GreenPro Africa

(Botswana registered company)

The Purpose of this Presentation is to show GreenPro Africa's capabilities through highlighting aspects of some of the business and engineering consultation work done by GreenPro Africa.

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UAE

Objectives;

drought feeding program for Middle East Camel and other ruminants

Multi-Discipline Engineering & Agriculture Solutions for Camel feeding plan/solution/strategy

Client: in Dubai: **NGCC**
Year 2021

Business leader JR Botha and J Owhin (engineer) stayed in Dubai for 3-months to understand the business problems. The Engineering team operated from South Africa to support the business leader in Dubai.
Deliver a business design to technically overcome the problem and to generate profits with the cultivation of its own animal feed in the desert.

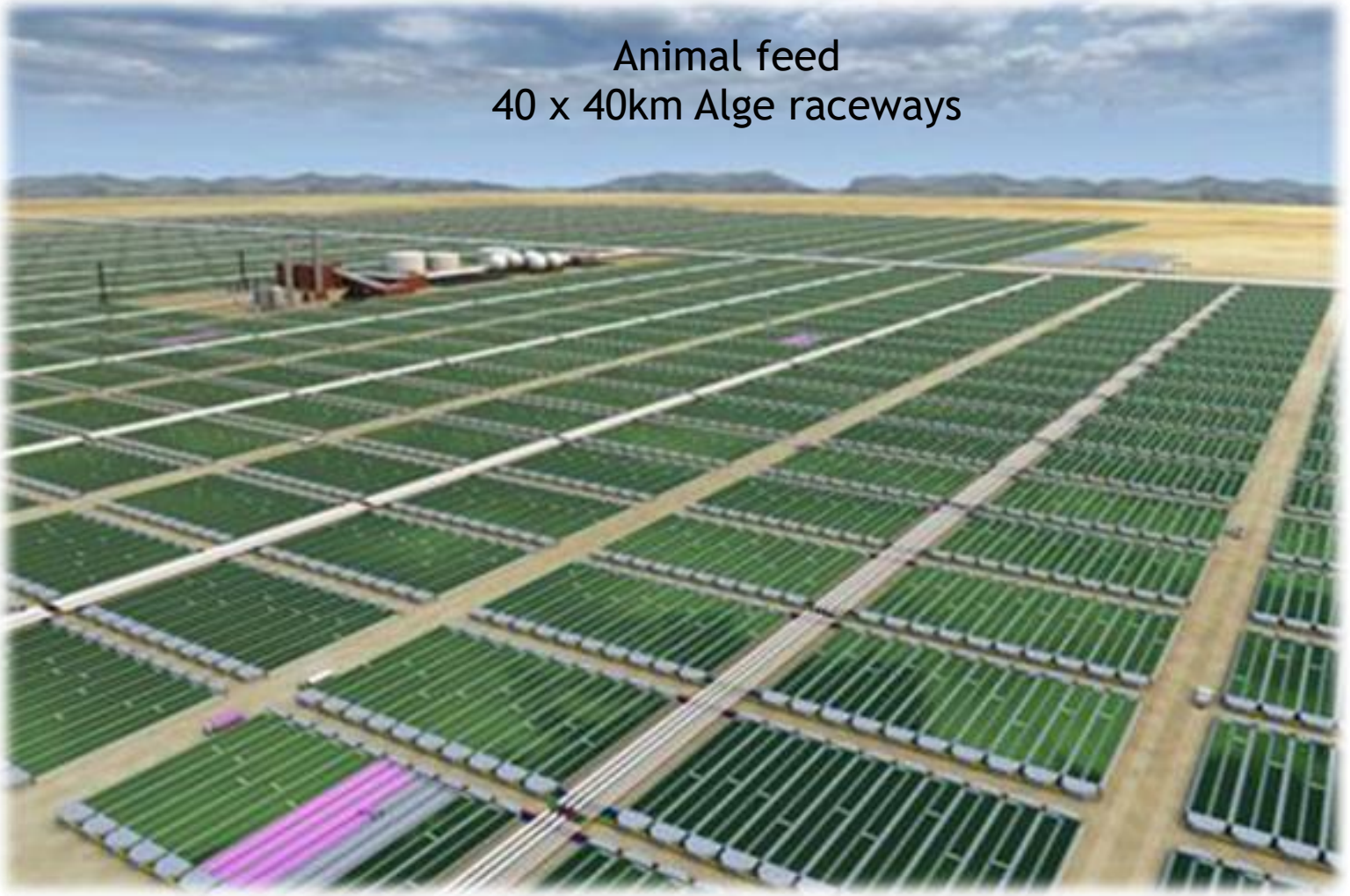
Objective:

For the Middle East to be self-sufficient in respect of Ruminant animal feed

And to be a substantial Ruminant animal feed exporter

The Solution:

- Design an Algae Farm to feed 4 mill large animal units (Cattle, Camels,..)
  - Land (160,000 ha) in the desert
    - Inputs:
      - Sunlight
      - Seawater
      - Source of Nitrates
      - Calcium Carbonate
    - Seed, fertilizer and water retention agent for roughage for the first 4 years. After that the system is sustainable
- Infrastructures. Raceways with circulating water and algae Transparently Covered. Evaporation and condensation.
  - Irrigated Roughage. 440,000 ha
    - USD 226,835 million



NAMIBIA

The Client requested the identification of a suitable location to grow dates and to develop a Business plan for such a location. The eventual identified location was in Namibia.

Client: in Dubai: **NGCC**
Year 2021

The Client requested the identification of a suitable location to grow dates and to develop a Business plan for such a venture. The eventual identified location was in Namibia

- We identified and appoint the most competent person in Nambia (dates expert) to help us with the land identification process for farming dates in Namibia.
- Land was identified on 2 spots, with the best suitable land near the Neckartal dam in Namibia.
- Completed soil and climate studies.
- Identified 500Ha within the irrigation scheme of Neckartal dam that will be ideally suited for dates farming in the dry and hot climate of Namibia.
- Enough water will be made available via the Neckartal dam irrigation scheme.
- COMPLETE Business plan got design with logistical and export potential of dates to the UAE.

ZAMBIA

Business Plan for a Diversified Multi-Product Commercial Farm in Zambia based on regenerative farming principles

Client: **Veterans Village Enterprise GRP**
Year 2022

Requirement is to identify an ideal large-scale farm in ZAMBIA to breed goats, dairy farm with processing for cheese all for export.
Identify a 25,000 Ha land in ZAMBIA and deliver the business plan and technical designs for the opportunity. It was also designed to integrate more than 1,000 young farmers across Zambia to participate.

Farm's Business Design

Establish the Robust financial core (**Essential Oil and Avocado**) as the financial anchor for the farm to be sustainable.

- Essential Oils in a Controlled Growing environment.
- Irrigation Crop Farming. Wheat, Maize & Soya on 4,430Ha,
- Holistic Managed Livestock Farming on 7,420Ha,
- Avocados. 1,300 ha orchard, packing & processing
- Hydroponic strawberries in vertical hydroponic greenhouse and blueberries under shade netting
- Tilapia breeding in large ponds to be used as irrigation dams.
- USD368 million to purchase land, build the farms assets and alternative and biogas energy for the farm, secure cows and goats, with the operational cost for first 5 years.
- Completed full business case and plan for the business owners.

Zambia Farm Proposal with diverse business units

USD368 Mill needed for: Essential Oils, Irrigation Crops, and Holistic Managed Livestock Farm

Vertical Hydroponic Essential Oil Farm on 150Ha

288 workers

12- ton Extracts per year

190Mil USD funding

69 Mil USD profit from yr-2

341Mil USD profit in full production

Irrigation Crop Farming. Wheat, Maize & Soya on 4,430Ha

70 workers

Wheat 19,200-ton per year

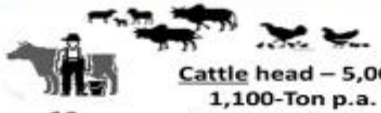
Maize 38,400-ton per year

Soya 9,600-ton per year

61 Mil USD funding

12Mil USD profit when in production

Holistic Livestock Farming on 7,420Ha



60 workers

Include Tannery, Abattoir & Butchery

Cattle head – 5,000
1,100-Ton p.a.

Sheep x 10,000
200-Ton p.a.
Free range

Hens x 20,000
-Ton meat & 5.5 mill eggs p.a.

Rabbit does x 400
15-Ton p.a.

40 Mil USD funding

7 Mil USD profit pa when in full production

Securing of Land 35,000Ha

Land selection, EIA studies, land purchase, preparation, fencing, de-bushing and business set-up

59Mil USD funding

151 Mil USD From Profits: Avocado farm with packing, cooling & limited processing, Strawberries and Blue Berries with packaging and cooling & Cage Tilapia Farming with Processing

Avocado Orchard with packing, cooling & limited (10%) processing facilities on 1,690Ha

230 workers

25,740-Ton fruit p.a. yr-10

2,860-Ton processed fruit p.a. yr-10

40Mil USD invested from profits

57Mil USD profit pa. in year 7

228Mil USD profit from year-10

4.5-ha vert. hydroponic Strawberries & 60-ha of hor. Hydroponic Blue berries with pack & cooling facilities on 100Ha

5,023-Ton p.a. yr-5

1,029-Ton p.a. yr-5

1,470 p.a year 10

1530 workers

80Mil USD invested from profits

14Mil USD profit from year-5

8Mil USD profit from year-9

Cage net fish farm in irrigation reservoirs with processing facility on 10Ha on land

233 workers

600-Ton fish fillets p.a.

280-Ton fish meal p.a.

26Mil USD invested from profits

2.5Mil USD profit in full production

Avocados, Blue Berries, Strawberries, and fish fillets produced for the export market

+USD5 mill for Livestock Farming Year 2

Fish farming supports food security through social development plans and products for

LESOTHO

Design a Business Plan to establish a trout fish “aquaponics” farm inside an existing large warehouse with processing facilities

Client: **REXIVISTA** in Lesotho
Year 2017
Requirement is to establish a business and technical design for a TROUT FISH aquaponics farm in Lesotho inside an existing large and unused warehouse facility.

- Where: Mafeteng town in Lesotho
- In-house establishment: within existing ceramic factory facility; excellent climate control
- Production capacity: 6000 tons of fish per year; 105 tons of fresh vegetables; 600 tons of fishmeal
- Power: solar power with unique battery power bank for 24-hour main power supply: back-up power via diesel generator and on grid power supply
- Required area: 40ha for fish tanks, vegetables greenhouses & fish processing facility
- Fish factory produce fish fillets, fish meal, fish cakes, fish paste will be processed
- Fish feed: the facility will eventually produce its own quality fish feed
- Size: The venture will require 60,000 m2 building area in total (all the fish tanks & processing facility under roof and greenhouses). The fish tank raceways deployment will be 132 x dual raceways (single is 3.6 x 22 meter). It also caters for 21 x 300 m2 vegetable tunnels.
- COMPLETED full business case for client to start with implementation and operation.

South Africa

Business Design for the Establishment and Operations of the Planned "Zuurbekom" sustainable Agricultural Farm and College on the existing farmland nearby Johannesburg metro, in South Africa

Client: MGO & Gauteng Province in RSA
Year 2025

Requirement is to Design a Business Plan for the Establishment and Operations of the Planned "Zuurbekom" sustainable Agricultural Farm and College on the existing farmland nearby Johannesburg metro, in South Africa, for the supply of fresh produce to the Johannesburg Fresh Market.

- The farm is 1,832-ha in size and exist since the early 1900's as a grain and vegetable irrigation farm that supplied produce to the Johannesburg Fresh Produce Market. The farm collapsed over a period of 10 years without commercial farmers on the land.
- (a) Soweto township adjacent the farm has a population of 1 895 921.
  (b) Johannesburg City, 35km from the farm with a population of 6 445 000.
  (c) Mogale City is 29km from the farm with a population of 160,000 people.
- Financial Request for **USD41.963-million.**
- The loan is 70% Grant funding and 30% Loan funding.

This Zuurbekom Agri-project is designed to maximize productivity while fostering environmental stewardship and contributing directly and indirectly to food security in SA.

The Planned Zuurbekom Agricultural Farm and College with its Anchor Farming business unit are poised to become a benchmark for agricultural success, setting a precedent for future developments in sustainable farming and agribusiness education.

The inclusion of a dedicated agricultural college ensures that aspiring farmers receive practical education and skills development, ultimately directly contributing to food security and job creation.

Regenerative farming and organic farming principles will be used on the farm, and it will form part of the education curriculum for the students.

COMPLETED The business plan that is sustainable with the minimum risk.

Food production and profits:

Produce and Yield [1]:

Grain yield:

Crop Summury	Ha pa	Yield Ton pa	Sales. USD pa
Grain		**2 941**	**1 209 398**
Maize. Sum.	75	383	119 688
Wheat. Win.	75	338	106 452
Soya Beans. Sum.	75	177	82 812
Barley. Win.	75	300	89 869
Sunflower. Sum.	75	188	92 218
Oats Win.	75	225	58 211
Groundnuts. Sum.	75	169	217 950
Canola. Win.	75	188	81 699
Dry Beans Sum.	75	113	91 912
Rye Win.	75	263	64 338
Sorgum Sum.	75	300	122 549
Treiticale Win.	75	300	81 699

Vegetables yield:

Crop Summury	Ha pa	Yield Ton pa	Sales. USD pa
Vegetables		**63 480**	**29 261 405**
Tomatoes. Sum.	120	9 600	4 743 360
Cabbage. Win	120	6 600	1 941 176
Cumcumbers. Sum	240	6 000	3 676 471
Carrots. Win	120	4 200	1 544 118
Bell Peppers. Sum	240	6 000	3 240 000
Cauliflower. Win	240	8 400	5 764 706
Punpkins. Sum	120	3 000	588 235
Broccoli. Win	120	2400	928 800
Watermellons. Sum	240	8400	2 676 471
Watermelons. Sum	120	3600	1 758 069
Onions. Win	120	3840	1 694 118
Radishes. Win	120	1440	705 882

Food production and profits:

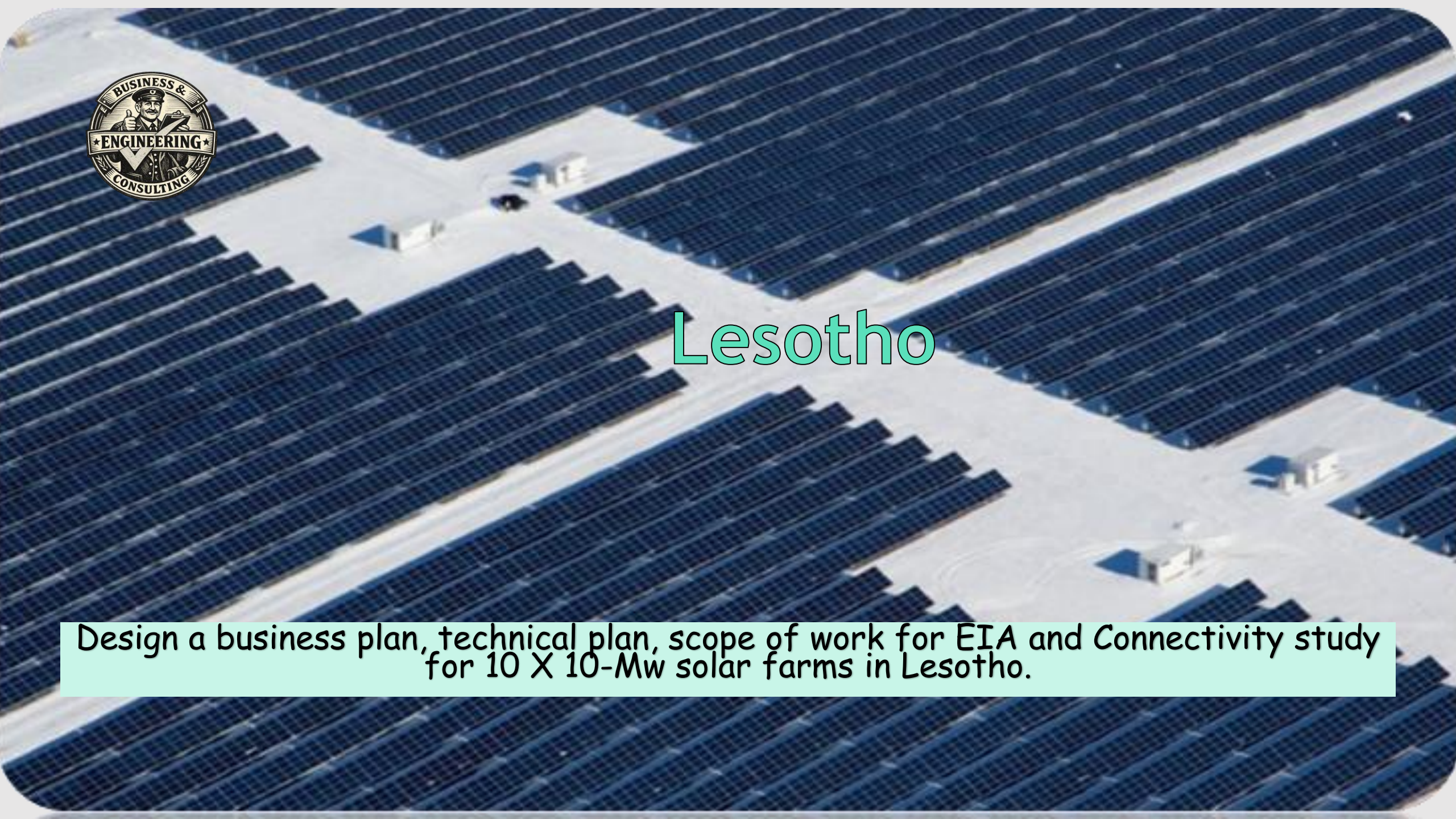
Produce and Yield [2]:

Hydroponic Vegetables yield:

Crop Summury	Ha pa	Yield Ton pa	Sales. USD pa
Hydroponic Vegetable Greenhouse		**763**	**6 073 860**
Butter Lettuce		83	585 090
Green Frilly Lettuce		100	702 107
Baby leaf salad		83	613 653
Lettuce and herb mix		83	585 090
Herbs		77	1 564 413
Strawberries		56	318 217
Baby Spinach		83	543 166
Lettuce Crunche		116	819 125
Green Peppers		82	343 000.3

Aquaponics, Prickly Pears yield:

Crop Summury	Ha pa	Yield Ton pa	Sales. USD pa
Aquaponics		**1 414**	**1 446 623**
Fssh		192	313 725
Vegetables		1 222	1 132 898
Prickly Pears		**3 163**	**12 036 249**
Fruit and processed products	50	3 163	12 036 249
Added Value frmm Vegetable and grain processing			**37 157 229**
Essential Oils			**71 250 106**
Total Sales			**158 434 871**



Lesotho

Design a business plan, technical plan, scope of work for EIA and Connectivity study for 10 X 10-Mw solar farms in Lesotho.

Client: REXIVISTA
2021

Design and Plan the Business Plan, Installation Plan and Technical Plan for 10 X 10-Mw solar farms for LESOTHO. We completed the Feasibility Study and co-ordinate the EIA and Gride Connectivity Study. Support the project owner with the negotiations of the Power Purchase agreement.

Scope of the Project:

The Scope of the Project is for the development, construction and operation of a Solar Power Plant with a nominal PV capacity of 10 Mega Watts (MWp). The solar power plant will be equipped with a cluster of photovoltaic (PV) panel arrays, which will be installed on a fixed angle system. The Solar Power Plant will be situated near to Thaba-Tseka, a town in the Thaba-Tseka region of Lesotho. The project will be under a generation license and PPA from LEC. The power produced will be sold to the LEC, the National Utility through LEWA under a Power Purchase Agreement, assuring a market for the energy for a fixed period.

Rexivista successfully secured the agreement with the Government to install and operate [10 x] 10-MW PV solar farms in Lesotho.

Rexivista secured the financial services of a funder to supply grant finances for the project once the "*Power Purchase Agreement*" PPA are signed

Project Planning:

The land offered by Government for the PV solar farm is situated on top of a mountain outside the Thaba-Tseka town which required more than the usual pre-planning analysis. Matters such as water supply, road building and terrain preparation occupied many hours of desktop studies and negotiations with civil works, water, and geological experts to understand the complexity thereof.

The 1st site got planned and designed high up in the mountains with lots of snow in the winter. A special road got design to take up the assets to the site on top of the mountain with serious logistical challenges.

NIGERIA

Business and Technical design to Establish a world standard meat and dairy industry in Niger State of Nigeria to facilitate increased Internally Generated Revenue -IGR, with focus on further empowering more women and youth in the agri-industry

Client: KSA – AGROLOG CONSORTIUM
2022

Business and Technical design to Establish a world standard meat and dairy industry in Niger State of Nigeria

The to be established business is largely influenced by the economic and demographic profiles of The Niger State. Some of the important attributes of these influences are:

- About 46% of its population is under the age of 15. This means that about 80,000 new young entrants are entering the labor market every year.
- About 51% of the population fall into the potentially economic active, 15 to 65 years of age group.
- Unemployment in the state is about 40%.
- 9% of the urban people and 53% of the rural people in Nigeria, live in what is classed as ‘’Extreme Poverty”.
- The population’s average life expectancy is only 48 years, resulting in only 3% of the “one dependent” is over 65.
- FOOD security and protein intake of the population is in a desperate state and requires a proper and large meat industry to overcome the many diseases because of malnutrition.

- 2 x 350 Cattle slaughter facilities per day Abattoirs with a feedlot facility.
- Each abattoir will be slaughtering and processing 350 cattle and 2,100 sheep or goats per day.
- Suitable land must be allocated to cultivate roughage for the animals.
- Animals will also be purchased from the local farmers from their herds and flocks and test the animals before slaughtering.
- When in full production, the division delivers USD127 million per year Nett cash before tax.
- The abattoir division will create 1,715 jobs.

SOUTH AFRICA

Design a business plan, technical plan, and installation plan for a Solar Powered Irrigation System for a new wine farm establishment in the Cape Province, RSA

Client: **Rockbelt Ridge** (New Wine Estate)
2024

Technical and Business plan to Establish a Solar Irrigation Water Pumping and storage System for new Rockbelt Ridge Farm near Robertson in the Western Cape, to irrigate from the Berg River.

The client's request to GreenPro:

- To Establish a Solar Irrigation Water Pumping and Storage System for The Rockbelt Ridge Farm near Robertson in the Western Cape, to irrigate from the Berg River.
- Need technical design and costing to irrigate newly established vineyard with solar energy. The design must have a full costing model and business plan to be submitted to a funder for approval.
- It must include the Extraction/pump and storage infrastructures.
- The farm will be off grid and it requires alternative energy infrastructure for all operational facilities on the farm.
- Completed the full water pumping and alternative energy plan.

Design and develop a diverse farming venture (vertical hydroponics SMART greenhouse, essential oils and vegetables under shade netting) for Botswana with excellent under ground water resources

Client: **Botswana Development Corporation**

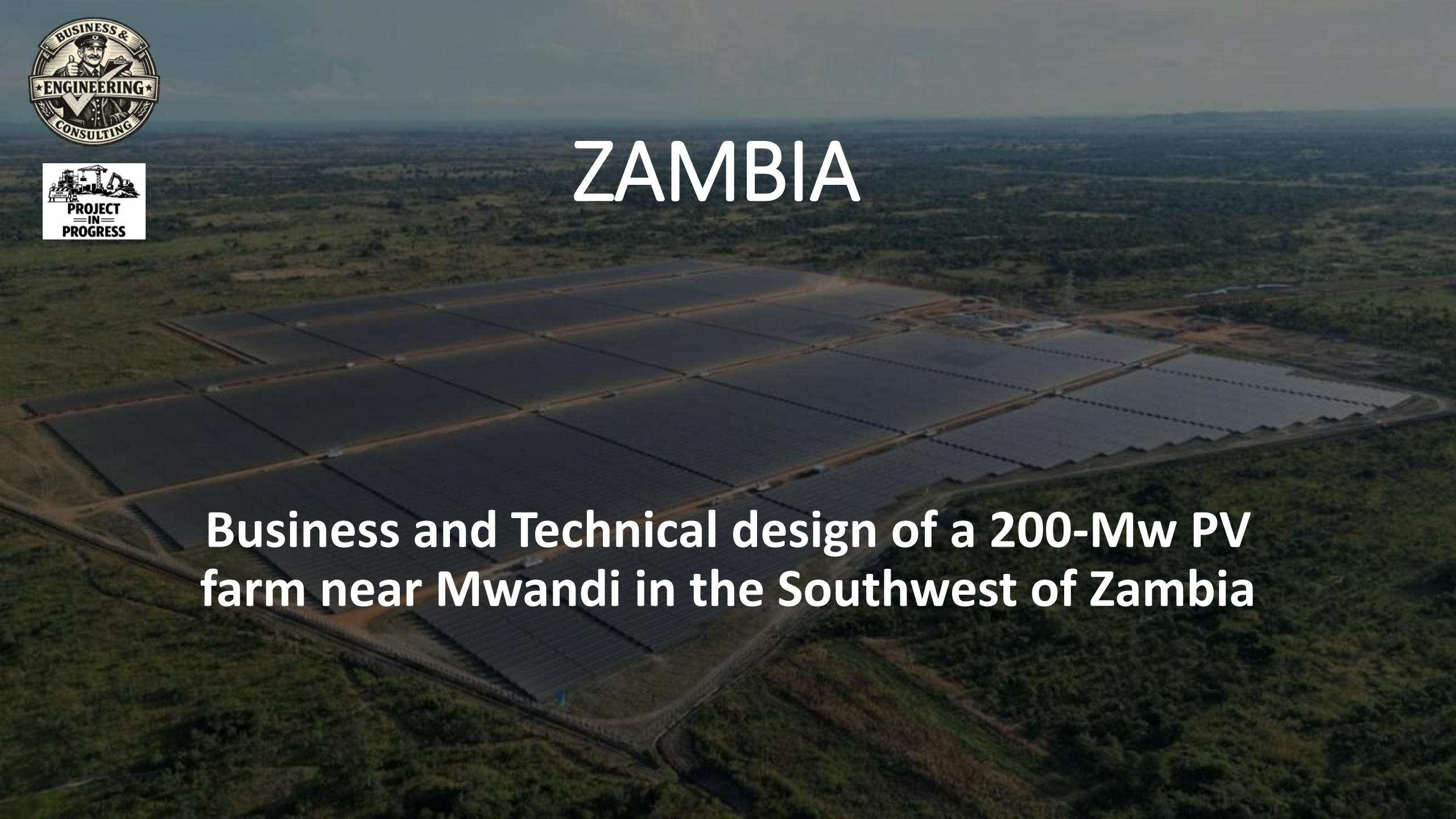
2023

Design business plan, Installation Plan and Technical Plan for a $30-million horticulture farming venture in Botswana, near Molalatau town.

All approvals and land lease agreements for 300Ha got secured for the project.

a. One [1] Vertical Hydroponic Greenhouse to grow leafy greens and strawberries, and delivering produce to the market for 12 months of the year,
b. 30-Ha Irrigated cultivation of vegetables under shade netting,
c. 40-Ha Irrigated prickly pear cultivation in soil and processing thereof,
d. 120-Ha Essential oil cultivation in soil and extracting of the oils,
e. Shared sorting, packaging, processing, extracting, refrigeration and logistical infrastructures for the hydroponic greenhouse and the shade netting fresh produce production units.

- The plan will annually supply 1,587 tons of fresh produce and vegetables to the retailers of Botswana.
- 835 ton of prickly pear fresh fruit, pulp, seed oil and flours annually.
- 63 ton of essential oils annually
- NPAT year 3 USD-million and Average NPAT from Year 3 to 12 is USD8.5 million


ZAMBIA
Business and Technical design of a 200-Mw PV farm near Mwandi in the Southwest of Zambia

Client: 2lee Technologies
2025

Appointed as Business and Technical partner for the project.
Did 2 x feasibility studies to identify the best site on the Barotse Kingdom land. Design the 200-Mw PV farms technology for ZESCO approval that was successfully completed. Thereafter completed the PPA negotiations with ZESCO to create a fundable PPA.

Attribute	Phase 1	Phase 2
PV Farm Architecture	200-MWp PV with 200-MW Grid Transformers	200-MWp PV with 517.5-MWhr (nominally 53.3% of daily production) battery storage
IRR (After Tax and after loan instalments Cash)	5.7%	6.0%
Minimum Cashflow turning point. USD million	USD5.4-million in year 3	USD10.9-million in the 3rd year of phase 2
Capex Risk Provision. USD million	USD5.2-million	USD10.5-million
Average Nett Cash After Tax as % of Sales	48%	43%
Average Debt Serve Coverage Ratio	3.2	3.2
Average Nett Cach after Tax. USD-million	USD15.5-million	USD23.7-million

ANGOLA South

- The feasibility study and business development of a 30,000-ha farm in Angola
- In the districts of Dirico and Mucusso in the South of the Cuando Province
- Next to the Okavango river, across the border from Namibian
- For the development of a 4,000Ha soya beans farm with oil processing facility and the processing of animal feed pellets for LEP

Pre-studies and processes followed to determine the Master business plan

Determine the Feasibility of project

It allows us to identify all risks with the project upfront and how to mitigate those risks.

It is the foundation for smarter planning, better implementation and to enhance the profits of the venture.

It will save time and money and ensure that all stakeholders are focussed on the same goals.

To identify the soil types, water availability and cleanness, the climate conditions over many years will be required to make informed decisions to successfully identify the plant cultivars and to determine best yields.

Studied 36yrs climatological data of the area.

Identify the farming model

Identification of a farming model is crucial for und erstanding the strategies and p ractices that drive agricultural productivity and sustainability.

Sustainable Agriculture: It includes practices like crop rotation, organic farming, and agroforestry.

Precision Agriculture: Utilizes technology to monitor and manage field inconsistency in crops, aiming to optimize returns on inputs while preserving resources.

Integrated Farming Systems (IFS): Combines various farming practices to create a more sustainable and efficient agricultural system, promoting various crop diversities, resource efficiency, and sustainability.

Find the best, cost effective technologies

Processing of yields: Value must be added to produce before it leaves the farm.

Key measurable criteria: It must be energy efficient, it must be extremely productive and must be easy to maintain.

Products must have a excellent track record operating in Africa.

Technology must be scalable to cater for growth.

Write up the Master Business Plan of the farm

To provide a clear master plan for the business, its owners and the management team.

It identifies the goals and objectives of the business and each employers role in the venture.

It will outline financial objectives, profits and strategies for the venture with ore identified risks to be managed.

Having a master business plan is a strategic investment that can lead to the success and sustainability of a business.

Thank You