

ITMM 581, Information Technology Entrepreneurship

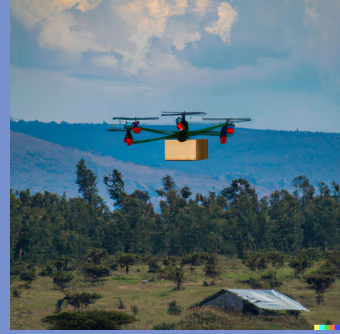
***Haraka Dawwa*** 



A GROUP PRESENTATION BY-

AHMAD YAMIEN, POOJA SETHI, M. SHAHRUKH KHAN & VIKAS SANIL

## *Company Overview:*



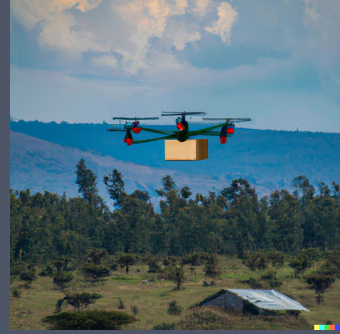
Harakadawa will bring efficient network of medical supply to rural population of the Kenya. We will be the future medical store in the sky, an aerial supplier which will provide local urban medical store experience to rural population.

Our **mission** is to create aerial medication system that serves all humans equally. We will be providing anti-venom to the emergency patients who has bitten by the snakes especially in the rural areas and reaching out every corner of the country to improve the healthcare services.

With the emerging technology in the world aerial deliveries have also become a new trend in the healthcare systems. We are making an impact into the Kenyan market by providing every human with our emergency aerial medications services to their door steps.

Our **Vision**- The Sky is not the limit. It's just the beginning.

## *Past Performance:*



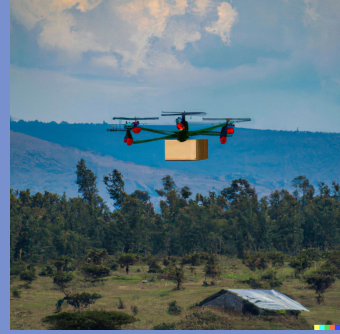
Ahmed Yamien - Founder of SellaHouses, an innovative online real estate solution.

Pooja Sethi - Experienced banking professional in Wealth Management & Regulatory Reporting.

M. Shahrukh Khan - Worked as a Technical Project Manager & a Cyber Security professional in the Tech Industry.

Vikas Sanil - Has successfully ran cloth kiosk chain and Gym facility “Cardio Fitness” in GoVenture city. An experienced IT professional in software development and product management.

## *In Residence Expertise:*



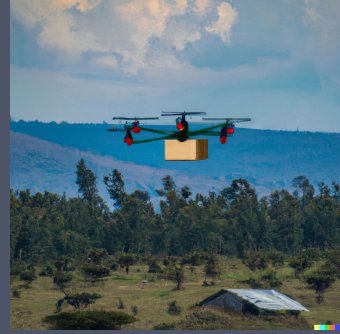
Ahmed - Chief Executive and Technical Officer. Bachelors in Information Technology and Management. **Prior Drone experience.** **Entrepreneur.** **Full Stack development and data warehousing.**

Pooja - Chief Operations Officer. Master of Commerce, Masters in Information Technology and Management with specialization in IT Management and Entrepreneurship. **Product Management and Android development.**

Shahrukh - Chief Financial and Marketing Officer. Master in Information Technology and Management with specialization in IT Management and Entrepreneurship. **Project Management and Cyber Security expert.**

Vikas Sanil - Director of Product Management. Master in Information Technology and Management with specialization in IT Management and Entrepreneurship. **Project management and Android development.**

## *Other Associated Staff:*



- Volunteers from Kenya Drone Club.
- Team of mobile app developers to keep app up-to-date and bug free.

## *Product Idea Overview:*

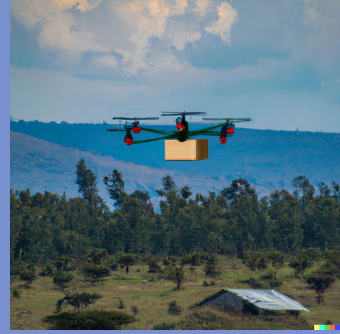
Medical service via aerial systems to save lives.

Snake-Bites- Biggest Health Concerns in Sub-Saharan Africa.

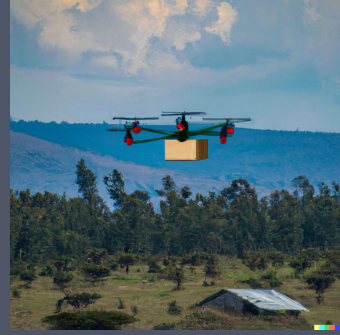
A Survey by NIH depicts- Overall frequency of Snake Bite in Kenya was 13.8 per 100,000 population per year (range 1.9-6.7.9).

Medical Treatment is rare, weak Health Systems.

Drones- The emerging and trending technology.



# *Technical Details-Entire Lifecycle:*



## Introduction phase:

Product Development: **Anti venom delivery system through drone**. Mobile application/text based **purchasing solution**. Tie Ups with local anti-venom manufacturer **Bio-Ken**.

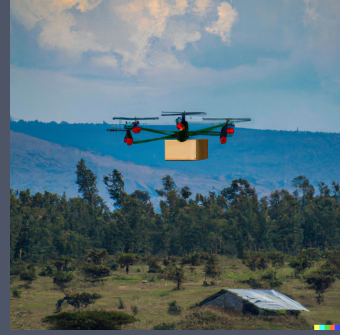
Product Marketing: **Fliers, Newspaper and Radio Ads**. Sponsor local NGO events.

## Growth phase:

Product Collaborations: **Local hospitals and clinics**. Tour Operators. Manufacturing, **Construction and Shipping Industries**.

Product Expansion: **Roll out service in other locations of Kenya**.

# *Technical Details-Entire Lifecycle:*



## Maturity phase:

Product Operation: **Well established network within Kenya**. Country wide acceptance of the system. **Competitors entering the market**. Local governments introducing regulation to the business model.

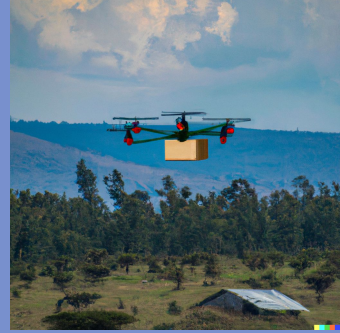
## Renewal phase:

New Product Lines: **Emergency medicine supply chain system for rural population**. **Geological survey system**. Surveillance ability during natural calamity. Expand the existing business model in other Sub-Saharan Countries.



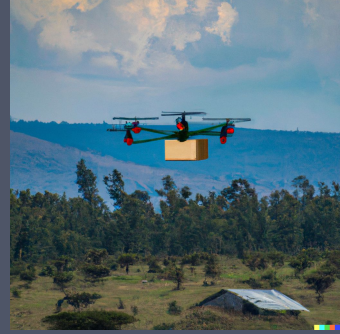
## *Overall Market:*

- Nairobi (4,394,073)
- Mombasa (1,208,333)
- Nakuru (570,674)
- Ruiru (490,120)
- Eldoret (475,716)
- Kisumu (397,957)
- Kikuyu (323,881)
- Thika (251,407)
- Naivasha (181,966)
- Karuri (194,342)

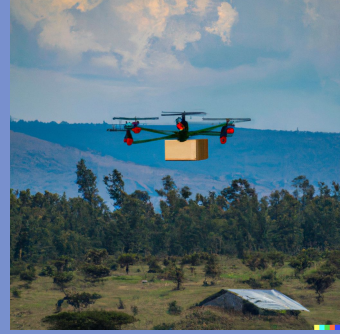


## *Target Market:*

- Target Market - Nairobi, country's capital & largest city.
- Easier to get funding from the most developed city in the country.
- Total Rural Population in Kenya: 37,902,724
- 42 out of 47 counties are predominantly rural.



# *Strength, Weakness, Opportunity, and Threat (SWOT) Analysis:*



**Strength** - Experience in Retail sector, Experience in Drone system, Experience in Market analysis. Experience in Software development. Experience in Product and Project management.

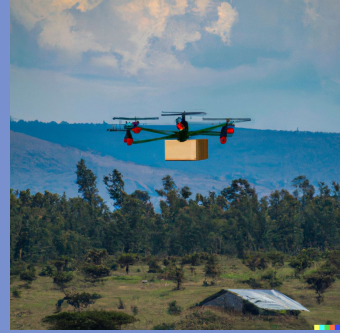
**Weakness** - No native person. No experience in the medical field. Product cost depends on the anti-venom supplier. Drone system dependent on local power supply capacity. Drone maintenance needs external expertise.

**Opportunities** - Less competition. Neglected market. Local manufacturer of Anti-venom present. UN and Kenyan government recognize snake bite as NTD. International and National organizations willing to invest in the healthcare infrastructure of Kenya/Africa region. Subsidies available for renewable energy supply farming.

**Threat** - Local Government regulations on Drone. Product adoption by customer. Suppliers can become competition easily.

# *Strength, Weakness, Opportunity, and Threat (SWOT) Analysis: Mediation Strategy*

- Partner with the local anti-venom manufacturer.
- Set-up Solar power farming on top of warehouses utilizing local and international funding available.
- Become one of the distributors to drone company DJI.
- Sign collaborative agreements with the local governments.



# *Cost to Develop Product (*

## 1. Drone Cost

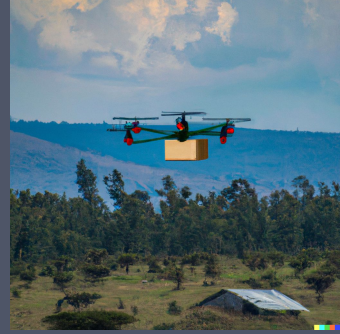
- Medical delivery drones: \$5,000 to \$20,000 per unit
- Factors: Payload capacity, range, and features

## 2. Mobile App Development

- Basic app: \$5,000 to \$15,000
- Complex app: \$20,000 to \$60,000
- Factors: Complexity, features, platforms (Android, iOS, or both), developer type

## 3. Other Expenses

- Licensing & insurance: A few thousand dollars annually
- Drone maintenance: Ongoing costs

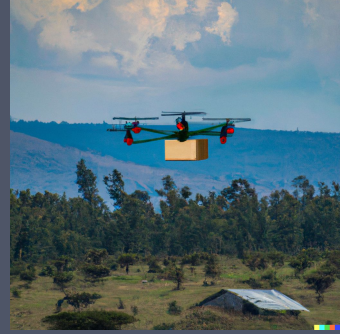


## *Final Production Cost*

According to the demographics and the Kenyan market we are targeting

- 50 drones can roughly range from \$250,000 to \$1,000,000
- Mid-range app might cost about \$40,000
- Other expenses will add another \$10,000

Total cost to develop product will be: \$1,050,000



# *Cost to Deliver Product*

## Medical Supply Expense

1. Procurement costs
  - Anti-venom & medicine costs (6\$ a shot)

## Storage Expense

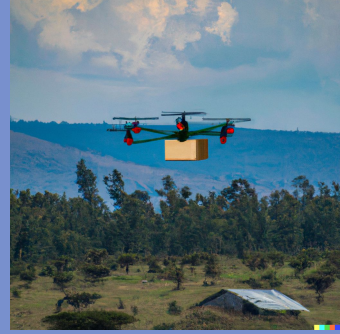
1. Warehouse rental
  - Cost per sqm/annually: \$5 to \$10
  - Size, location, and infrastructure (10,000 sq ft)

## Employee Expense (50 employee)

1. Staff salaries
  - Warehouse staff
  - Drone operators
  - Management & administration
  - Delivery support & customer service

## Electric Bill

1. Warehouse electricity usage
  - Lighting
  - Security systems
  - Office equipment
2. Drone charging
  - Regular charging of drone batteries



## *Final Deliver Cost*

Cost to Deliver each product bases on all the cost associated and ingredients.

Cost of Antivenom: \$600,000 ( $\$6/\text{shot} * 100,000$ )

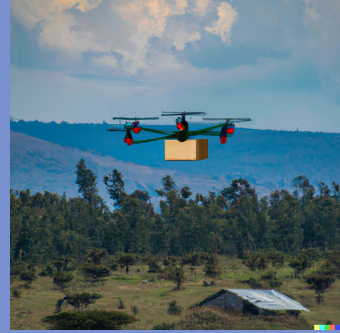
Warehouse rental: \$50,000/ annually ( $\$5/\text{sqft} * 10,000/\text{sqft}$ )

Employee: salary will be about \$180,000/ annually (50 employees initially) Avg \$3600/ per person annual salary.

Electricity bill: \$200,000/ annually

Delivery cost Per unit: \$10.31 ( $1,030,000/100,000$  )

Cost we charge: \$30/ delivery (which leaves us about \$20 in pocket)





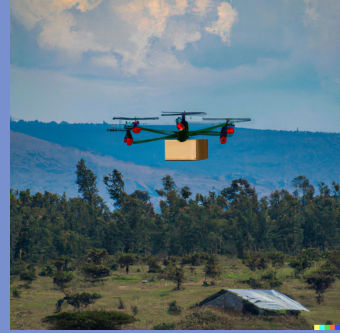
## *Cost to Build On to Product:*

- A portable package hanger with a release mechanism. \$40/unit retail price. Buying 75 units for 50 drone will cost us \$3000.
- Medicine box 5.16" height x6.85" width x4.45" depth inch with combination lock. \$18.99 retail price. A customized box 3.16" height x5.85" width x3.45" depth for our needs may cost \$10/unit as we would have significant reduction in size of the box. Targeted annual anti-venom delivery is 100,000, hence assuming 2% damage in box. We will be buying 102,000 boxes at \$1,020,000.



# *Detailed Marketing Plan and Associated Costs:*

1. Dispensaries and Clinics
  - In-clinic posters & flyers: \$500 - \$2,000
  - Digital display ads: \$1,000 - \$3,000
2. Local Newspapers
  - Print ad placements: \$1,000 - \$5,000
  - Digital ad placements: \$1,000 - \$4,000
3. Local Radio
  - Radio ad spots: \$500 - \$3,000
  - Sponsored radio segments: \$1,000 - \$5,000
4. Social Media & Online Advertising
  - Facebook, Instagram, Google Ads: \$1,000 - \$10,000 (monthly)
  - Influencer collaborations: \$500 - \$5,000 per influencer



## *Funding Avenues: Philanthropists*

- Over the past five years, Kenya has emerged as a hub of innovation for new approaches to poverty reduction and general development.
- Dr. Wangari Maathai - founder of the International Green Belt Movement & the first African woman to receive the Nobel Peace Prize for her pioneering work at the nexus of women's rights and the environment.
- Chris Mathias - a Global Philanthropists Circle member who co-founded Digital Links, a computer recycling organization headquartered in London and piloted in Kenya. Launched in 2002, Digital Links now delivers refurbished computers to schools, clinics, and non-governmental organizations throughout Africa.



## *Funding Avenues: Philanthropists*

- Manu Chandaria - supports a constellation of health centers, educational institutions, and foundations throughout East Africa.
- Over the years, Dr. Chandaria's philanthropic work and outspoken advocacy for corporate social responsibility have made him one of the region's most respected civil-society leaders.
- He has served on numerous government commissions to reduce poverty, promote the economy, and reform government.



# *Funding Avenues: Venture Capitalists*

- Kenyan startups raised nearly one billion dollars in the first half of 2022, surpassing what the country secured last year.
- Kenya has showed the greatest growth in funding gained recently as compared to Nigeria, Egypt and South Africa.
- Kenya's growth in VC funding was pioneered by an increase in the number of deals and mega-rounds — which are deals that are equal to or exceed \$100 million.
- Two notable mega-rounds that happened by the close of June in Kenya are Sun King's \$260 million series D funding and Wasoko's \$125 million series B funding.





## *Reference:*

<https://www.synergos.org/news-and-insights/2007/philanthropy-kenya>

[Snake bites in Kenya: a preliminary survey of four areas - PubMed \(nih.gov\)](#)

[Snakebite envenoming \(who.int\)](#)



# *Question & Answer session*