

Moringa Business Plan



Moringa Village in Batiaghata, Khulna

Prepared for



Prepared By



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Acknowledgement

This publication was made possible with a financial contribution of the Netherlands Government. The Author would like to express their sincere gratitude to Blue Gold Programme and the Governments of the Netherlands for their support in preparing this business Plan. I would like to express my earnest gratefulness to Mr. Karel T'Jonck, a Component Leader of the Blue Gold Programme in Bangladesh for providing valuable information and assist in different aspects of this work. Mostly we thank for his inspiration in working in Moringa sector for the people of Bangladesh. We thank Boudewijn Sterk, Innovation Fund Manager in Blue Gold Bangladesh was working at the time we started our project and Judith de Bruijne, Innovation Fund Manager for their cordial assistance. We also extend thanks other members of the Blue Gold family: Tanvir Islam, Shusanto Roy for all support providing local level information and visit assistance in Blue Gold Programme areas.

We are grateful to Niels van den Berge and Sampa Bala, worked as a consultant for Moringa Pvt. Limited showing different directions and insights in developing an organized business plan.

Disclaimer

These are the views and expressions of the authors of this report and do not necessarily represent the view of the Netherlands Embassy in Dhaka, the Republic Government of Bangladesh or Blue Gold Program consultants.

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EXECUTIVE SUMMARY

PROJECT-SUMMARY

- a. **Name of the Project** : **MORINGA PRIVATE LIMITED**
- b. **Location of the Project** : Office: Level 5, Plot 764/A, Road 11, Avenue 6, Pallabi, Dhaka - 1216
Factory: Shoilakupa, Jhenaidah, Gaibandha
- c. **The project** : Private Limited Company registered into the Joint Stock Company as a not-for-profit company. Profit maximization for the shareholders is not the primary goal, rather development of the community through bringing wellbeing is the main concern by the Board of Trustee instead of the Board of Directors.

Manufacturing and marketing nutritional food supplement products from Moringa and ethnic plants along with massive plantation in the rural area and develop skills to the community people on product, plantation and biotech nutritional supplements so that the country people can get the optimum benefit from the product, plantation and program.

- d. **Ownership Pattern** : Private Limited Company
- e. **Capital Structure** : Authorized Capital: Tk 10,000,000/-
- f. **Products** :
- A. Natural Food Supplement (Nutritional and others)
- i. Moringa Capsule: immune booster for all age group
- ii. Moringa Powder: for children and infants as growth enhancer and immune booster
- iii. Sanjiboni Tea: immune booster
- iv. Wonder Booster: milk enhancer for new moms
- v. Sanjibon diet: food supplement for diabetic patients
- B. Plant Growth Enhancer (liquid form)
- g. **Type of the Project** : Food Supplement project
- h. **Source of Raw Material** : Local
- i. **Production Capacity** : At 100% capacity utilization in 1 shift for 350 working days a year the project will produce 300,000 packs of Moringa Capsule having 60capsules of 500mg in each pack 500 metric tons of Natural Moringa Powder.
- j. **Cost of the Project** : The total cost of the project is Tk. 5,000,000 including net working capital of Tk1,602,500 a summary break-up of the total cost of the project is shown below:

1 CHAPTER ONE: MANAGEMENT ASPECTS

1.1 Legal Status of the Organization

The project is a private limited company registered with the Registrar of Joint Stock Companies. The title of the project is “*MoringaPvt. Limited*”

1.2 Corporate Structure

The corporate structure of the organization is as follows:

| Srl | Name of the sponsors | Permanent address | Status |
|-----|---------------------------|--|----------|
| 1. | ZAKIYAAKHTER | Vill- Batkamara, P.O.+P.S.- Kumarkhali, Dist.-Kushtia. | CEO |
| 2. | NARGIS KHAN LOHANI | :KahariParha, P.O.-Jamalpur, P.S. + District - Jamalpur | Chairman |
| 3. | MOHSEN ARAJHUMUR | : Vill-Jirat, P.O. - Rupdia, P.S. - Kotowali, Dis | Director |
| 4. | ROKSHANAANE | Vill- Puraton Bandura, P.O.- Hashnabad, P.S.- Nowabgonj, Dist- Dhaka | Director |
| 5. | SHAMMYSARWAR | House-117 (1 st fl.) Road-6, Block-B, Bashundhara R/A, Dhaka-1229 | Director |
| 6. | JARINAKHATUN | Jhinaidah | Director |

1.2.1 Management:

The overall management and supervision of the company will be vested in the Board of Trustee rather than Board of Directors. The CEO will be responsible to the Board of Trustee.

Locally recruited managerial and technical personnel will assist her in the overall management and operation of the project.

1.2.2 Management:

Recently the company has changed its Board of Directors which will work actively as the Executive Committee for the operation. A group of experienced and committed executives will work for the development and enhancement of Moringa Private Limited in a profit sharing basis. If Board will experience a good feedback from this Executive Committee, the company will take decision about bringing these new members in Board of Trustees.

New Committee member is here

- a. Mohsena Jhumur - Chairperson
- b. Zakiya Akhter - CEO & MD
- c. Mofique Khan - Director Marketing
- d. ShamimSarwar - Director Policy and Planning
- e. Mohammad Sami Akhtar - Director Business Development

2 CHAPTER TWO: MARKET POTENTIALITY

2.1 Introduction

Our aims to offer and define the main directions, on which Moringa Pvt. Limited should focus on the offering, implementation and integration of the products for the target customers/consumers. Set up a marketing strategy for us is a preliminary process to enter into the market with our full potential. It helps us to develop a way to maintain a work flow. The main goal is to occupy a specific market niche; we will try to implement its products in several main directions:

- Develop, implement and monitor a strong Marketing strategy, including important elements like market research, assessment of strong and weak sides as well as opportunities and threats which are present and also the future condition.
- Creating a Huge advantage in the Industrial sectors
- Create and maintain direct contacts with our clients
- Preserving strong online presence, supported by the establishment of a fully functional website.
- For direct selling we should built a strong chain.

Our strategy advocates on the emphasis on the advantages that the products themselves possess, as well as on the specific market conditions, which have to be referred to with the necessary professionalism and approach. Our marketing strategy is based on market research, competitive environment analyses, current and predicted levels of market supply and demand, client preferences, directions of market development and others, further specified market elements, Number of corporate we will reach and also the retail condition with this kinds of products. For considering all those facts we are going to make a strong marketing strategy.

2.2 Moringa in Bangladesh Market

Moringa has been found in different product form though only few are in mass commercial sales status.

- i. Moringa tablet by Modern Herbal (in sales for last 5/6 years)
- ii. Moringa Tea by Pallibadhu (at idea level)
- iii. Moringa Tea by unknown company (at production stage)
- iv. Sonapata by natural and organic sales centre (as traditional healing material)
- v. Moringa Capsule by Moringa Private Limited (at small scale production)
- vi. Moringa Tea by Moringa Private Limited (at pilot production)
- vii. Cattle Feed by BLRI (at product stage waiting for commercial production)
- viii. Growth Enhancer for Poultry by Moringa Private Limited (at product stage waiting for commercial production)

- ix. Growth Enhancer for Plants by Moringa Private Limited (at product stage waiting for commercial production)
- x. Moringa powder for kids as immune booster by Moringa Private Limited (at pilot production)

2.3 Products of the company

The proposed project will initially produce -

- Nutritional Supplement in capsule form
- Food supplement for infants and kids in powder form
- Natural Plant Growth Enhancer in liquid form
- Health Tonic in liquid
- Cattle Feed as pallet
- Poultry feed as pallet

2.4 Competitive Advantages

- The number one of selling advantage of our Moringa powder and our food supplement capsule is its uniqueness.
- The very first of its kind ever introduced for business in Bangladesh market.
- Number two selling point is it is already proven of its well-known multi-nutrients that no other fruits or vegetables can ever have.
- Its rare powers of medicinal properties and enormous vitamins will not be compared to any nutritious fruit or vegetable that one needs to combine all their nutrients, to equal wonders and energy giving properties. It is like growing vitamins at your doorstep.
- The price of our products is much cheaper than other vitamins and mineral/dietary supplemental products in Bangladesh.
- It is already proved by Department of Nutrition (Dhaka University) that Moringa contains no harmful elements for body.

2.5 SWOT Analysis

2.5.1 Strengths:

- The CEO of the company has business experience and in-depth knowledge in both business and technical aspect.
- Other Members are also having business expertise and technical expertise. Among them two are Pharmacists.
- The project enjoys a good communication network, as it is beside to Dhaka-Jhenaidah-Kushtia highway. That highway is also the only one highway that links the southern and northern part of the country.
- A strong team of senior pharmacists, experienced and renowned in the field of product formulation and marketing, are inactively involved in this company.
- Board Members are keen to do welfare for the society and committed to contribute the best of themselves for goodness of the community people.
- The mandate of the company is aligning with the vision 2021 by the Government of Bangladesh and the Millennium Development Goals by the World Bank.
- Very new but unique product that has a great demand in the market

- These products have been developed after a thorough research done by a Pharmacist who has his education from an A-grade public university in the country.
- These products are in high demand in developed countries
- The quality of the product is world standard
- Customers are becoming brand loyal because of the quality and they are satisfied with the positive feedback from Moringa products.
- The prices are very much within the buying range of the population at the Bottom of the Pyramid.
- The people from the BOP are getting involved in the distribution system so that they feel motivated to earn some extra money as well as getting the benefit from the product itself.
- The availability of the raw material locally.
- An available and cheap as well as strong tool to combat malnutrition.
- A huge plantation will support the National Adaptation Program of Action (NAPA), prepared by the Ministry of Environment and Forest (MOEF), Government of the People's Republic of Bangladesh as a response to the decision of the Seventh Session of Conference of the parties (COP7) of the United Nations Framework Convention of the Climate Change (UNFCCC) in 2005.
- Products in the pipe-line and future products are from well-known herbs with abandon acceptance in the market.
- The organic Moringa Growth Enhancer, waiting for the sales permission from the Ministry of Agriculture, has the great potential to be an alternative to the harmful and hazardous chemical growth enhancer available in the market.
- The Moringa Growth Enhancer is the only one locally produced among all the organic related products are out there in the market.
- The company has its own R&D system and expertise to ensure the result from all its products before launching entering into the market. Therefore the company is confident about its sales and future growth.

2.5.2 Weaknesses:

- Though the raw material is available the supply is still unsecure to meet a large quantity demand because of limited production capacity.
- The volume and the quality should be significantly high to attain economy of scale since a big amount of investment in terms of money and time has been expended for Research and Development.
- Price is too low to be believed by the consumers as the alternative products are established from renowned pharmaceuticals and with high price.
- A very new company with very limited resources
- The Government of Bangladesh has no policy/act/strategy to produce and marketing food supplement in the country.
- There is no dedicated authorizing agency from the Government of Bangladesh who can give license or No Objection Certificate for herbal/organic/natural food supplements
- The project is depended on all agricultural raw materials which can cause a low supply of raw material due to a poor planning fitting with the cropping and harvesting season.

2.5.3 Opportunities:

- The market potential of these products, as has been assessed, is quite substantial. The consumption and dependability on the herbal products, especially on food

supplements are rising at a much higher rate in the country and the local market has got growth potential in view of increasing awareness.

- The huge growth potential of the agro-processing sector will create backward as well as forward linkage.
- Community people in different regions in the country are familiar with the herb without knowing its nutritional value. If the product is promoted rightly there will create a large demand from every corner of the country.
- The product can be the best arm to combat the malnutrition of the country.
- The proper advocacy to the Government of Bangladesh and to the development agencies will assist the nutrition programs with cheap and available product.
- Products like organic and healthy water purifier will have the opportunity
- The future products like organic and healthy water purifiers as well as some very well established natural products with high medicinal values have high potentiality in local and international market.
- The Moringa Growth Enhancer will be a locally produced unique product and has the opportunity to be a leader in the market encouraging the farmers and producers in agriculture sector to use the organic growth enhancers like this.
- All the existing and future products have high environmental value and they can contribute significantly in adaptation programs of climate change impacts in the country.
- People of the country are now health conscious. Wellbeing is in everyone's mind. Therefore good quality herbal products attract their attention very easily.
- The people of the country are being aware of the harmful and hazardous impacts of the chemical and synthetic food supplements, products. People are exploring for the herbal products for their living.

2.5.4 Threats:

- Organic Food Supplement is a new concept in the Bangladesh. People know about the vitamins and minerals from pharmaceutical companies, however, very few people are aware about the reason of having those vitamins and minerals. This takes a long period of time to make people aware and believe on this organic food supplements.
- In the country, many immoral products are available in the country and very few herbal products could proof the authenticity and could make a positive impact in people's mind.
- Most of the herbal companies are following the unethical practices in their business. It's really hard to create trustworthiness among the target consumers.
- The entry of new entrepreneurs is also apprehended since there is a huge and fast growing demand for these products in the country.
- Low quality products may enter the market through unscrupulous traders and may destroy peoples' faith.

2.6 Sales

- KII under this business plan assisted the company to explore and find the confirm market for Moringa powder. The list of the firms and institutions has been done with KII is attached in Annexure. Also the report there.
- **The company has demand at present about 500 metric tons of moringa powder each year.**
- **Both local and international sales are included in this estimation.**

- International moringa users are exploring Bangladesh as the supplier of Moringa as it is ethnic and available here. Also the nutritional value is more rich than that of the hybrid production in other countries.
- Bangladesh government, World Bank, WFP has knowledge about Moringa and its nutritional value. If any company starts supplying as per their requirement based on dose against mal nutrition and stunted growth, all health and nutrition interventions will start applying in their programmes. It will be big and bulk sales for the company which is not possible to meet only one single company.
- It has targeted 9,000 metric tons of moringa leaf powder by next three years which only about sales of 7,000 bottles of capsules each day.
- Some institutions like ICDDR'Bis in the process to start their intervention to combat malnutrition through Moringa with the target of having moringa supply and technical collaboration with the company.
- Through close supervision in our target market, cooperation and proper contact on the targeted market groups by each member of the company, voluntary labor and support and the rich supply of raw materials will definitely make our goals come true.
- Cattle farmers, specially those who are producing organic, are ready to take moringa feed, they are only waiting for the production.
- As the cattle farmers, organic and natural poultry farmers, around Dhaka city, are waiting for the final production to use moringa poultry feed to use as growth hormone and immune booster.
- Organic vegetable and fruits producers are interested and confirmed their buying of Plant Growth Enhancer around Dhaka city, in Kushtia, Natore, Bogra and some other districts in North Bengal.
- We will not go for vast network of Distributors. The selling proposition will be different in different category.
- We will go for selling in different Pharmacy and Homeopathic clinic after having the drug license.

2.7 Marketing and Communication

- Moringa products will be lifestyle products. Therefore, a good marketing and branding arrangement will be done.
- Video contents, documentaries will be created and broadcasted.
- Articles will be written case study basis and will be published in print media, journals and online platform.
- Seminars and demonstrations in different institutions working in health and nutrition sector, poultry feeding store, communities; Association.
- Online promotion through social media and e-commerce site is ongoing.
- Agrobased distribution channels are in the network and agree to work with Moringa Pvt. Company.
- Agro based firms will be our client.
- Door to Door marketing and selling.
- Export Seeds, Leaf powder, Flower to Foreign Countries
- Personal relationship with buying house and garments should take privilege.
- 3rd party communication will happen where intermediary works in between us and the company that we contacted.
- One to one communication between company representatives and different Homeopathic clinic and Pharmacy.

2.8 Promotion and Distribution

2.8.1 Promotional Strategy:

We will go for different promotional activities during the year. Those are given below-

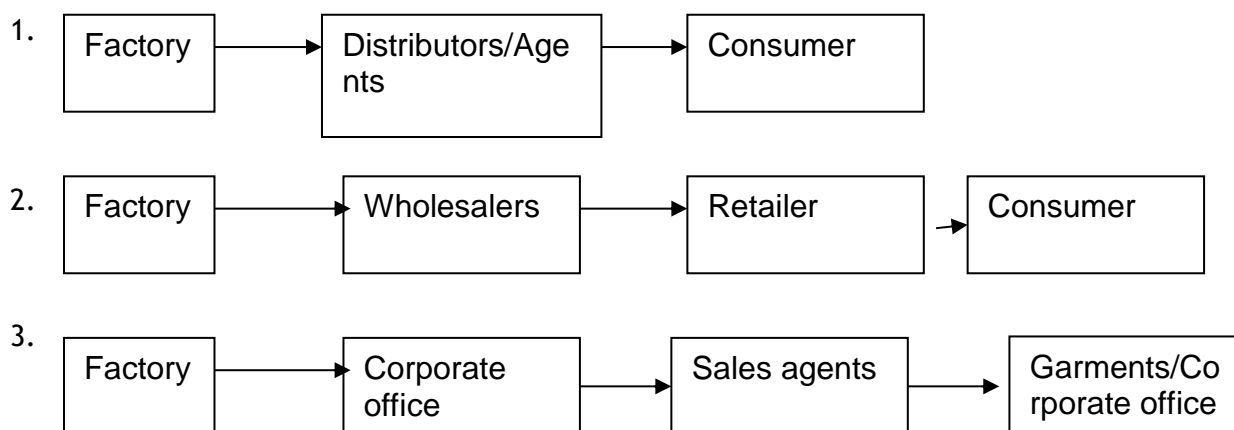
- Video Documentaries, articles, case studies will be developed
- Email marketing can be a good source of promotion
- We will go for social marketing by posting some links and also creating face book advertisement in a regular basis.
- Posting our case studies and articles in different newspapers, magazines can be a good source of promotion.
- Promotional material for super shop sells.
- Publish articles or get listed in news stories
- Arranging national and international seminars on the benefits of Moringa and publish online press releases
- Awareness related programs in the rural area to create awareness regarding plantation of moringa tree on their unused land.
- Advertising in different online website like- e bay, amazon.com, Akhoni.com, Bikroi.com etc to Promote/sell our products.
- Direct market visit, crash program.
- Participate in events, fairs and exhibitions.

2.8.2 Distribution

A proper distribution channel should be established and it should be designed according to the intensity of demand for fertilizer and supply of raw materials.

LalTeer Seed Limited, the largest national seed company and agrobased product distribution channel is interested in distributing Moringa Plant Growth Enhancer through their channel being an innovative and natural product for agriculture.

However, the following distribution channels may be introduced initially:



2.9 Pricing Policy and Pack Size

The product-mix of the project and the selling prices would be as follows -

| Sl # | Product-mix | Quantity | Price (Tk.) |
|------|-------------|----------|-------------|
|------|-------------|----------|-------------|

| | | | |
|-----|-----------------------------|-----------------------|---------------|
| 01. | Moringa Capsule | 60 Capsule Per bottle | 300 |
| 02. | 7 Herb Tonic | 100 ml bottle | 100 |
| 03. | M-Moro | 60 Capsule Per bottle | 700 |
| 04. | Wonder Booster | 60 Capsule Per bottle | 700 |
| 05. | Moringa Power | 1 kg | 2500 |
| 06. | Cattle feed | 1 kg | Yet to decide |
| 07. | Poultry feed | 1 kg | Yet to decide |
| 08. | Moringa powder in sachet | 8 grams | 30 |

The prices of the products will however be determined by the forces of demand and supply ultimately.

The pricing of Moringa Capsule along with quality would be the key factor for the success of the project.

For profitability analysis we didn't put the small pack of moringa powder yet as the price can be changed depend on the quantity supplied.

2.10 Conclusion

The market of herbal products/ Food Supplement is very big. A large part of the demand for it is yet to be met. So, from the marketing point of view the scope for setting up such an industry in the country is very bright.

3 CHAPTER THREE: TECHNICAL ASPECT

3.1 The Project

The Project is setting up with Different Machine and Equipment as bellows-

- Crushing Machine/ Pulpilizer
- Sealing/ heating machine
- Capsule Filling Machine
- Sachet Machine
- Sticker labeling machine etc.

By using the above machinery we will be able to produce the needed production and also manpower to operate the machine. No need high skilled worker to matching with the production need.

3.2 Raw Material

Since Blue Gold Innovation Fund is interested in value addition in the livelihoods in its polder locations through Moringa plantation, a visit has been done by the Moringa Private Limited to see the soil condition and geographical condition of those areas.

The visit feedback was interesting. Khulna district is full of Moringa plants and widely popular, people known about the taste and benefits of the vegetable. It was interesting to visit the village JharhBhanga, Union Gangarampur, UpazillaBatiaghata in Khulna district which is selected for cultivating Moringa plants and knows as “Sojna Village”. 34 family lives there with mix income people and every household has moringa trees including new plantations in roadsides and banks on the ponds and water bodies. In Satkhira there are Moringa trees in polder areas and people are known a little about its benefits.



Photo: Barren ChingriGher in Satkhira where Moringa can be cultivated to make the life green and can add value to their an extra earnings and better nutrition

However, in Patuakhali this plant is totally new and they never heard about it. However, it is found that Moringa can be grown as Moringa tree has been cultivated in Rangabali, an island in Patuakhali district.

However, production of Moringa found possible and feasible all three districts and blue gold polder areas.

During the visit the Moringa Team found a representative of Water Management Group (WMG) in Satkhira and it was found that WMG can be used in total moringa production cycle. The company developed a theory of Change and WMG can play a vital role in this Theory of Change.

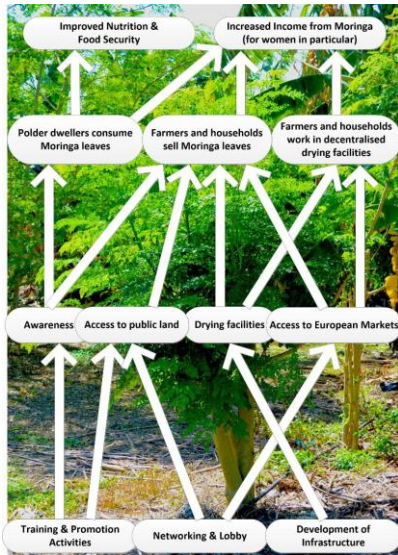


Figure: High level Theory of Change

In level 2, of the Theory of Change for cultivation and drying units, WMG will work as the supply partner for the company.

Here is the moringa production management format in Blue Gold Polders ----

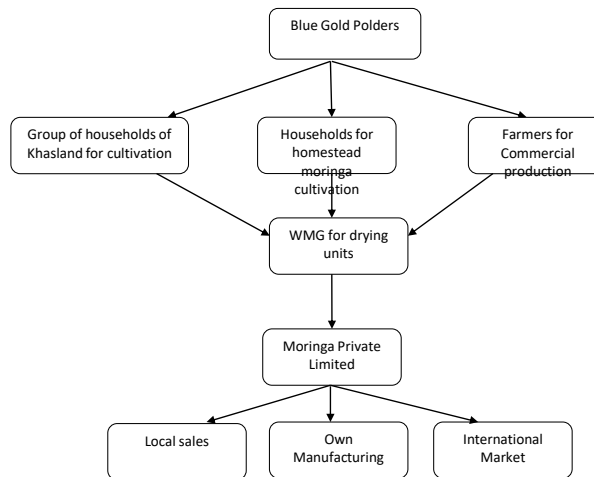


Figure: Moringa production management format for BG polders

4 Fund involvement for ensuring supply chain

Since Blue Gold is interested in improving the livelihood in polders using moringa as a value added plant Moringa Private Limited has calculated the fund required to establish a 400sqf leaf drying zone is BDT 180,000. With a target of 480 kg leaf powder per month

variable cost will be BDT 142.71. With a selling price of BDT 179, with 25% profit margin, the breakeven point will be 10.51 months.

Here is the estimated cost of establishing drying units, production and sales from their.

Establishment cost for drying units

| Particulars | Rate in BDT | Unit | Total in BDT | 15 units |
|---|-------------|------|----------------|------------------|
| Washing area | 30,000 | 1 | 30,000 | |
| Drying area (400 sqf) | 100,000 | 1 | 100,000 | |
| Equipments, instruments and electricity | 30,000 | 1 | 30,000 | |
| Misc | 20,000 | | 20,000 | |
| Total | | | 180,000 | 2,700,000 |

| Sales from One Unit | Total Unit in KG | Rate in BDT | Total in BDT | 15 units |
|---|------------------|-------------|--------------|------------------|
| Production target per 2day drying duration | 40 | | | |
| Production in KG per month | 480 | | | |
| Green Leaf for one Drying unit in 1 day | 800 | 5 | 4,000 | |
| Sales days for farmers per month | 12 | 4,000 | 48,000 | |
| Cost for sales | | | 20,500 | |
| Labor in sales days (2 labors) transport for carrying green leafs | 12,000 | | | |
| | 6,000 | | | |
| Overhead | 2,500 | | | |
| Total variable cost | | | 68,500 | 1,027,500 |
| Cost per KG = | | 142.71 | | |
| Profit margin at the rate of 25% = | | 35.68 | | |
| Total price = | | 178.39 | | |
| Total sales | | | 85,625 | |
| Earning | | | 17,125 | |
| Breakeven point | | | | 10.51 |

| | |
|----------------------------------|------------------|
| Total cost for production | 3,727,500 |
|----------------------------------|------------------|

4.1 Production Plan for Moringa Private Limited

From 1st year of operation, the project's production at the assumed capacities of near about 36,00,000 pcs of Moringa cap Bottle and will increase on 20%, 30%, 35% and 40% by the next 4 years.

The health Tonic production will be 50,000 liter in the First Year and will increase the same percentage above mentioned.

Natural growth Enhancer production will be 100,000 liter in the First Year and will increase the same percentage above mentioned.

4.2 Land and Location

The project will be set up on a plot of land measuring 2 acres located at different places in Bangladesh such as Kushtia, Panchagarh, Chittagong, Jhenaidah, Khulna, Satkhira and Patuakhali. Corporate office located at DOHSMirpur, Road 11, Avenue 6, Plot 764/A. The total cost of the project land along with development is Tk. 1,000,000.

The location is ideally suitable for this type of industrial unit and the project will have access to all infrastructure and other facilities at cheaper costs.

4.3 Civil Construction

The cost of building and other civil construction required for the project has been estimated at Tk. 24,560,600.

4.4 Machinery & Equipment

The project will procure imported machinery and equipment which would be supplied by the local agent at a total cost of Tk. 25,605,000/-

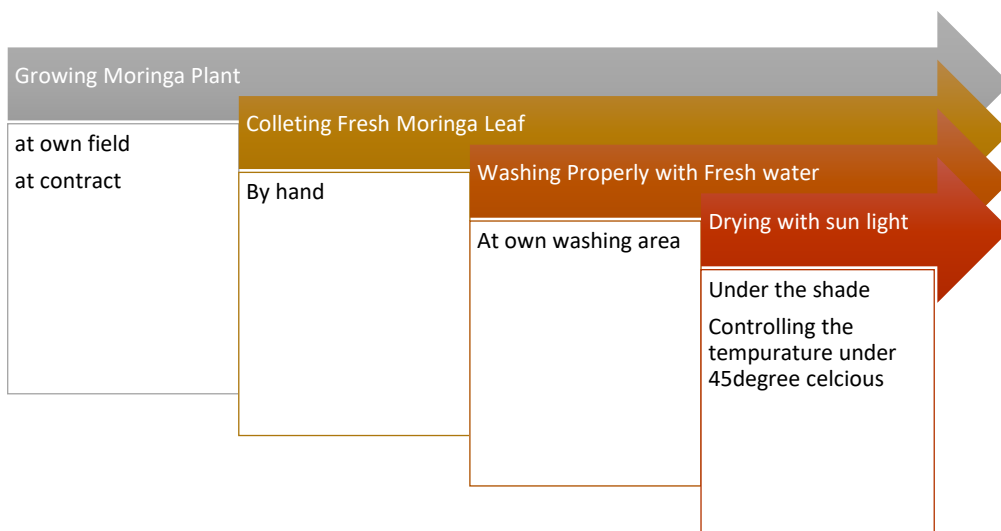
4.4.1 Erection and Installation

The erection and installation of machinery will be completed within twelve (12) months. Local technicians will be employed to work under the supervision of machinery suppliers. The cost of erection and installation including cables, pipe & Washer, Heater and others has been estimated at Tk. 500000 and included in the cost of machinery.

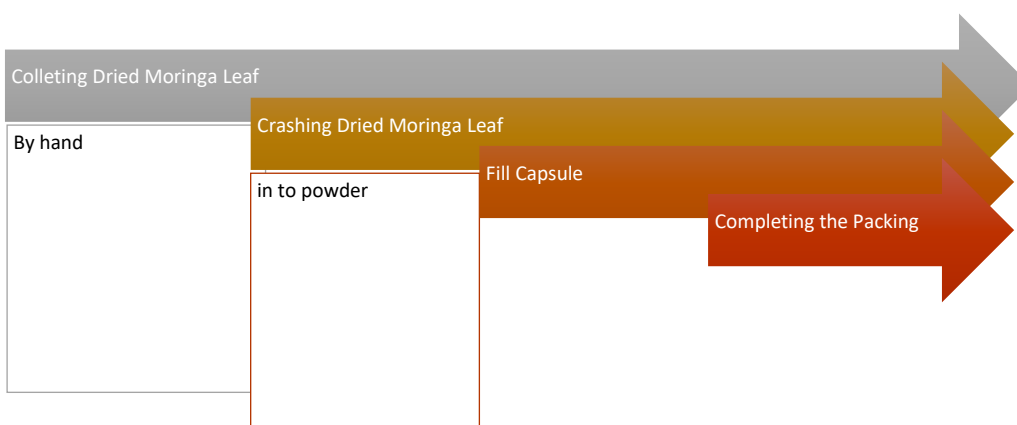
4.5 Technologies and Manufacturing Process

The technology and process involved in this type of industry is not very uncommon in this country and the required technical personnel will be available locally. Besides, machinery supplier will provide technical know-how, detailed project design, engineering services and project management services. With the simplest technology the Moringa Capsule is being produced. The production process, we are maintaining, is as follows ---

Production process Step-1



Production process Step-2



4.6 Office Equipment

A sum of Tk. 570,500/- has been provided for office equipment of the proposed project. The details of furniture and fixture are given in Table 3.7.1.

Table 3.7.1: Office Equipment

| Sl. No. | Items | Quantity | Unit price (Tk.) | Total price (Tk.) |
|---------|---|----------|------------------|-------------------|
| Sl | Office Equipment | | | |
| 1 | Computer with UPS, Printer Complete Set | 1 | 60,000 | 60,000 |
| 2 | A.C. | 1 | 50,000 | 50,000 |
| 3 | I.P.S. | 1 | 40,000 | 40,000 |
| | | | | 150,000 |

4.7 Manpower Requirement

The total manpower requirement of the project has been estimated at 53 for which Tk. 6,240,000/- has been estimated as annual salary and wages which will added to working capital. The details of the manpower requirement are given:

Table 3.8.1: Manpower Requirement

| Position | Number of employees | Salary/month | Salary/ annum/Tk |
|-------------------------------------|---------------------|--------------|------------------|
| A. Corporate Office | | | |
| 1. CEO | 1 | 50,000 | 600,000 |
| 2. Executives, Business Development | 2 | 40,000 | 480,000 |
| 3. Administrative Assistant | 1 | 20,000 | 240,000 |
| 4. Office Support | 1 | 7,500 | 90,000 |
| Sub - Total: | 5 | | 1,410,000 |
| B. Production | | | |
| 1. Technical Advisor | 1 | 40,000 | 480,000 |
| 2. Supervisor | 1 | 25,000 | 300,000 |
| 3. Production Executives | 2 | 30,000 | 360,000 |
| 4. Production Assistant | 2 | 20,000 | 240,000 |
| 5. Attendant/ Office Support | 1 | 7,500 | 90,000 |
| Sub-total: | 7 | | 1,470,000 |
| C. Overhead costs | | | |
| 1. Rents & Bills (Office+Factory) | | 20,000 | 240,000 |
| Total: | 12 | | 3,120,000 |

4.8 Raw Material:

Totally local raw materials. For Moringa Capsule and Plant growth enhancer we are using 100% Moringa raw leaf collected from the land. And for Tonic local materials will be used.

4.9 Packaging Cost

The project requires Bottle, Silica, Seal, Sealing paper, Sticker etc. which will be 1% of the total sales in a year.

4.10 Transportation

An amount of Tk. 2,600,000 has been estimated as fixed investment in transport. The breakdown of transport cost is given below:

Table 3.11.1: Transportation

| Sl No. | Type of Transport | Quantity | Unit Price (Tk.) | Total Price (Tk.) |
|--------------|-------------------|----------|------------------|-------------------|
| 1 | Truck | 1 | 1,800,000 | 1,800,000 |
| 2 | Pick-up | 1 | 800,000 | 750,000 |
| Total | | | | 2,600,000 |

4.11 Implementation Schedule

It is expected that the project will be able to start its commercial operation by the 12th month after its formal approval and completing sequential activities as shown in the following implementation schedule.

Table 3.12.1: Transportation

| Sl . | Activities | Months | | | | | | | | | | | |
|------|------------------------------------|--------|---|-------|---|-------|---|---|---|-------|----|-------|-------|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 1 | Land Acquisition | _____ | | | | | | | | | | | |
| 2 | Site Development & Pond Excavation | | | _____ | | | | | | | | | |
| 3 | Civil Construction | | | | | _____ | | | | | | | |
| 4 | Machinery Installation | | | | | | | | | _____ | | | |
| 5 | Trial Operation | | | | | | | | | | | _____ | |
| 6 | Formal Launching | | | | | | | | | | | | _____ |

4.12 Pollution

The project is environment friendly. There will not be any chemical wastage and will not pose any threat to the environment.

5 CHAPTER FOUR: FINANCIAL ASPECT

5.1 Cost of the Project

The total cost of the project has been estimated at **Tk. 10,000,000** including net working capital of **Tk. 1,000,000**. The detailed estimates of fixed and working capital requirement have been shown at Annexure 3 and 2 respectively. A summary break-up of the total cost of the project has been shown below:

Table 4.1.1: Cost of the Project

| Particulars | Foreign Currency | Local Currency | Total |
|----------------------------------|------------------|---------------------|---------------------|
| Land & Land Development | 0 | ₹ 3,600,000 | ₹ 3,600,000 |
| Building & Civil Construction | 0 | ₹ 250,000 | ₹ 250,000 |
| Machinery & Equipment | 0 | ₹ 3,100,000 | ₹ 3,100,000 |
| Furniture & Fixtures | 0 | ₹ 150,000 | ₹ 150,000 |
| Vehicles | 0 | ₹ 2,600,000 | ₹ 2,600,000 |
| Total Fixed Cost | 0 | ₹ 9,700,000 | ₹ 9,700,000 |
| Working Capital | 0 | ₹ 3,120,000 | ₹ 3,120,000 |
| TOTAL COST OF THE PROJECT | 0 | ₹ 12,820,000 | ₹ 12,820,000 |

Table 4.1.2: Means of Finance

| FINANCING PLAN | Percentage | Amount (Taka) |
|------------------------|-------------|-------------------|
| Sponsor' Equity | 51% | 6,538,200 |
| investment Firm Equity | 49% | 6,281,800 |
| Total | 100% | 12,820,000 |

Table 4.1.3: Financing Plan

| PARTICULARS | EQUITY | | TOTAL COST |
|----------------------------------|---------------------|---------------------|----------------------|
| | Sponsor's | EEF/Investment Firm | |
| Land & Land Development | 1,836,000.00 | 1,764,000.00 | 3,600,000.00 |
| Building & Civil Construction | 127,500.00 | 122,500.00 | 250,000.00 |
| Machinery & Equipment | 1,581,000.00 | 1,519,000.00 | 3,100,000.00 |
| Office Equipment | 76,500.00 | 73,500.00 | 150,000.00 |
| Vehicles | 1,326,000.00 | 1,274,000.00 | 2,600,000.00 |
| Total Fixed Cost | 4,947,000.00 | 4,753,000.00 | 9,700,000.00 |
| Working Capital | 1,591,200.00 | 1,528,800.00 | 3,120,000.00 |
| TOTAL COST OF THE PROJECT | 6,538,200.00 | 6,281,800.00 | 12,820,000.00 |
| PERCENTAGE | 51% | 49% | 100.00% |

Table 4.1.4 Investment return

| Step | Year | Amount |
|--------|------------------------|---------------------|
| Step 1 | 2 nd (2016) | 10% of total amount |
| Step 2 | 3 rd (2017) | 15% of total amount |
| Step 3 | 4 th (2018) | 20% of total amount |
| Step 4 | 5 th (2019) | 25% of total amount |
| Step 5 | 6 th (2020) | 30% of total amount |

5.2 Financial Evaluation

The profitability analysis of the project has been carried out for five projected years of operation to assess the financial viability of the project. The financial projections that have been made include earning forecast, cost of goods sold, administrative and selling expenses, cash-flow statement, and financial ratios.

The consolidated statement showing the financial performance of the project is given below:

Table 4.2.1: Sales projection for 5 years

| Sales Projection for 5 Year | | | | | | | | | |
|-----------------------------|--------------------------------|-------|---------------------|-----------------------|-------------------|-------------------|--------------------|--------------------|--------------------|
| SL | Product Name | Price | Sales/ Month in Qty | Sales/ month in Value | 1st Year | 2nd year | 3rd Year | 4th Year | 5th Year |
| 1 | Moringa Capsule (Multivitamin) | 200 | 10,000 | 2,000,000 | 24,000,000 | 27,600,000 | 31,740,000 | 36,501,000 | 41,976,150 |
| 2 | Health Tonic(100 mg) | 100 | 12,000 | 1,200,000 | 14,400,000 | 16,560,000 | 19,044,000 | 21,900,600 | 25,185,690 |
| 3 | Moringa Capsule small size | 120 | 15,000 | 1,800,000 | 21,600,000 | 24,840,000 | 28,566,000 | 32,850,900 | 37,778,535 |
| 4 | Moringa Growth Enhancer(liter) | 500 | 3,000 | 1,500,000 | 18,000,000 | 20,700,000 | 23,805,000 | 27,375,750 | 31,482,113 |
| | Total | | 40,000 | 6,500,000 | 78,000,000 | 89,700,000 | 103,155,000 | 118,628,250 | 136,422,488 |
| Grand Total | | | | 6,500,000 | 78,000,000 | 89,700,000 | 103,155,000 | 118,628,250 | 136,422,488 |

Table 4.2.2: Financial Evaluation

(Amount in Taka)

| Description | 1st year | 2nd year | 3rd year | 4th year | 5th year |
|---|------------|------------|-------------|-------------|-------------|
| Sales Value | 78,000,000 | 89,700,000 | 103,155,000 | 118,628,250 | 136,422,488 |
| Cost of goods sold (35% of sales) | 27,300,000 | 31,395,000 | 36,104,250 | 41,519,888 | 47,747,871 |
| Gross Profit | 50,700,000 | 58,305,000 | 67,050,750 | 77,108,363 | 88,674,617 |
| General Admin. & Marketing exp. | 1,732,600 | 1,905,860 | 2,096,446 | 2,306,091 | 2,536,700 |
| Promotional expense (5% of sales) | 3,900,000 | 4,485,000 | 5,157,750 | 5,931,413 | 6,821,124 |
| Operating profit | 45,067,400 | 51,914,140 | 59,796,554 | 68,870,859 | 79,316,793 |
| Net profit | 45,067,400 | 51,914,140 | 59,796,554 | 68,870,859 | 79,316,793 |
| Income tax | | 16,900,275 | 19,467,803 | 22,423,708 | 25,826,572 |
| Net Profit after tax | 45,067,400 | 35,013,865 | 40,328,752 | 46,447,152 | 53,490,221 |
| Investment (20% till 5th year and 10% rest of the year) | | 7,002,773 | 8,065,750 | 9,289,430 | 10,698,044 |
| Net profit after investment | 45,067,400 | 44,911,367 | 51,730,804 | 59,581,429 | 68,618,749 |
| Dividend (15% till 5th year & 20% rest of the year) | | 6,736,705 | 7,759,621 | 8,937,214 | 10,292,812 |
| Retained earning | 45,067,400 | 38,174,662 | 43,971,183 | 50,644,215 | 58,325,936 |
| Cumulative Retained earning | 45,067,400 | 83,242,062 | 127,213,245 | 177,857,460 | 236,183,396 |
| Percentage | | | | | |
| Net Profit to Sales | 57.78 | 57.88 | 57.97 | 58.06 | 58.14 |
| Net Profit after Tax | 57.78 | 39.03 | 39.10 | 39.15 | 39.21 |

5.3 Break-even Analysis

The break-even analysis has been carried out on the basis of cost and sales data of 5th year projected operation. The project is expected to be in break-even at 16.154% of the rated capacity or 21.53% of the rated capacity.

5.4 Internal Rate of Return (IRR)

The internal rate of return has been computed following the DCF technique. The capital machinery is to be replaced in the 11th year. The Internal Rate of Return of the project is 27.99%.

5.5 Provision for Dividend

Project has sufficient cash flow to declare dividend declare dividend at the rate of 15%,15%, 15%,15 % and 15% respectively for the 1st,2nd, 3rd, 4th and 5th year of operation.

5.6 Return on Asset:

11167.51% is the return on asset, which means company asset is less then net income. That means Company has highest capability to use lower asset to income much capital.

6 CHAPTER FIVE: SOCIO-ECONOMIC ASPECTS

6.1 Employment Generation

The project after implementation will generate direct employment for 50 persons.

6.2 Social Benefits

This is a socially attractive venture as the project aims at producing quality and Nutritious food supplement which will be very helpful for everyone and decreases the malnutrition from Bangladesh and the growth enhancer contribute to increase the fertility of the land without harming soil structure.

Presently there are two ways to harvest moringa:

1. Traditional way
2. Commercial Way

As tobacco cultivation and harvesting is more profitable in Bangladesh that's why we are comparing the financial and health benefit with Tobacco with Moringa cultivation.

1. Traditional Way of Moringa Harvesting

In traditional ways the farmer no need to have perfect irrigation and also use very less fertilizer but the final production also goes down in traditional system.

| Product | Production / H / Y | Sales Price/Ton | Earning /Y/ H | Expenditure /Y /H | Earning/ Y / H |
|---|-----------------------|--------------------|------------------|----------------------|-------------------|
| Moringa | 104 ton | 7,000 TK | 728,000 | 335,000 | 393,000 |
| Tobacco | 3.2 ton | 120,000 TK | 384,000 | 190,000 | 194,000 |
| Earning of Moringa Harvesting in Comparison with Tobacco in Traditional way which is also almost double than that of Tobacco | | | | | 199,000 |

2. Commercial way of Moringa Harvesting

In commercial ways the farmer need to take extra care of Moringa plant by providing proper irrigation and fertilized but the final production will be 5 times higher than that of traditional system.

| Product | Production / H / Y | Sales Price/Ton | Earning /Y/ H | Expenditure /Y /H | Earning/ Y / H |
|---|-----------------------|--------------------|------------------|----------------------|-------------------|
| Moringa | 650 ton | 7,000 | 3,850,000 | 1,540,000 | 2,310,000 |
| Tobacco | 3.2 ton | 120,000 | 384,000 | 190,000 | 194,000 |
| Earning of Moringa Harvesting in Comparison with Tobacco in | | | | | 2,116,000 |

| | |
|---|--|
| commercial way which is also almost double than that of Tobacco | |
|---|--|

Health Benefit

- ✚ Harvesting the Tobacco directly or indirectly effect the farmer where as with moringa it won't affect the health of the farmer.
- ✚ Tobacco directly affecting the health of usages where as Moringa giving the tremendous benefit to the users.

Use of Moringa Leaf Powder and Juice in different sector.

1. Trial on Poultry

As all of us well aware about the demand of poultry in Bangladesh (the main source of protein) that's why there are many poultry farming in Bangladesh meeting the local demand of the consumer but very less are caring about the usage of synthetic antibiotic and growth hormone

During our study we found that the farmer using vitamin premix as growth enhancer and Medicines including high antibiotics which are harmful for us as end user.

We decided to have the trial with moringa leaf powder for growth as well as for disease prevention.

We found tremendous result on is which is as follow

Moringa leaf powder started feeding from 10 days old chick with 10% concentration for 6 days and we found following result.

| Treatment | Days | | | | Result |
|-----------------------------|----------------|---------------------|---------------------|------------------|-------------------------|
| | 0-9 | 10-13 | 21-24 | 25-36 | |
| Moringa Leaf Powder | Feed starter | Moringa Leaf + Feed | Moringa Leaf + Feed | | 1.6kg on 31 days |
| With traditional medication | Feed starter + | Feed + Medicines | Feed + Medicines | Feed + Medicines | 1.6kg on 36 days |

Here we must mention the benefit of farmer.

- a) The farmer have save 5 days in one harvesting
- b) In general farming the cost of medicine and vitamin is around 7.5 taka but in case of moringa feeding it cost only 3.5 taka so Farmer saving 4taka per chick production
- c) The farmer have less risk (5days) while using moringa leaf
- d) 5 days over head expenses saving
- e) And most important is no medicines residue in the meet of chicken.
- f) Mortality rate goes down.

2. Dairy

Moring is rich in protein and amino acid so it is excellent for milk enhancer and well as growth promoters and we take this chance to have trial on diary. The result is as follow

It is been found from BLRI research and trail session that a milk of cow has been increased 50% only after four days of serving moringa cattle feed. The cow got 1kg of moringa powder each day which cost only 32taka (8 tk per kg moringa dry matter to make cattle feed).

The result found the quality of milk and meat is better with more nutrition.

3. T-Aman/Sesame/Mung/Watermelon or Moringa fruits (pods).

T-Aman, Sesame, Mung or Watermelon is not the competitor for Moringa commercial leaf production. T-Aman grows in low lands, mung, sesame and watermelon produces in those lands where one session becomes water logged and these productions happen when the land is dry. For moringa commercial cultivation we will use the non usable or barren high lands like ailes of the rice production areas and high banks of “ChingriGher” where nothing cultivates.

| | T-Aman | Moringa green pods |
|-------------------------------------|--------|--------------------|
| production per acre in tons | | 2.95 |
| production from one tree | | 80 |
| sales price on average (in taka) | | 80 |
| Total sales in one season (in taka) | 49,500 | 6,400 |
| cost for production in taka | 2,637 | - |
| Net profit in taka | 46,863 | 6,400 |

7 CHAPTER SIX: CONCLUSION

7.1 CONCLUSION

7.1.1 Project

The project is new and agro-based. It is in a growing sector of the economy. The proposed product will contribute to improve the fertility of land, and help increased farming and farm production. Our Human product will also help to prevent malnutrition.

7.1.2 Management

The management of the organization comprises 6 (six) women entrepreneurs. The CEO has experience in running different business. Others have also vast knowledge on Nutritional supplement, medicine and agriculture also.

7.1.3 Marketing

There is a large demand supply gap in the market. Most of the people of our country depend on medicine which is making of chemical composition and it also harmful for our body. We are the pioneers of single molecule supplement in the country. The demand for organic fertilizer is also growing rapidly owing to the need for balanced composition of nutrients, and development of high yielding capacity and conservation of soil structure.

7.1.4 Technical

The technology and process involved in this type of industry is not very uncommon in this country and the required technical personnel will be available. Besides, the machinery supplier will provide technical know-how, detailed project design, engineering services and project management services. The project will strictly comply with the rules and regulations of the Government in manufacturing its proposed products.

7.1.5 Financial

From the financial point of view, the project seems to be rewarding and viable. The IRR of the project comes to 27.99%. However, the success of the project will depend on the following:

- Qualified technical experts will be in place to take care of the production and quality aspects of the project.
- An established marketing agency will be engaged to launch a vigorous marketing and distribution drive throughout the country.
- The project would help and contribute a lot to the improvement of the agriculture sector in the country.
