribution of fresh produce for domestic as well as export trade, provide cold storage facilities as well as to create business opportunities for processing marketing and value addition through industrial activities.

Despite this mandate, the hubs have currently only been focused on marketing and sales of raw produce, no value addition has been taking place. About 90% of small-scale farmers who produce tomatoes lose out 40 to 45% of the harvest because of lack of proper processing facilities.

AMTA has land dedicated to value addition around the hubs for smart partnerships in agro processing. The Tomato processing facility is important to transform tomatoes into various forms such as tomato juice, tomato sauce, tomato puree, dried tomatoes, etc. The facility will allow products diversification and reduce post-harvest loss given the perishability of the produce.

Progress to Date

AMTA has lands dedicated to value addition around the hubs for smart partnerships in agro processing. The Tomato processing facility is important to transform tomatoes into various forms such as tomato Juice, tomato sauce, tomato puree, dried tomatoes, etc.

The facility will allow products diversification and reduce post-harvest loss given the perishability of this commodity.

Commercial Feasibility

Opportunity, therefore, exists in the establishment of a tomato processing plant. Based on the Namibia Agronomic Board (NAB) production forecast of January to May 2022, the envisaged production region is estimated to harvest over 400mt of tomatoes. These facilities will provide a great opportunity for the supply of different forms of tomato products.

The project will focus on establishing tomato processing facilities and acquiring and processing tomatoes into tomato paste. The products will be made available at the hubs. They will be sold to Namibian retailers, greengrocers, other marketers, caterers, public institutions, and individuals. It is however expected that various customers such as retailers and catering institutions will have an opportunity to request specialised prepackaged produce.

In order to stretch and expand the availability and to raise awareness of such products, they will also be distributed at identified minimarkets in strategic towns and villages for sales on commission.

Investment Required

This project funding requires an investment of around N\$ 150m for both cost centres depending on size, technology, and a variant lease fee as per agreed terms. Funds will be used to acquire equipment, packaging material, hygiene equipment, and for Infrastructure Modification, and to construct blast freezers and suitable cold rooms, in addition to personnel, marketing, and promotions.

Project Name: Future Yield Hydroponics



Project Description

Future Yield is a high-tech hydroponic company established in 2020. We have managed to do the necessary groundwork, research, and development to bring the company to launch. We have perfected a hydroponic system suitable for the Namibian climate through strategic partnerships with various experts and suppliers. The main goal of Future Yield is to satisfy the local need for fresh produce through our sustainable operations, thus contributing enormously to Namibia's food security and economy at large. There is no better time to invest in food security in Africa.

The Future Yield Hydroponic 10 hectares project which includes a tomato processing plant will be established in Windhoek, providing fresh vegetables to the country. An envisaged production of approximately 4,000 tonnes of fresh tomatoes yearly on our 10 hectares operation will become the largest producer in the country. This project will employ over 350 people. Much of the fresh produce will be distributed to various partners in the market, while the remaining are kept for processing in our state-of-the-art tomato processing plant supplied and commissioned by highly proficient partner companies.

What makes our systems unique:

- 100% designed and built in Africa
- 90% less water consumption
- 95% less land needed for larger yields
- The operation will make use of solar power 100% sustainable
- O pesticides or herbicides used on our systems
- Up to 600% more growth rate than conventional growing methods
- System patent declared novel and inventive by the Geneva Patent Office

Hydroponics technology - Nutrient Film Technique Trellis Crop: The invention was declared novel and inventive by the international patent offices, used for commercial (and home) production of larger crops (tomatoes, cucumbers, peppers, watermelons, chillies, cucurbits, hops, and tobacco). It is multipurpose, and we can grow multiple cultivars in the same system. It is possible to grow potatoes - an opportunity herewith due to high import numbers. More volume for roots to grow compared to other NFT systems and a unique method of delivering balanced nutrients, oxygen, and water to plants. An extremely flexible system that can apply in many configurations with a recycling system that saves up to 90%, meaning less water and fertilisers.

Hydroponics technology - Raised-bed Systems: Raised bed systems have been specifically developed to optimise space and minimise operational costs in leafy greens and more diminutive crops. You can grow almost any cultivar of small frame plant: Iceberg lettuce, frilly lettuce, spinach, Swiss chard, herbs (most varieties), kale, broccoli, cauliflower, cabbage, strawberries, flowers (many types), mint, gooseberries, parsley, spring onions, basil, celery, and many more. Medicinal plants, tobacco (for making

vaccines), and some unique plants like saffron are also being investigated and tested.

Tomato processing: The tomato processing plant is supplied and commissioned by Fenco Food Machinery Srl (Italy) and GEA TDS GmbH (Germany) with a minimum capacity of processing 500 kg/h of fresh tomatoes. The product will be the first Namibian ketchup brand and tomato paste destined for local consumption and export in the SADC region and beyond.

Progress to Date

Since its inception, Future Yield has put in much groundwork, engaging with various essential stakeholders such as the Ministry of Agriculture, USAID, and NIPDB (Namibia Investment Promotion and Development Board). In addition, we are in the final stages of securing a partnership with Namibia University of Science and Technology (NUST) to develop the first-ever hydroponic research centre as part of a well-put-together curriculum falling under their current Agricultural and Land Sciences department. The technology will be installed at the university on a small scale where students will be able to test various nutrients, crops, and best production practices. In turn, the students will have a chance to intern at our operation and receive first-hand experience in the world of hydroponics.

Future Yield has identified several suitable land options for this project. We have not committed to buying land yet as many factors are at play in choosing the correct land for this project. However, our team of engineers and analytical experts are continuously conducting tests to determine the best location for this project. In addition, through its Green Fund initiative, Bank Windhoek has agreed to finance the land, packhouse, office buildings, and machinery at an advantageous interest rate.

Commercial Feasibility

Most of the fresh produce in Namibia is imported from neighbouring countries and are grown to withstand long-distance transport and extended shelf life, resulting in taste and quality deficits. Our produce is grown in controlled environments and is meant for farms to store immediate distribution, resulting in superior flavour and image. We use no pesticides, herbicides, or fungicides on our plants.

Our 10-hectare operation can produce up to 4,540 tonnes of tomatoes annually or 11 million cucumbers and 1.7 million heads of lettuce. In 2021, Namibia imported N\$ 3,9bn worth of horticulture produce of fruits, grains, and vegetables. In tomatoes alone, we imported 1673 tonnes of tomatoes to the equivalent of N\$ 25.5m, and 891 tonnes of lettuce to the equivalent of N\$ 13.5m.

The tomato processing plant can process 500kg of tomatoes per hour, giving us approximately 122 kilograms of 27°Brix paste. The paste can be further processed into tomato sauce (ketchup), maximising profitability and product integration. Namibia currently imports 7,282 tonnes of tomato paste and ketchup products, mainly from South Africa, China, and Germany, totalling a value of over N\$ 107m.

The fresh produce will be sold directly to nationwide distributors. An agreement with

various reputable national distributors is in place, servicing over 80 stores nationwide with fresh produce. The tomato paste and ketchup will be distributed in all retail stores and informal markets.

Investment Required

A total of N\$ 187m or USD 12,5m (exchange rate may fluctuate) will be needed for this project's entirety.

Includes, but is not limited to:

- Hydroponic farm of 10 hectares (the largest in Southern Africa)
- Tomato paste processing plant (includes installation, commissioning, and training)
- Tomato ketchup processing plant (includes installation, commissioning, and training)
- Transport for equipment
- Land
- Packhouse and processing room
- Running costs for one year
- Solar systems
- Machinery & equipment
- Security costs
- Vehicles
- Marketing and packaging

Initially, we will require a period to build the necessary infrastructure for the hydroponic operation. From breaking ground to the first Yield, the envisaged period is eight months, after which tomato fruits and lettuce will produce a yield of 24/7, 365.

During Year 2, Future Yield will be operating at total capacity, permitting the company to expand the business to include various other venues to market its products.



Project Name: Gibeon Agricultural Scheme



Project Description

A medium size irrigation project is planned in the Southern region of Namibia along the B1 Bitumen Road between Mariental and Keetmanshoop in Hardap Region along the road to the southern border with the Republic of South Africa. The land demarcated for the irrigation scheme has already been secured at the site, Hoppy Garden-513, P-2, near Gibeon B1-Bitumen Road Turn-Off, Gibeon, Hardap Region, for Agro-Business Development and Tourism and Economic Development. Centre pivot and Drip Irrigation systems will be used to irrigate the project and will produce demand crops like Dates and Grapes for targeted markets in Eastern Asia. Also, crops for the home market like maize, wheat, rye, rice, and a wide range of vegetables and fruits.

Progress to Date

To date, adequate land has been secured and more is available for future expansion. Preliminary marketing has been done in the Middle East and Asia markets. The project targets investors with expertise and capital resources in production, investment capital provision, value addition and marketing development for production, processing and marketing of dates, cotton, rye, oats, green onions, cabbages, iceberg lettuces, sweet potatoes, celery, tomatoes, sweet peppers, cucumbers, Zuni squash, melons, eggplants, and mushrooms. Feasibility, Environmental Impact, and Management Studies are yet to be carried out.

Commercial Feasibility

The project is estimated to produce about 500 Date trees and tonnes of other crops per production cycle in 12 months and have an annual turnover estimated at N\$1,000,000 initially and will escalate once production is at full capacity. Preliminary marketing has been done in the Middle East and India with promising potential with exchange visits made. Partnerships have been established within the home market by the Government and local consumers of local food products. The key product of dates is a speciality used during all mealtimes and for religious occasions, which makes it highly demanded by Southasian and Middle eastern markets. These products cannot be produced in those markets during the season when Namibia will have it in abundance, making Namibia a preferred source for these products. India with a population of little over One (1) Billion people has indicated willingness to provide the market. These products are equally in demand locally in Namibia and in neighbouring countries to reduce dependency on imports of essential foodstuffs. Value addition and processing will be done within project operations in addition to enhancing market linkages and mitigating of climate-induced impacts and implications.

To sustain the project, partnerships have been established with Government and local communities. The project is relevant to Namibia's National Strategic Objectives and complies with corporate and industry regulations.

Water is available in close vicinity from Hardap Dam, as part of NamWater supply grid to

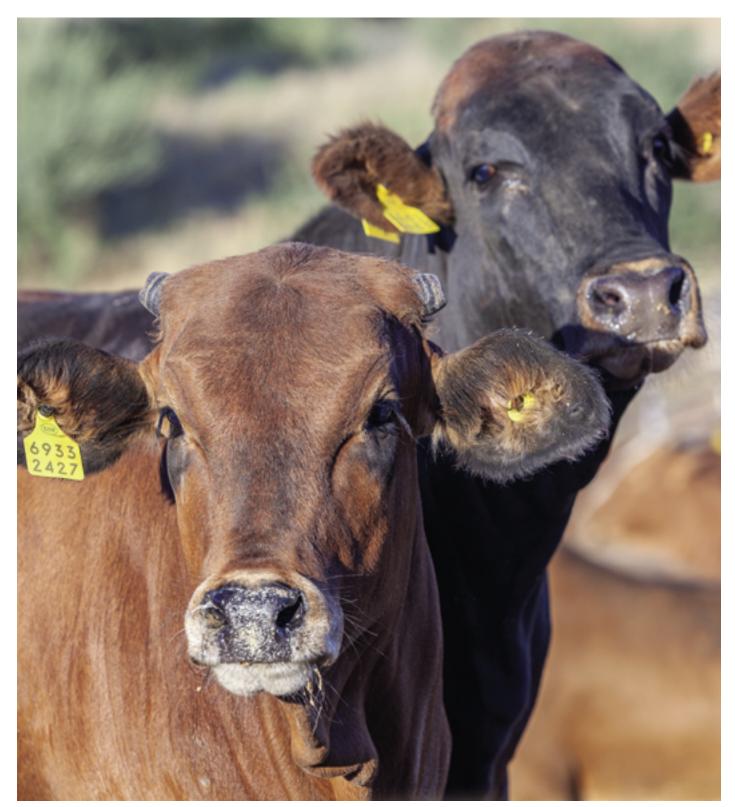
the target location and can be connected within the project operationalisation process. NamWater stands ready to sign relevant documentation as connectivity has already been done to neighbouring projects.

Investment Required

The project is estimated to cost up to USD 19,7m (about N\$ 296m) for equipment, water linkages to existing NamWater Grid and irrigation gear, gardening and crop care, harvesting, storage, processing and value-addition, marketing and transport, and operational overheads.



Project Name: Kahakwena Smart Cattle Farming



Project Description

Kahakwena Holdings owns an 8,000 hectares portion of land in Grootfontein, Namibia which will be apportioned as detailed below across the various operations of our proposed project.

Primary Operation: Cattle Feedlot (5,000 heads of cattle over 2,000 hectares of land)

Our company intends to fatten cattle in pens/feedlots. Cattle will be purchased from the Grootfontein, Tsumeb and Otavi districts where it is cheap, and transported to our farm which is located in Grootfontein. We will then feed the cattle for a period of 90 days. During this period, we expect the cattle to increase in weight and an increase in the quality of the beef to super grade. We will then sell the cattle, primarily in the export markets, and make a profit. We will continuously do this throughout the year.

The key features of the Kahakwena Holdings operation are decent job creation for people in Namibia and the greater SADC region, socio-economic development by transferring wealth to rural areas, and increased exports to generate positive foreign currency reserves for Namibia and the region.

Secondary Operations: Renewable Energy, BioFuels & SMART Farming

In addition to our primary described above, we intend to establish operations that are aligned with the vision of a Green Economy, with focus on Renewable Energy, BioFuels and SMART farming:

- Renewable Energy Solar Power Plant (5 MW over 100 hectares of land)
- Renewable Energy Biomass (100,000 tonnes annually over 5,700 hectares of land)
- BioFuels BioMethane Refinery (100 tonnes annually over 50 hectares of land)
- BioFuels BioDiesel Refinery (100 million litres annually over 50 hectares of land)
- SMART Farming Aquaculture: Tilapia & Prawns (100 tonnes annually over 50 has of land)
- SMART Farming Hydroponics: Lettuce & Kale (100 tonnes annually over 50 hectares of land)

"Smart farming" is an emerging concept that refers to managing farms using technologies

like IoT, robotics, drones, and AI to increase the quantity and quality of products while optimising the human labour required by production. Among the technologies available for present-day farmers are:

- Sensors: soil, water, light, humidity, temperature management
- Software: specialised software solutions that target specific farm types or applications agnostic IoT platforms
- Connectivity: cellular, LoRa
- Location: GPS, Satellite
- Robotics: Autonomous tractors, processing facilities
- Data analytics: standalone analytics solutions, data pipelines for downstream solutions

Progress to Date

Having started with a herd of less than 100 cattle, Kahakwena Holdings currently owns a 8,000 hectares farm in Grootfontein with a livestock herd as detailed below:

- 1,500+ heads of cattle
- 3,900+ heads of goats and sheep

The operation has been running for 3 years and has been serving local markets, selling at auctions and directly to consumers.

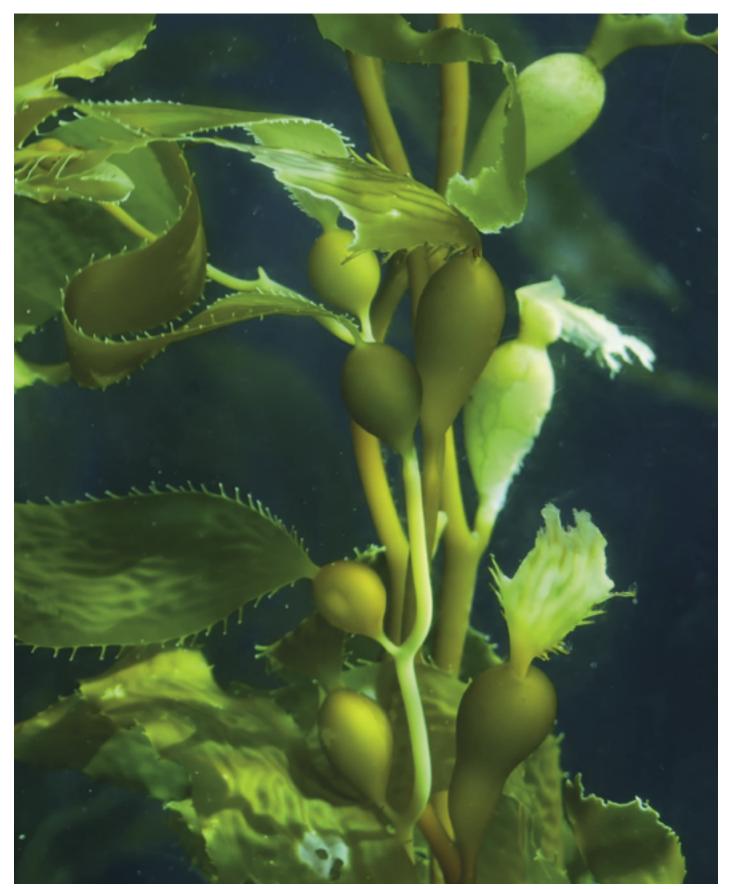
Commercial Feasibility

Our primary operation, being the free-range fattening of cattle, has been steadily growing, which proves the feasibility of seeking a more advanced fattening approach through the pens/feedlots to expand this operation. Regarding our secondary operations, we are currently in the early stages of feasibility studies for the renewable energy and biofuel operations, which will be completed with funding raised from investors in the project.

Investment Required

To successfully implement the project, a total of N\$ 400m will be raised from various sources. The funds will be used for the construction of buildings, the purchase of machinery and equipment and working capital.

Project Name: **Kelp Blue**



Project Name:Kelp BlueCompany:Kelp Blue Holdfast B.V.

Project Description

Kelp Blue is a kelp cultivation business headquartered in the Netherlands. We exist to achieve 2 primary objectives:

- Sequestering carbon on a globally significant scale
- Boosting biodiversity in local ecosystems

This is achieved through the development and operation of large-scale commercial kelp farms. A portion of this kelp is consistently harvested to produce sustainable and carbon negative products which are then utilised to displace harmful products in the global supply chain.

Our aim is to cultivate and curate the knowledge required for kelp-based solutions to become useful and economic at the scale required for change. On both a commercial and ecological level, this is a truly necessary endeavour that can accelerate our economy's mindset away from one of damage mitigation, towards one in which our productive industries are in harmony with and in benefit of our delicate environment.

Our vertically integrated approach across the value chain creates a fundamental shift in the cost structure of seaweed production and processing. Combined with a calculated market entry strategy enables Kelp Blue to maintain high margins in each location and product line. This high return on capital combined with our climate focus is the driver to attract vast amounts of capital in the coming years.

Our big picture mission is clear: We exist to achieve these global-scale positive impacts on the environment as well as socially developing the local economies within which we operate – our profits are an enabler of our impact, not our driver.

Following a global mapping exercise, Namibia proved to be the optimal location for our first project. The nutrient upwelling from the Benguela system provides the nutrients required for kelp's rapid growth. The local geography and seabed are optimally designed for implementation of the arrays, and the neighbouring Atlantic Ocean enables deepsea deposition of kelp biomass for permanent sequestration.

More precisely within Namibia, Lüderitz is the perfect spot to host this project.

This project-based kelp cultivation solution can be replicated again and again to deliver these outstanding results and kelp's abundance across the globe.

As we move forward beyond Namibia, all the work will be driven by the foundations built in Lüderitz: Namibia is the cornerstone on which this vision can be built.

Progress to Date

Kelp Blue is currently undertaking a pilot trial in Lüderitz of 1.5 ha. This will provide key operational and scientific data to ensure a successful ramp-up to our commercial-scale of 800 ha.

An aquaculture licence has been secured for the full pilot trials offshore Lüderitz, the

permitted area of which will significantly increase following successful completion of the pilot. Following pilot completion, the expanded commercial licence will enable fullscale operations well beyond the 800 hectares project, thus providing a large runway for Kelp Blue's future growth in Namibia.

As we continue our pilot trials, various key operational milestones have already been achieved; from constructing our own hatchery, sourcing and inducing seaweed spores, fabricating our 1.5 hectares array, to constructing processing plants for biostimulants. The foundations are now set for rapid growth.

Full ramp-up period is expected to take 4-years, with the final array being installed in 2027.

This will be Kelp Blue's first fully commercial project and will enable rapid expansion in other areas of Namibian waters; further amplifying the positive environmental and social impacts across the country.

Commercial Feasibility

Efficient kelp production has up until now been a challenge; current kelp supply is generated by wild harvest and product processing occurs on very small scales. Supply in this way is by nature limited and unpredictable, and due to these supply constraints, processors are unable to commit to building large facilities. Low volumes mean no economies of scale, and the absence of which means the cost of processing remains almost prohibitively high.

Kelp Blue is solving this problem with a fully integrated approach. With our development of large-scale kelp farms with consistent output, we will solve the supply constraint. And our construction of automated high throughput processing assets will reduce the cost of processing to such a level that our products are not only ecologically beneficial but economically lucrative.

Our commitment to repairing and improving the global ecosystem is reflected in the choice of our first flagship product: biostimulant.

Biostimulant is a liquid product applied to land-based crops to boost yields and improve resilience to stressors. This naturally produced additive is becoming a key weapon in the arsenal of the modern-day farmer; one who looks at his soil as something to be nourished and preserved for future generations. The farmer's soil is no longer a resource to be extracted and exploited, and biostimulants aid this shift away from harmful chemicals and inputs.

Regulatory bodies across the globe are pushing farmers to reduce their usage of synthetic and harmful inputs to their land. Biostimulants are a key alternative in this shift and when combined with Kelp Blue's reduction in the cost of production, it is not only the environmentally conscious farmer that will drive uptake but any economically minded customer. Studies currently estimate the market size of ca. EUR 1bn, with the above factors driving >2x growth by 2030.

Investment Required

USD 70m is required to develop this 800 hectares project.

The project is upfront capital intensive due to the required fixed asset base – this generates large capex in Years 1-3. Following this period, the free cash flows will generate EBITDA margins of 60%+ and annual cash yields on invested capital will approach 90%; all driven by economies of scale for production and the deep high margin markets being targeted.

The invested capital is utilised across:

- USD 35m kelp farming infrastructure (fixed assets)
- USD 25m kelp processing assets (fixed asset & vessels)
- USD 10m pre-profitability expenses

Innovative offshore design: Unique and proprietary array designs facilitate the offshore placement that drives optimal nutrient uptake of the kelp. These designs are robustly built to withstand strong offshore currents and through innovative design elements will reduce the cost per hectare by an order of magnitude vs the pilot trials.

Cutting edge processing assets: Kelp Blue is in the process of developing an innovative and industry-leading kelp harvesting with onboard processing. This reduces the number of times the kelp is handled and immediately transforms the kelp into a high-value product, minimising loss and reducing transportation costs.

Project Name: Ohangwena Cotton Production



Project Name:	Ohangwena Cotton Production
Company:	Ohangwena Cotton Production Pty Ltd.

Project Description

Ohangwena Cotton Production Pty Ltd is a 100% Namibian Company, owned by Dasius Nelumbu, 41. The company's core business is to farm, process and trade in organic cotton. Its long-term goal is to implement a complete value chain for cotton in Namibia. Thus, Farming, Ginning, Spinning, Weaving, Printing & Dying, Finish (Sewing) 100% cotton products and sell locally and internationally. The company also aims to process Cotton Seeds into Organic Cooking Oil and Animal feeds.

The company will achieve the above by ensuring a sufficient supply of high-quality raw cotton to its processing plant through implementing a systematic precision cotton farming technique which includes putting significant farming land under an irrigation system.

The project will also contribute to food security through rotation farming which will enable us to farm pest-resistant crops, Cereals, Legumes, Grain corn and vegetable crops that are compatible with cotton in terms of soil fertility and sustainable farming. In terms of Jobs, the project will employ over 3000 people, this is in line with the objectives of the Namibian Government to create sustainable jobs and reduce unemployment.

In terms of community and public involvement, the project has a full participation model for small-scale farmers to farm cotton and sell such to our processing plant. This includes group farming and profit share for those who wish to farm and submit as a group to gain from volume incentives. This will encourage cotton farming within the organic sustainable practice and will promote livelihood benefits from cotton farming.



Project site visitation: Source of Water – Kavango River

Progress to Date

Thus far, the groundwork is complete which includes feasibility study, market research, technical farming research, financial model and a full business plan is also available. In terms of land, the project requires 20000ha of land, located in two main locations, Ohangwena Region 25% and Kavango Region 75%, both Regions have sufficient water sources from Ohangwena Aquifer and Kavango River respectively. Letters of land availability are also available for inspection and validation.

Commercial Feasibility

The commercial feasibility report is available as mentioned above, the project has also secured supply contracts which are available for inspection.

Letter of intent to supply 45,000 tonnes per year of ginned cotton to Plexus Cotton, UK.

Supply contract to supply 9,000 tonnes per year of ginned cotton to Alassola SA, Bengela, Angola.

Investment Required

The project financial model is based on re-investment strategy to fund expansion in order to satisfy local and international demand for organic cotton.

Hence, the initial investment is USD36.4million.

The funds will be used to clear the virgin land, ginning infrastructure, and machinery, Irrigation system for 3000ha, cotton farming equipment, investment in renewable energy (solar) to support factory power consumptions and operation cost for the first year.



Project contracts negotiations meeting: From left: Mr. Yamamoto Hiroshi (Technical Engineer, Alassola Textil), Dr. Tambwe Mukaz (CEO, Alassola Textile) Mr. Dasius Nelumbu (Founding Director, Ohangwena Cotton Production Pty Ltd), Mr. Nick Earlam (CEO and Chairperson, Plexus Cotton - UK)



From Left: Dasius Nelumbu (Project Founding Director), Semion Alfred (Project Advisor), Mr. Nick Earlam(CEO, Plexus Cotton Ltd), Mr. Kuvare Uparura (Former CEO, Namibia Industrial Development Agency (NIDA)), Dr. Tambwe Mukaz (CEO, Alassola Textil), Mr. Yamamoto Hiroshi (Technical Engineer, Alassola Textil)

After a successful meeting with NIDA at NIDA office, Windhoek, Namibia

Project Name: ROOTS Development



Project Name:	ROOTS Development
Company:	ROOTS by Jahenmar Trading Enterprises (PTY) Ltd.

Project Description

The ROOTS Development is a project by Jahenmar Trading Enterprises (Pty) Ltd which entails a self-sustaining township development that provides a platform for integration between agriculture, education, and other supporting commercial trades in a balanced lifestyle environment. The vision of ROOTS is to provide enough food for the Namibian nation, instead of continuing to be dependent on other countries for food supply. A secondary aim of the project is to train fellow Namibians on how to produce food efficiently, for optimal harvest and yield and thereby ensuring the long-term sustainability of the project.

The first ROOTS agricultural village is situated in Stampriet, and is based on a unique model which combines intensive farming of livestock and permanent crops, with an agricultural college for education in food security, a retirement village, a lifestyle village, and various business opportunities.

Based on this model, the ROOTS development project aims to expand into all 14 regions of Namibia, with an agricultural village in each region. Each agricultural village will collectively work towards generating food and employment security on a regional and then later towards a national level.

Furthermore, these towns will empower the Namibian youth to enter the formal agricultural sector through either becoming an entrepreneur who creates jobs, or by being employed as well-educated and knowledgeable employees.

The promoter has more than 20 years of experience in business, education, property development (from affordable housing to commercial), and farming.

ROOTS will create direct employment of approx. 300 permanent jobs and an additional 200 temporary/seasonal jobs; including indirect job creation throughout the supply chain and will harness renewable energy to the maximum extent.

It is the project's ultimate vision for all of Namibia to embody the words "We produce what we eat, and we eat what we produce".



Progress to Date

A 3 200-ha farm has been subdivided into individual plots and services infrastructure installed and operational. The layout allows for a mix of residential, business, agriculture, and institutional plots to host various activities. The total area, zoning and position of each plot has been strategically designed to provide for all short and long term needs to fulfil the objectives of the development. The ROOTS Gymnasium agricultural school has opened and is fully functional.

All trade licences have been obtained including EIA, ISO 2000 and governmental approvals relating to operations local and international.

Already having produced the first commercial apple farmer in the history of Namibia (50 tonnes harvested to date), 10 tonnes tomatoes and 3 tonnes of grapes harvested and the first harvest of 50 tonnes of chillies due mid-2022 - ROOTS believes that Namibian agricultural market is ripe to be transformed from what it is today (based on cattle, sheep and goat farming) to a multi discipline sector, as seen in neighbouring South Africa.

Commercial Feasibility

The current established demand for poultry meat in Namibia is ranging between 3,500 – 3,800 tonnes per month, of which only $\pm 2,300$ tonnes are produced locally and the balance (1,200 – 1,500 tonnes) therefore being imported.

ROOTS has over the past 10 months produced and processed 150 tonnes of chicken and is now ready to up-scale to around 800 tonnes per month to capture/replace a large portion of the import market.



Investment Required

Investment is required to fund the construction of a larger abattoir and processing facility which can handle these volumes and the construction of chicken coops (poultry housing structures) to house approximately 1 million broilers (chicks) and ancillary facilities such as a hatchery to incubate eggs.

The required project investment of N\$160 million will also include a manufacturing plant at ROOTS to process and bottle sauces made from the chillies, apples, tomatoes, and other produce, with off-take locally and abroad. N\$ 136.5m is required as a capital investment over a 12-15month period, with an additional N\$ 24.5m required as working capital until the project becomes self-sustaining at the end of this period.

The projected IRR over a 15-year investment period is around 19%.

Project Name: **Triple M Quarantine and Feedlot Facilities**



Project Description

The project's primary objective is to set up secure quarantine and feedlot facilities in the northern regions (foot and mouth diseases infested areas) of Namibia for the purpose of improving the health and quality of beef cattle in the region to be able to integrate the northern beef business to national and international beef markets.

The project will also need to purchase farmland in the southern areas (foot and mouth disease free zones) of Namibia where cattle can be kept, finished (final fattening process) and sold to international markets.

The establishment of facilities and integration will enable the organisations to achieve the following objectives:

- Purchase cattle at low prices (at approximately 1.00 USD/kg) in the northern regions or northern communal area (NCA) of Namibia
- Subject the cattle to secure infrastructures (e.g., electric fencing) which will prevent them from getting in contact with other animals including game. This will also prevent the destruction of facilities by elephants.
- Subject the cattle to quarantine processes as per the world organisation for animal health (OIE) standards to improve animal health
- Subject the cattle to feedlot processes which will improve the animals beef quality,
- Transport the animals to the southern areas of Namibia for the purpose of selling them to the international export abattoirs (at approx. 3.00 USD/Kg)
- The northern communal area of Namibia is an untapped strategic area for the purposes of beef cattle business (purchases and fattening) due to the following reasons:
- There is currently no formal market where the communal farmers can sell their cattle which is a process that the organisation would like to establish.
- There is a high number of unemployed people who can be employed by the organisation.
- There is the availability of water for crop production which will be used for animal feed.
- There is the availability of rangelands that can be accessed and improved for purposes of feedlot setups.

Besides the financial benefits for the investors and shareholders, the project also plans to realise the following benefits:

- Integration with communal farmers to help them improve their livestock health and quality.
- Create employment opportunities (permanent and seasonal) for people in the regions
- Integration with the educational system to provide internships to the youth within the different areas of the organisation.
- Provide quality living standards (health and accommodation) for employees
- Provide training and development opportunities for employees
- Implement different corporate social responsibility initiatives targeted at youth development.

The project in partnership with the government of Namibia will also target to resolve the following challenges experienced in the NCA:

- Lack of proper road infrastructure for easy cattle transportation in the communal areas.
- Ongoing destruction of infrastructure and crop fields by unmanaged elephants in the region.

Progress to Date

To-date the project has:

- Acquired the first farming unit in the northern part of Namibia which measures about 4,937 hectares on 99 years leasehold period (leasehold attached)
- Purchased about 150 cattle and 100 goats
- Erected 5 camps and is busy erecting 6 more to attain 10 camps to be able to best manage the quarantine processes
- Purchased a tractor for ploughing and planting of animal feed
- Purchased debushing equipment for clearing of farm roads and crop fields
- Installed two boreholes (one with a solar pump supplying a 10,000-litre tank and the second one is a diesel pump supplying a 50,000-litre dam)

Commercial feasibility

Several studies were conducted as part of the proposal development, including an Industry analysis and Grade distribution and Cattle health regulations studies.

In short, there are approximately over a million cattle in the northern region of Namibia of which less than 2000 make it to the international markets. Cattle purchased in the northern region can be sold at prices almost 4 times higher by taking them through quarantine processes and feeding for a short time (minimum 3 months).

Investment Required

The project is looking for \$ 29m in long-term funding. The funds will be used for:

- Farmland purchasing of farms in the southern regions of Namibia where cattle will be finished (final fattening stage) and sold to the export abattoirs
- Infrastructure setting up of electric fencing, quarantine camps, housing, farm clinics, storage facilities, roads, solar electricity, irrigation systems and supporting infrastructure, as well as, hydroponic systems and purchasing of seeds.
- Implements purchasing of trucks, ploughs, planters, and harvesters
- Livestock purchasing of livestock that will go through the quarantine and feedlot processes
- Transportation purchasing of trucks and vehicles to be used on the farms for operations such as transporting cattle
- Operations payment of operational activities such as external support, repairs, maintenance, and services such as veterinary.
- Personnel and Consultancy- salaries, including benefits for employees, as well as the hiring of consultancy and training services to enhance knowledge in the feedlot value

Private Projects and Potential Investment Opportunities

Mining, Mineral Beneficiation & Adjacent Industries

Project Name: Lodestone Mining



Project Name:	Lodestone Mining
Company:	Lodestone Namibia (Pty) Ltd.

Lodestone Namibia (Pty) Ltd is a privately owned mining company that can produce exceptionally pure iron ore concentrates ranging from 66-68% Fe for the steel industry and 71.5% Fe for niche product consumers. This premium product is well-placed to take advantage of the global drive to reduce CO² emissions.

Project Description and Commercial Feasibility

The Company successfully exported 52,000-tonnes of magnetite rich iron ore fines in August 2021 as part of a pilot project. In Q1 of 2022, Lodestone completed an investment grade bankable feasibility study for the export of 0.75Mtpa of 66% Fe concentrate ("Demonstration Phase") and is currently seeking funding to construct this plant.

Once the project has been de-risked through the Demonstration Phase, Lodestone plans to ramp up production to 2.5Mtpa. The project has an LOM of 17 years, supported by a 20-year mining license and EIA

Project Differentiators:

- Clean, HG 66% Fe concentrate
- Products can be marketed as both DR pellet feed and sinter fines.
- Brown-fields logistics solution (52Kt shipped in Aug-21).
- Signed off-take & marketing agreement with Anglo-America Marketing Limited.
- Short time to market. 12-month construction period.
- Politically stable jurisdiction.
- First-class technical analysis, reviewed and approved by Anglo's technical team.

Investment Required

Lodestone welcomes interest from investors to participate in a unique opportunity to access high-grade iron ore in one of the most politically stable jurisdictions in Africa. The all-in CAPEX required for the Demonstration Phase is USD 75m.

Private Projects and Potential Investment Opportunities

Infrastructure, Logistics & Transport

Project Name: Nakathilo Commercial and Logistics Plaza



Trans-Kalahari Logistics CC, a CLOSE Corporation registered in February 2009 and owned by Mr Josef Penda Mundjele, specialises in logistics and transportation services, especially cross-border transportation. From inception the corporation has established itself as a long-distance transporter and later diversified its portfolio into plant and tool hire as well as logistics Infrastructure development.

Project Description and Commercial Feasibility

Trans-Kalahari Logistics CC has developed plans for a new commercial infrastructure project which will culminate in the construction of Nakathilo Commercial and Logistics Plaza. On completion, this will be a multi-tenant business park serving as a key logistics and commodity distribution hub in the North of Namibia. Strategically Located on Erf 8096, extension 18 Ondangwa, and on 20,000m2 of land, we aspire to build:

- 1788m2 of cold storage facilities with the capacity to hold more than 4000 cubic metres of frozen or chilled products as the anchor amenity.
- 4440m2 of dry goods commercial warehouse space, supported by on-site office and business support amenities.
- 5899m2 of office space for rental to a diverse range of businesses and for use in support of the warehouse operations on site.

The corporation intends to develop this infrastructure and rent it out to commercial tenants, primarily in the fast-moving consumer goods (FMCG) wholesale and retail sector. This project was inspired by the gap in logistics and warehousing infrastructure that we identified in this fast-growing region of Namibia. Product cold chain management is particularly challenging for businesses in this region. Maximum average annual temperatures exceed 30C for up to 8 months of the year including peak periods in the FMCG sector such as December festive holidays.

The town of Ondangwa itself, is strategically positioned in terms of access to critical trade routes in the north of the country. It can be used as transit point for product destined for neighbouring Angola, Zambia, Zimbabwe and our proposed development site sits virtually at the intersection of three major highways leading from Ondangwa to three significant northern towns, namely:

- Oshakati
- Oshikango
- Ongwediva

This site would therefore draw interest from businesses in all these towns and beyond our borders, as an ideal base for holding and managing bulk inventory, closer to its intended market. The town of Ondangwa is home to the only fully operating international airport in northern Namibia, and this is ideal for this project as the site is less than a 10-minutes drive from the Andimba Toivo yaToivo International Airport.

Progress to Date

The project is based on two development phases namely phase 1 (PH1) and phase 2 (PH2). Funding permitting, this project can be completed in 24 months, commencing on 1 September 2022 and with a completion date of 31 August 2024. The development will consist of the following distinct activities:

- Access roads, platform & external works
- Mega warehouses and mid-sized distribution warehouses
- Commercial centre
- Commercial Cold storage
- Storage/trading Garages

To date, land acquisition and planning, Licensing and Environmental Impact Assessment (EIA), Financial projections and feasibility studies, as well as, Geotechnical Surveys and stormwater studies have been completed.

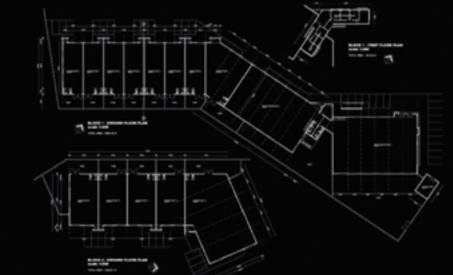
Investment Required

Trans Kalahari Logistics CC has secured title to ERF 8096, extension 18 Ondangwa, the company has since invested N\$ 3,6m to bring the project to financial close. The Corporation is seeking Mortgage-loan Finance to the tune of N\$ 265m. This will enable full completion of the capital project described above over the course of 24 months. We propose repayment of the loan over a period of 20 years commencing from the date of completion of building activities. We have stuck to the following relatively conservative key assumptions in our budgets:

- Bond interest rate of 11.75%
- Rental income annual escalation of 8%, while operating expenses are escalated at 10% per annum throughout the period.
- 80% occupancy of all available rental space throughout the bond repayment period.

Another form of finance that the company is looking at is in the form of equity partnership. The company is willing to take on equity partners to invest in the project on a 40/60 percentage shareholding basis. The equity partner will be acquiring 40% shares in the centre with Trans-Kalahari Logistics retaining 60% shareholding. The funds from the sale of equity will be used for the completion of phase 1 (PH1) of the project with the remainder of the funding to be enquired through senior debt financing which would be secured from local commercial Banks and/or other financial institutions.





WAREHOUSES

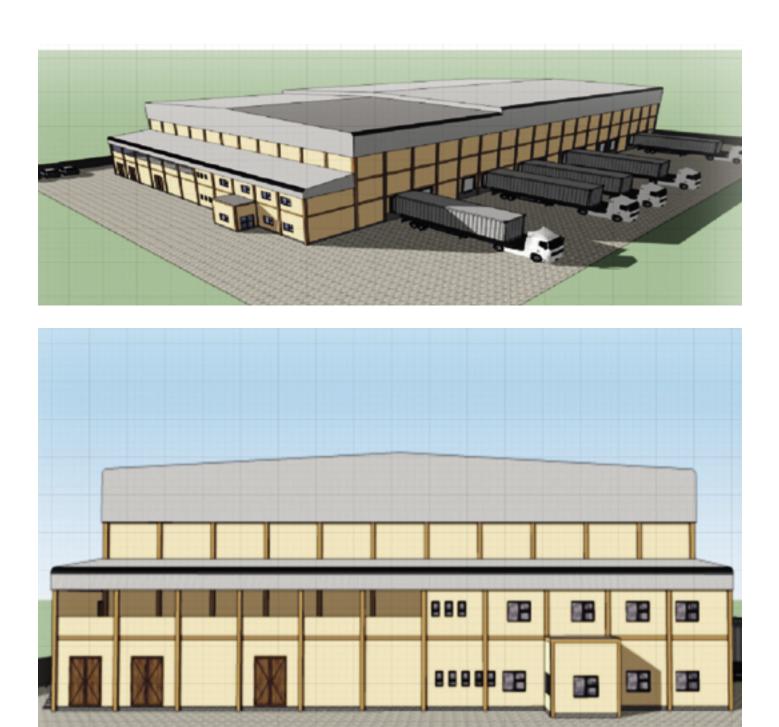
THE WAREHOUSES CONSIST OF: MEGA WAREHOUSE 1 - 500 M² MEGA WAREHOUSE 2 - 580 M² MEGA WAREHOUSE 3 - 658 M²

WAREHOUSE 1 - 251 M² WAREHOUSES 2-8 - 1.36 M² WAREHOUSES 9-1.2 - 2.36 M²

EACH WAREHOUSE CONTAINS ITS OWN ABLUTIONS AND KITCHENETTE.



Project Name: Walvis Bay Consolidated Cold Storage



Project Name:	Walvis Bay Consolidated Cold Storage
Company:	Walvis Bay Consolidated Cold Storage (Pty) Ltd.

Project Description

The company intends to construct a 10,000 metric tonnes, modern, high density, and multi commodity cold storage facility in the port city of Walvis Bay which will be offered for rental on time/capacity rate basis to the fishing companies, frozen fish importers, frozen chicken importers, and beef exporters. The proposed commercial cold storage will cover both chilled and frozen products across a range of commodities. In addition to storage the business will provide a range of additional services such as repackaging, weighing, handling and various sorting options to a broad range of customers. The Cold Storage facility will provide high-density storage for up to 10,000 metric tonnes of frozen fish, frozen chicken & meat products.

The business is about building a modern, large capacity commercial cold store that will provide a range of services to many local and international customers. There are several sectors through which the business will achieve sales. The company will provide a valuable outlet for the fishing industry especially for all companies awarded new fishing rights most of whom don't own their own cold storage facilities. The business will also service the critical need within the meat sector both frozen and chilled. The buoyant wholesale market for fish, meat and chicken will also be a key source of revenue as well as the retail sector which is performing strongly in the region. Food processors and fresh produce which are key areas of growth will be long-term areas of growth, revenues from this sector will be modest to start with but will become key market segments in the future.

Progress to Date

Feasibility studies, comprehensive business planning with financial viability studies, licensing, EIA, and designs have all been completed. Also, as part of the partnership with the Namibia Development Corporation (NDC), land to the value of N\$ 20m has been acquired.

Commercial Feasibility

The current conditions to establish a cold storage business in Walvis Bay are very favourable and the timing is right. It gives a significant advantage by having a modern cold storage facility and enables the business to become the premier Namibian owned and operated cold storage in the Country. There is a real opportunity to raise the bar when it comes to services and levels of efficiency through the use of the latest technology. The combination of several features such as strong corporate image, creative digital and other marketing, advanced technology and great service offering such as the client portal and 24/7 access will position the business as the leading cold storage in the region.

Currently, there is a shortage of commercial cold storage facilities in Walvis Bay with many companies directing products to South Africa to meet their needs. The demand for cold storage is also going to increase because of the increased traffic due to the port expansion. Currently, there is only one direct competitor in the market, hence there is a definite need for another cold store without diluting the supply or creating a price war. Africa is developing and in section three we see many indicators that point to significant growth in consumer demand and a maturing retail sector as trading shifts from informal to formal structures. This change is the driver and will create significant growth in the food sector bringing about growth in the cold storage sector. Although there is no detailed reports or figures on the cold storage market which can predict the size of the market parallel research from the consumer sectors are equally as valuable as it points to real demand.

Investment Required

The total project cost is equal to N\$ 110m/USD 8.5m and no financing has been secured.

An Equity and Debt financing deal is sought. As part of the partnership with the Namibia Development Corporation (NDC), land to the value of N\$ 20m has been given to the business in return for a 20% equity stake in the business. The remaining 80% shares will be shared between Walvis Bay Consolidated Cold Storage (Pty) Ltd and any potential investor, whereby the potential investor may acquire 40% or more shares as equity and WALVIS BAY Walvis Bay Consolidated Cold Storage (Pty) Ltd will retain the remaining 40% or fewer shares in the form of debt finance that will be serviced by Walvis Bay Consolidated Cold Storage (Pty) Ltd.

We can also look at a Build Operate and Transfer (BOT) deal structure for a period of 15-20 years.



Project Name: MTN 4G Infrastructure & Featurephone Assembly



Project Name:	MTN 4G Infrastructure & Featurephone Assembly
Company:	MTN Business Solutions Namibia (Pty) Ltd.

Project Description

MTN has taken the decision to deploy a data-only 4G mobile network in Namibia in 2022 covering 80% of the country's population in Phase 1, going up to around 95% by Phase 3.

There are several drivers for this decision outside of revenue growth and profitability. MTN's ethos is that everyone deserves the benefits of a modern, connected life. There is a direct correlation between broadband coverage growth and the growth in mean income per capita and GDP.

Some key strategic elements are that of smart feature phone penetration, rich media content availability, job creation, Internet of Things (IoT), mobile money, and bolstering the Namibian industry.

Parts for the handsets mentioned above will be procured from our partners in India and the US being Jio and Radisys. MTN will set up an assembly and packing plant in Namibia from where these devices will be distributed via our channel in Namibia, but also be exported across the continent of Africa.

The general target market for this venture is the low- to middle-income categories with a specific focus on feature phone users that do not have access to broadband internet. This will form around 60% of the customer base.

The financial model has been put through various stress tests and came out successful. The current model is built around extremely conservative market share projections ending at 15% in Year 10. In the current landscape MTC, the dominant player in the mobile space is enjoying 98% market share versus 2% held by Telecom Namibia, the only competitor in the space which has lost 5% over the past 3 years. Complacency from the incumbent dominant player is clear and their infrastructure is ageing.

Progress to Date

We have been working on this project since circa 2017 and have therefore made a great deal of progress in all aspects of the project.

At present, a full ECNS licence is held allowing us to deliver all forms of telecommunication services in the country. This includes licences in Bands 1, 20, 40, and 42. Most noteworthy are those of Band 20 which is 800Mhz spectrum, a frequency sought-after around the world, and Band 42 which positions us for 5G technology service delivery.

A full business plan, financial model, operations model, technical design, and transmission network design have been completed. The RFQ for technology has been concluded and final vendor selection is underway. Strategic partners include the likes of Facebook, Jio, Radisys, Vodacom, and China Mobile International. Existing passive infrastructure will be used for the first phase of rollout giving MTN Namibia access to 80% of the country's population without needing to construct transmission towers or acquire land.

With the help of Facebook, we have a complete view of where the active population is, what services they are consuming from a broadband perspective, and what quality of service they are getting in terms of speed, latency, and overall quality at a granular level with nationwide heatmaps and more.

Commercial Feasibility

An extremely thorough and granular financial model has been developed tabs covering areas like CAPEX, OPEX, overheads, cost of sale, network rollout, marketing spend, retail presence, prepaid and post-paid packages, total addressable market, customer acquisition, attrition and dormancy, funding, repayment of funds including interest, professional services, and a great deal more.

For the sake of being conservative to present a worst-case scenario, this model is structured to show only 15% market share after 10 years of operation. In that very conservative view, the model still holds firm and is profitable. Our expectation is that we will have around 40 – 45% market share at that point in time.

Some key highlights are as follows:

- Peak funding at under USD 18m
- First cash flow positive month at month 20
- Cash flow break-even in month 57
- Cumulative revenue at USD 386m
- Cumulative EBIT at USD 85.7m

In terms of the market, there are 2 players present being MTC and Telecom Mobile. MTC is enjoying 98% market share while Telecom Mobile has the balance. Our vision is not to move to the majority market share player but rather to move to 2nd place quickly. Based on the abovementioned numbers, we will be in that position by Month 19 at the latest.

Our network will be an open-access radio network and MTN Namibia will allow all providers to share this infrastructure and services for the betterment of all communities, rural and urban. Digital provider – MTN Namibia will have an open API platform to encourage the development and deployment of digital services locally and internationally

We have done several interviews with individuals and corporate customers to gauge market sentiment with regards to the incumbent players and it is clear that a strong third operator will be welcomed in all segments.

Investment Required

Peak funding for this project is at USD 17.7m in month 18.

We plan to workshop a drawdown schedule with the successful funder to ensure that sufficient funds are available so as to not hamper the project's efficiency and also that the funder's interests are kept in mind to speak to their risk and governance strategies. Each drawdown will be specifically defined in accordance with the financial model to cater for hardware, software, and working capital. Each drawdown will have clearly defined and measurable conditions precedent to hold the organisation accountable for deliverables and to add impetus to operational efficiency.

The following are some of the major CAPEX requirements for this project:

- Mobile Core (Routing and Switching equipment)
- OSS/BSS (Operations and Business systems)
- VAS platform (Value added services like rich content, financial services etc)
- Transmission equipment (Backhaul between sites and mobile core)
- RAN sites (Radio Access Network transmitters)
- Retail outlet builds
- Datacentre expansion
- Datacentre active infrastructure (Servers and storage)
- Virtualisation software
- Assembly plant build
- IT systems

Working capital is also an aspect critical to the project's success. Some of the key factors are as follows:

- Transmission licence/spectrum fees
- Acquisition of experienced human capital
- Current human capital costs
- Site rental and power costs
- DR datacentre rental
- OSS/BSS licence costs
- Channel partner acquisition drive
- Channel commissions
- Handset stock
- Marketing
- Logistics
- Mobile third-party wholesale roaming costs
- Interconnect costs (Subscribers calling to other networks)
- Credit vetting costs
- Website and Application development

The above is not exhaustive.

In terms of investment, various models can be explored. It can be a pure financing model where monies are repaid with interest over time. Alternatively, the investment can be translated into equity whether it be for the full amount invested or for a portion thereof with the delta as debt financing.

