

iHAT Municipal Solution

Quelimane 33MW Solar Minigrid Poultry Project



Current Scenario



Domestic supply continues to lag behind imports in spite of the growing demand



'ear	Poultry Imports
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13,000 metric tons



















LOCAL DEMAND

200,000 metric tons

Mozambique's chicken consumption was 6kgs per capita in 2015. The potential poultry output was estimated at 4.4 million birds although the country's farms produced only 2.1 million birds.

Imported chicken meat accounted for more than 67.48% of Mozambique's total chicken consumption in 2014

LOCAL **SUPPLY**

66,000 metric tons



Gaps in Current Poultry Industry

Following are the challenges facing the industry that have long been highlighted in government policy documents but have received limited empirical attention



Addressing these constraints is critically important to the growth of Mozambique's chicken industry and certainly deserve research attention.



Project Aim

To set-up a scalable and selfsustaining poultry industry, such that it becomes self reliant in food supply and boosts economic growth

Globally, the poultry industry contributes to the world economy in various ways, mainly:



Enhances GDP profiles and provides high revenue from exports

Provides a sustainable source of livelihood and protein for food



6 CLEAN WATER AND SANITATION





















To develop the sector throughout the value chain

Project Deliverables

- Feed mills
- Hatcheries
- Slaughtering facilities
- Processing facilities
- Cold stores
- Consumer

Economic Deliverables

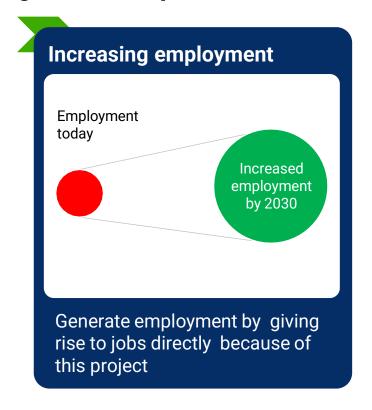
- Housing
- Sanitation
- Schools and Education
- Hospitals and Health
- Renewable power supply
- Research and Development



Project Objectives

To see the poultry industry make a significant impact on GDP of the country by 2030







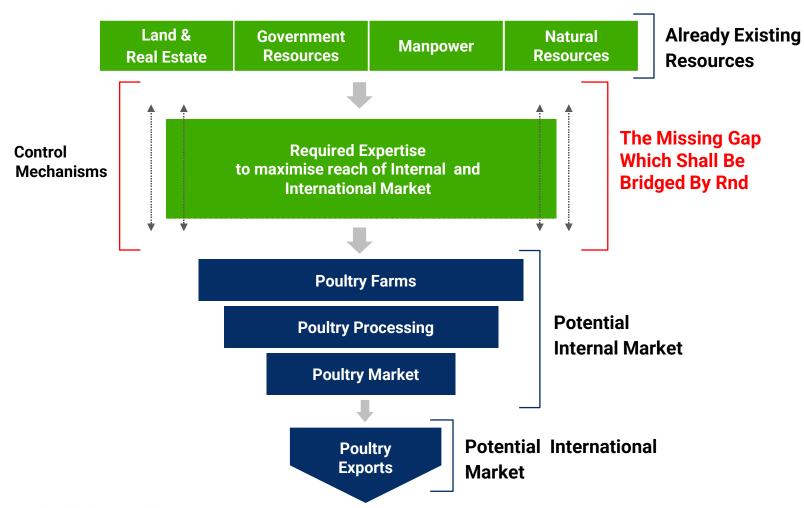
Advantage >

This project is able to leverage technology to maximize the available resources within Mozambique to operate at the highest efficiency and lowest costs.



Project Overview

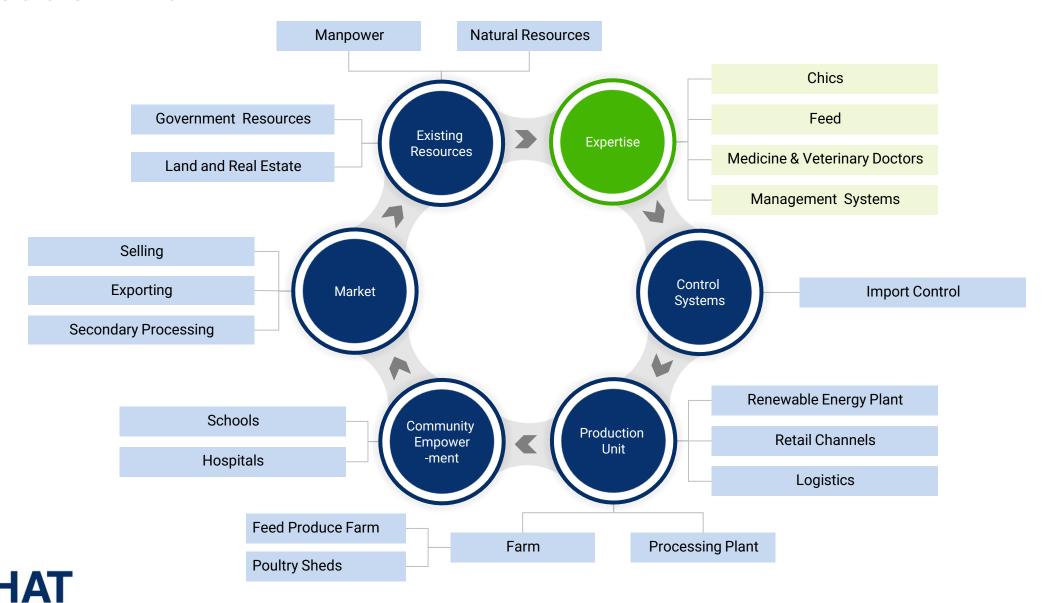
Expertise brought by iHAT and RND will help Mozambique maximise its potential with existing resources.







Execution Plan



Project Implementation

Phase 1

INFRASTRUCTURE



- Broiler house
- Feed plant
- Processing facility
- Training facility
- Setting up renewable energy hubs to run these facilities
- Institutional and Retail outlets

Phase 2

FARMS & TECHNOLOGY



- Growing 60-70% of farming for soya and maize domestically
- Setting up of Pharma Companies for vaccines and medicines for birds
- Setting up of Hatcheries
- and Parent farms
- New farming technology implementation

Phase 3

COMMUNITY DEVELOPMENT



- Hospital
- School
- Housing for project
- workers
- Sanitation
- Drinking water
- Family Insurance
- Training institute



Unit Layout

















Why is poultry a better solution?

Less investment*

Optimum utilization of the bird

Minimal wastage

Highest Protein production per square foot*

Lowest carbon footprint in the meat

Processing industry*

Food security for the country

More scalable*

*in comparison with other meat processing industries





Outcomes

Self Sustaining Poultry Project

Food Security for Mozambique

Safe Hygiene poultry meat for end users

Ancillary jobs & business opportunities for locals in terms of setting up of poultry farms and retail outlets

Education for children for neighboring villages

Better sanitation & housing for people

Hospitals & medical treatments for people

Trained and skilled manpower





Project Requirement



Direct Requirements

Every project would require

• Land: 75 acres

• Human Resource: 1000 people

Capital: USD 95 million

Indirect Requirements

- Government Subsidies
- Land
- Partial Funding
- Licensing
- Policy creation in favour of
- domestic meat production
- Reduction of import duties on
- raw materials
- Ban on imports of chicken in phases



Expertise in Poultry

technical know- how as well

as funding for this project

The expertise that RND brings to this project comes from over 30 years of experience

Expertise in setting up poultry More than 30 years of projects in India and Africa with Expert partners in End-to-end solutions for the experience and knowledge more than 4 projects already renewable energy poultry industry - from broiler of the industry globally implemented in Nigeria solutions. farms to retail outlets Qualified partners with Able to set up distribution Backed by credible NGO's for

channels in Mozambique and

other countries of Africa for the

sale of chicken

setting up of schools /

hospitals & sanitation projects

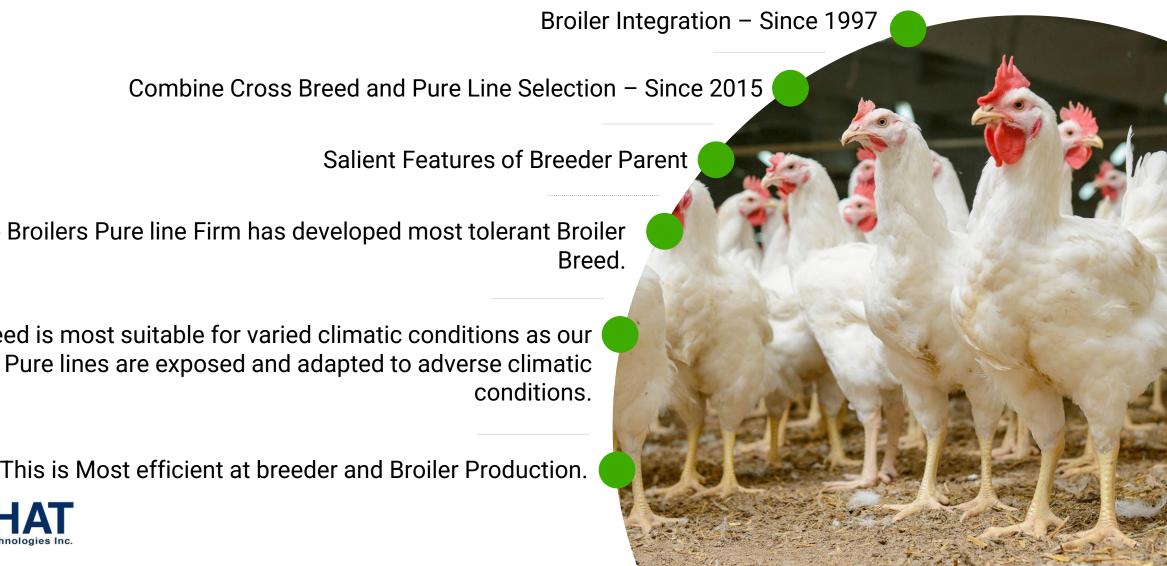


The Introduction Of A New Breed

Combine Cross Breed and Pure Line Selection – Since 2015 Salient Features of Breeder Parent Avee Broilers Pure line Firm has developed most tolerant Broiler Breed. Breed is most suitable for varied climatic conditions as our

This is Most efficient at breeder and Broiler Production.





The Introduction Of A New Breed



"AVEE 395" has been designed to produce a well balanced package that produces a broiler with outstanding meat yield and breast yield.



At the same time this has the genetic potential to produce a large number of hatching eggs.



This unique and well balanced breeder female is the result of AVEE Broilers Progressive genetic improvement to produce breeders which will perform in extreme climate at breeder level.



And it gives exceptional broiler performance at broilers level with good FCR, livability and processing yield.



Salient Features of Broiler bird



Higher Meat Yield



Higher Breast Meat Yie<u>ld</u>



Better Leg Strength – Shank Length & Girth



Suitable for Adverse Climatic Conditions particularly Hot & Humid Conditions



High Livability in Boilers.



Better FCR



Addittion, Clean Water and Sanitation SDG6

Create Economic Growth

Access to safe water at home gives families more time to pursue education and work opportunities, reduces health expenses and helps breaking the cycle of poverty

Saving lives

Almost 3 ½ million people die every year because of water scarcity and hygienerelated causes— Watergen can change it!

Improving children's lives and education

Children are often responsible for collecting water for their families. This takes time away from school and play. Access to safe water and sanitation will change this

Improving health

Watergen prevents diseases related to contamination of water resources or aged and corrupted infrastructure (water pipes)





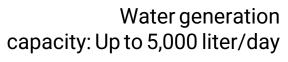
Helping the environment

Using Watergen's technology reduce plastic and save water transport



Watergen Large Scale (LS)

Industrial renewable source of drinking water for cities, villages, factories, and areas where clean water is not available or inaccessible





Water purification technology: Sediment filtration, mineralization, activated carbon, microbiological treatment



Air Filtration: Multimedia air filtration cascade







Power: 3 phase 380V / 50Hz





Dimensions (LxWxH): 3.00m x 2.80m x 2.38m

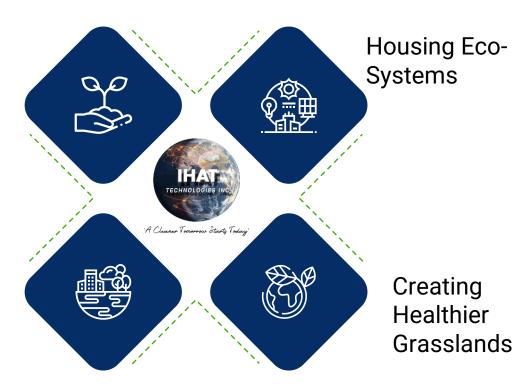


iHAT's Nature-based Solutions

- iHATs commitment to the environment tailors Nature-Based solutions for the community.
- As you might imagine the construction of such proposed power generation sites will take a toll on the environment itself.
- IHAT will ensure the construction will be left a clean as possible and offset by introducing Nature-Based Solutions in surrounding nearby areas

Tree planting

These programs contribute to a healthy environment while generating income for the local communities through the sale of carbon credits.







iHAT Expertise in Renewable energy solutions



IHAT Technologies Inc. (IHAT) is a renewable energy solutions, Green hydrogen and E-Fuels hubs





Geothermal Technology





Solar Technology



Power Generators

iHAT Technologies Inc. is creating a 33MW solar power plant minigrid solution that shall enable the project to not only be self sufficient, but also provide excess electricity for local community consumers.







To pave the way for a cleaner, brighter future for generations to come.



To Pioneer in a new sustainable Green Energy economy.



To prove a zero emissions municipality and country ARE possible so that neighboring cities, provinces, countries and the world will be encouraged to follow in the footsteps.



Specifically, through well planned infrastructure, tackling sector by sector with opening concentration on Power Systems, Transport and fuel cell generators to be completely Green by 2030.



To build up a new economy developing Local citizens, training them to become leaders and experts in this emerging market.





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