

Pre-Feasibility Study

(Honey Production, Processing, Packaging & Marketing)



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Ministry of Industries & Production
Government of Pakistan

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Note: All SMEDA Services / information related to PM's Youth Business Loan are Free of Cost

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S M E D A

1. DISCLAIMER

This information memorandum is to introduce the subject matter and provide a general idea and information on the said subject. Although, the material included in this document is based on data / information gathered from various reliable sources; however, it is based upon certain assumptions which may differ from case to case. The information has been provided on an 'as is where is' basis without any warranties or assertions as to the correctness or soundness thereof. Although, due care and diligence has been taken to compile this document, the contained information may vary due to any change in any of the concerned factors, and the actual results may differ substantially from the presented information. SMEDA, its employees or agents do not assume any liability for any financial or other loss resulting from this memorandum in consequence of undertaking this activity. The contained information does not preclude any further professional advice. The prospective user of this memorandum is encouraged to carry out additional diligence and gather any information which is necessary for making an informed decision; including taking professional advice from a qualified consultant / technical expert before taking any decision to act upon the information.

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2. PURPOSE OF THE DOCUMENT

The objective of the pre-feasibility study is primarily to facilitate potential entrepreneurs in project identification for investment. The project pre-feasibility may form the basis of an important investment decision and in order to serve this objective, the document/study covers various aspects of project concept development, start-up, production, marketing, finance and business management. The document also provides sectoral information, brief on government policies and international scenario, which have some bearing on the project itself.

The purpose of this document is to facilitate potential investors in **Honey Production, Packaging & Marketing business** by providing them a holistic as well as a micro view of business with the hope that such information as provided herein will help the potential investors in crucial investment decisions.

The need to come up with pre-feasibility reports for undocumented or minimally documented sectors attains greater imminence as the research that precedes such reports reveal certain thumbs of rules; best practices developed by existing enterprises by trial and error, and certain industrial norms that become a guiding source regarding various aspects of business set-up and it's successful management.

Apart from carefully studying the whole document one must consider critical aspects provided later on, which form basis of any Investment Decision.

3. INTRODUCTION TO SMEDA

The Small and Medium Enterprises Development Authority (SMEDA) was established in October 1998 with an objective to provide fresh impetus to the economy through development of Small and Medium Enterprises (SMEs).

With a mission "to assist in employment generation and value addition to the national income, through development of the SME sector, by helping increase the number, scale and competitiveness of SMEs" , SMEDA has carried out 'sectoral research' to identify policy, access to finance, business development services, strategic initiatives and institutional collaboration and networking initiatives.

Preparation and dissemination of prefeasibility studies in key areas of investment has been a successful hallmark of SME facilitation by SMEDA.

Concurrent to the prefeasibility studies, a broad spectrum of business development services is also offered to the SMEs by SMEDA. These services include identification of experts and consultants and delivery of need based capacity building programs of different types in addition to business guidance through help desk services.

4. INTRODUCTION TO SCHEME

'Prime Minister's Youth Business Loan' program , for young entrepreneurs, with an allocated budget of Rs. 5.0 Billion for the year 2013-14, is designed to provide subsidised financing at 8% mark-up per annum for one hundred thousand (100,000) beneficiaries, through designated financial institutions, initially by the National Bank of Pakistan (NBP) and the First Women Bank Ltd. (FWBL).

Small business loans upto 2 million with tenure up to 8 years, inclusive of a 1 year grace-period and a debt : equity of 90: 10 will be disbursed to SME beneficiaries across Pakistan, covering; Punjab, Sindh, Khyber Pakhtunkhwa, Balochistan, Gilgit Baltistan, Azad Jammu & Kashmir and Federally Administered Tribal Areas (FATA).

5. EXECUTIVE SUMMARY

The project of honey production, processing, packaging and marketing envisages the farming of honeybees, extraction of honey followed by packaging and then distribution or supply to the consumer market. The proposed business will start with 125 beehives initially with a potential to reach at 315 hives.

Honey Production is proposed to be located at areas where wild plantation and crop farming is common. In Punjab, Haripur, Attock, Sargodha, Duska are ideal places for honey bee farming, while in KPK, Karak, Kohat, Sawat and Bannu are most suitable. In Balochistan and Sindh a few areas of Qallat and Sujawal respectively are suitable for honey production as per discussion with experts.

Product(s) include Honey & Berry Honey.

Capacity; Installed capacity 5,000 Kg and initial utilization 75 %

Total Cost Estimate is **Rs. 2.19 million** with fixed investment **Rs. 1.80 million** and working capital **Rs. 0.39 million**

Given the cost assumptions IRR and payback are 47 % and 2.5 years respectively

The most critical considerations or factors for success of the project are;

1. Networking with the honey suppliers from all over the country would be necessary to meet any requirement or shortfall
2. Consistent quality of honey from the production facility

6. BRIEF DESCRIPTION OF PROJECT

Prospect for honey production & processing, to be used for food product and medicine, will have two separate locations, one for setting up beehives colony and other for refining cum packaging process.

- **Technology:** Honey processing and packaging requiring simple tools & equipment for refining and packaging with necessary equipment and machinery. The proposed unit requires basic honey extracting equipments including Manual Honey Extractor, De-capping Knives & utensils, Small Drums and Camping Equipment for Apiary Staff and Standard Hives.
- **Location:** The proposed business can be done in all 2nd & 3rd tier cities / towns of Pakistan. The hives will be kept on places with abundant supply of nectar-secreting and pollen bearing plants
- **Target Market:** In addition to local markets in Karachi, Lahore and Islamabad an enormous export market for Pakistani honey exists in Saudi Arabia, UAE, USA, Kuwait and Jordan.
- **Employment Generation:** The proposed project will provide direct employment to 04 people. Financial analysis shows the unit shall be profitable from the very first year of operation

7. CRITICAL FACTORS

Individuals considering entering the honey industry must carefully consider the following factors:

1. Networking with the honey suppliers from all over the country would be necessary to meet any excess requirement or shortfall
2. Consistent quality of honey from the production facility
3. Availability of skilled manpower
4. Wholesaler contracts
5. Access to crop and fields that provide foraging for bees and results in good produce of honey.

8. INSTALLED AND OPERATIONAL CAPACITIES

For this project it is assumed that the production will start from utilizing 125 Bee Hives. Average production from one colony is 30 Kg per year, where 24 Kg is Natural Honey and 6 Kg is Berry Honey. The initial total honey production would be 3750 Kg per year based on the above mentioned assumptions.

9. GEOGRAPHICAL POTENTIAL FOR INVESTMENT

Honey extraction, processing, packaging and marketing is considered to be a small scale business in Pakistan. There are two types of honey known in the market, one is wild honey for which the largest source is FATA areas and Changa Manga (Punjab), while, farm honey is produced largely in Punjab and some areas of NWFP & Sindh.

Following areas have been identified where significant opportunities for honeybee farming exist, yet are not in practice:

Punjab:

- Bahawalpur
- Multan
- Lodhra
- Sahiwal
- Kusur
- Jhelum
- Attock
- Islamabad
- Bhalwal
- Kohat
- Sargodha
- Kot Momin
- Shaheen Abad
- Faisalabad
- Mandi Bahauddin
- Gujrat
- Sheikhupura
- Gujranwala
- Daska

The logo for SMEDA (Small and Medium Enterprise Development Authority) is displayed in a stylized, bold, white font on a dark blue rectangular background. The letters are spaced out and have a slight shadow effect.

- Sialkot

Khyber Pakhtonkhuwa

- Bannu
- Karak
- Noushehra
- Swat
- Kohat

Sindh

- Sujawal
- Tando Allahyar
- Tando Jam
- Thatta
- Mirpur Khas

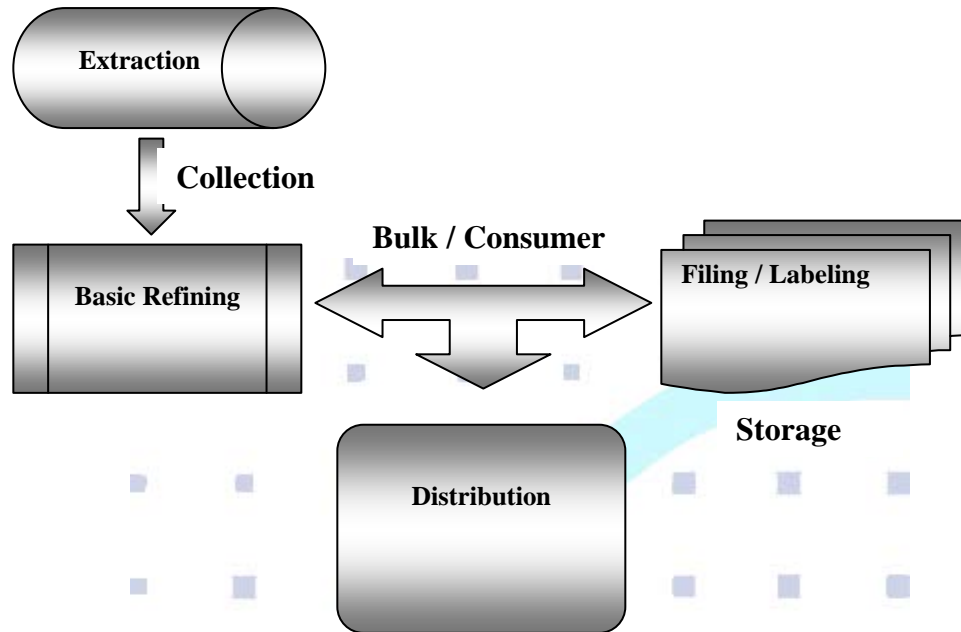
10. POTENTIAL TARGET MARKET

While looking at major honey markets and honey demand, Karachi is considered to be the biggest urban market which consumes about one-third of the total production. Other major cities such as Lahore and Rawalpindi etc. are attractive local markets While for international markets, Saudi Arabia, UAE, USA, Kuwait and Jordan are good potential markets for Natural Honey.

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11. PRODUCTION PROCESS FLOW

Following production process is generally followed:



Extraction

Honey is extracted manually through steel extractor and other utensils.

Basic Refining

For the proposed project, it is assumed that honey will be supplied in pure form and without processing. However, basic refining and filtration will be done to bring it in a form, acceptable to most consumers before placing it in bulk containers or moving it to bottling sections.

Filling & Labeling

Manual filling Lines include bottle cleaning, filling, capping, front and back labeling and packing. All finished goods are delivered to storage areas manually.

Warehousing / Distribution

The finished products are stored in the warehouse and distributed according to the plan throughout the year as shelf life of honey is generally high.

12. PROJECT COST SUMMARY

A detailed financial model has been developed to analyze the commercial viability of Honey Production, Packaging & Marketing under the 'Prime Minister's Youth Business Loan' program. Various cost and revenue related assumptions along with results of the analysis are outlined in this section.

The projected Income Statement, Cash Flow Statement and Balance Sheet are attached as annexures.

12.1 Project Economics

All the figures in this financial model have been calculated for Honey production on 125 hives with an annual production of 3,000 Kg Honey and 750 Kg Honey Berry.

The following table shows internal rate of return and payback period.

Table 1 - Project Economics

Description	Details
Internal Rate of Return (IRR)	47%
Payback Period (yrs)	2.5
Net Present Value (NPV)	6,174,712

Returns on the scheme and its profitability are highly dependent on quality of hives, suitable location, good farming practices and availability of trained staff. The project will not be able to cover the potential demand of consumers and recover payments, if these factors are not efficiently managed and will also lead to increased operating cost. Similarly, good quality hives and choosing best suitable location will yield more profit in this business.

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12.2 Project Financing

Following table provides details of the equity required and variables related to bank loan;

Table 2 - Project Financing

Description	Details
Total Equity (10%)	Rs.218,966
Bank Loan (90%.)	Rs.1,970,696
Markup to the Borrower (%age/annum)	8%
Tenure of the Loan (Years)	08
Grace Period (Years)	01

12.3 Project Cost

Following requirements have been identified for operations of the proposed business.

Table 3: Capital Investment for the Project

Capital Investment	Amount (Rs.)
Land (Leased / Rental basis)	
Hives	1,500,000
Equipments	70,000
Renovation Cost	50,000
Office Furniture	131,000
Preliminary Expenses	50,000
Total Capital Cost	1,801,000
Initial Working Capital	388,662
Total Project Cost	2,189,662

12.4 Space Requirement

Honey will be produced using 125 hives / boxes initially, placed at any suitable location which are leased or freely available on rent. Packaging and marketing will be managed from the factory office situated in semi commercial or informed industry cluster of any major city and can be set up on a monthly rental basis. For this project it is assumed that the following lease/rentals rates will applicable for the packaging and marketing office.

Table 4: Land Requirement

Area Required	Area (Sq. Ft.)	Monthly Rent Charges (Rs.)	Yearly Rent(Rs.)
Management/ Factory Office	500	15,000	180,000
Total Rent		15,000	180,000

12.5 Machinery and Equipment

Following table provides list of machinery and equipment required for production and packaging of Honey.

Table 5: List of Machinery and Equipment & Hives

Description	Quantity	Cost Rs/unit	Total Rs.
Manual Honey Extractor (Steel) De-capping Knives / Utensils Small Drums	1	25,000	25,000
Camping Equipments for Apiary Staff	1	25,000	25,000
Packaging / Filling Line	1	20,000	20,000
Hives	125	12,000	1,500,000
Total			1,570,000

These costs are based on the assumption that a setup is required for filling, packing and marketing of honey across the country.

Table 6: Equipment & Office Furniture

	Quantity	Cost	Amount
Office Equipment			
Computer with UPS	1	45,000	45,000
Printer	1	15,000	15,000
Fax & Telephone	1	15,000	15,000
Furniture & Fixture			
Table & Chair for Owner	1	10,000	10,000
Table & Chair for QC / Supervisor	2	10,000	20,000
Waiting Chairs	4	1,000	4,000
Curtains	1	10,000	10,000
Electric Fittings	1	5,000	5,000

Others		7,000	7,000
Total			131,000

12.6 Raw Material Requirements

Table 7: Cost of Material (Per Hive / Year)

	Unit	Qty	Rate	Rs. Total
Supplement Feeding	KG	10	80	800
Bottles & Cartons	No.	65	10	650
Labels	No.	65	0.92	60
Cost per hive				1,510

12.7 Human Resource Requirement

Table 8: Human Resource Requirement

Description	Nos.	Salary per employee per month (Rs.0)
Business Unit Manager / Owner	1	16,000
Supervisor / QC	1	10,000
Packaging Staff	1	10,000
Bee Attendant	1	10,000
Total Staff	4	46,000

The table above provides details of human resource required to run a Honey Production, Packaging and Marketing Company. Salaries of all employees are estimated to increase 10% annually.

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12.8 Revenue Generation

Honey will be marketed in 125, 250, 500 and 1000 Grams sizes of bottles. Average retail price of all denominations are calculated as follows. Small bottles attract a higher selling price as compared to large bottles.

Table 9 - Project Economics

Product	Unit (Bottles)	Sales Price (Rs./Unit)	First Year Production (Rs)
125 Grams	3,200	85	272,000
250 Grams	2,000	140	280,000
500 Grams	1,600	210	336,000
1000 Grams	1,300	375	487,500
Honey Berry 1000 Grams	750	1,000	750,000
Total Sales Revenue			2,125,500

12.9 Other Costs

Miscellaneous expenses have been built into the project at Rs. 5,000 per month.

• **Working Capital Requirements:** It is estimated that an additional amount of approximately Rs. 298,662 will be required as cash in hand to meet the initial working capital requirements during operations. The requirement is based on the utilities, salaries, raw material inventories and miscellaneous expense for at least three months. The following table gives the break up.

Table 10 – Working Capital Requirement

	Months	Monthly Charges (Rs.)
Utilities	03	90,000
Salaries	03	138,000
Raw Material Inventory	03	55,662
Miscellaneous Expense	03	15,000
Total		298,662



13. CONTACTS – SUPPLIERS, EXPERTS / CONSULTANTS

Honey extractors and hives can easily be procured from Tarnab Farm market Peshawar. The following suppliers can be contacted for the supply of machinery:

Mr. Tanveer ul Hasan

Cosmos International
S-6, A-206, Block 13-C
Gulshan-e-Iqbal
Karachi

Ph: 02134979574 / 0301-2760137

Email: cosmosinternat@yahoo.com
cosmosinternat@hotmail.com



Honey Consultant and Trainer

Mr. Syed Asim Zafar Shah

Head Office:

SHAH FARMS

4 & 6 Dilkusha Chamber

Opp. Godeon Cinema

Marston Road, Karachi, Pakistan

Off: 9221-38202639

Cell 92-333-2264322

E-mail: shahfarm@cyber.net.pk

Mr. M. S. Munawar

PSO

Honeybee Research Institute

National Agriculture Research Centre (NARC)

Park Road, Islamabad

Tel: +92-51 9255061, +92-51 9255012

Cell: 0344-8586397

There are many local suppliers of Honey packaging machinery working at Karachi and other cities who could be contacted for obtaining packaging machinery; however, during the course of study for this pre-feasibility we have contacted the following local manufacturer:

Bizko Tech Engineering

Orangi No. 5, Near Police Station, Karachi.

Phone +9221-35427334

Honey will be supplied from the business owned production facility; however, for the procurement of other material, following suppliers may be contacted.

For Labels and Cartons

Akmal print house

A-70 Manghopir Road

Opp. Kulsoom Bai Valika Hospital

Karachi. PH. 021-32595301

For Glass Bottle

Ghani Glass Ltd

12- D/3 Chandni Chowk

KDA Scheme # 7 & 8

Karachi.



Bottle Market

Bottle Gali, Light House, Karachi

14. ANNEXURES

14.1 Income Statement

Honey Production, Processing and Packaging										
Projected Income Statement (Rs.)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Revenue	1,375,500	1,664,355	1,830,791	2,013,870	2,215,257	2,436,782	2,680,460	2,948,506	3,243,357	3,567,693
Revenue - Baiiry	750,000	901,250	1,067,625	1,250,638	1,451,951	1,673,396	1,916,986	2,184,935	2,479,678	2,803,896
Beginning Inventory	-	44,087	48,495	53,345	58,679	64,547	71,002	78,102	85,912	94,503
Ending Inventory	44,087	48,495	53,345	58,679	64,547	71,002	78,102	85,912	94,503	103,954
Gross Revenue	2,081,413	2,517,110	2,845,071	3,205,828	3,602,661	4,039,177	4,519,344	5,047,529	5,628,532	6,267,635
Sales on Credit	1,040,707	1,258,555	1,422,535	1,602,914	1,801,330	2,019,588	2,259,672	2,523,764	2,814,266	3,133,817
Sales on Cash	1,040,707	1,258,555	1,422,535	1,602,914	1,801,330	2,019,588	2,259,672	2,523,764	2,814,266	3,133,817
Bed Debt Expenses	20,814	25,171	28,451	32,058	36,027	40,392	45,193	50,475	56,285	62,676
Net (Adjusted Sales)	2,060,599	2,517,110	2,845,071	3,205,828	3,602,661	4,039,177	4,519,344	5,047,529	5,628,532	6,267,635
Cost of Sales	923,750	1,016,125	1,117,738	1,229,511	1,352,462	1,487,709	1,636,479	1,800,127	1,980,140	2,178,154
Honey Production Cost	188,750	207,625	228,388	251,226	276,349	303,984	334,382	367,820	404,602	445,063
Labor (Production Staff)	552,000	607,200	667,920	734,712	808,183	889,002	977,902	1,075,692	1,183,261	1,301,587
Processing Cost	180,000	198,000	217,800	239,580	263,538	289,892	318,881	350,769	385,846	424,431
Research Cost	3,000	3,300	3,630	3,993	4,392	4,832	5,315	5,846	6,431	7,074
Gross Profit	1,136,849	1,500,985	1,727,333	1,976,317	2,250,198	2,551,468	2,882,865	3,247,401	3,648,392	4,089,481
Gross Profit Margin	55%	60%	61%	62%	62%	63%	64%	64%	65%	65%
General Administrative & Selling Expenses										
Salaries	-	-	-	-	-	-	-	-	-	-
Factory/Office Miscellaneous Expenses	60,000	66,000	72,600	79,860	87,846	96,631	106,294	116,923	128,615	141,477
Rent Expense	180,000	198,000	217,800	239,580	263,538	289,892	318,881	350,769	385,846	424,431
Amortization of Preliminary Expenses	10,000	10,000	10,000	10,000	10,000	-	-	-	-	-
Depreciation Expense	175,100	172,590	171,831	172,798	175,483	180,146	186,289	194,234	204,041	215,791
Maintenance Expense	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100
Distribution & Retailer Margin	206,060	226,666	249,333	274,266	301,692	331,862	365,048	401,553	441,708	485,879
Selling & Distribution Promotion Expense	41,212	50,342	56,901	64,117	72,053	80,784	90,387	100,951	112,571	125,353
Subtotal	674,472	725,698	780,565	842,720	912,713	981,414	1,068,999	1,166,529	1,274,881	1,395,030
Operating Income	462,377	775,287	946,768	1,133,596	1,337,486	1,570,054	1,813,866	2,080,872	2,373,511	2,694,451
Financial Charges (8% Per Annum)	157,656	149,747	131,583	111,912	90,608	67,536	15,487	15,487	-	-
Earnings Before Taxes	304,722	625,540	815,185	1,021,684	1,246,878	1,502,519	1,798,379	2,065,385	2,373,511	2,694,451
Tax	-	62,554	44,778	75,753	109,532	148,004	207,176	260,577	322,202	396,113
Net Profit	304,722	562,986	770,407	945,932	1,137,346	1,354,515	1,591,203	1,804,808	2,051,309	2,298,338
Monthly Profit After Tax	25,393	46,915	64,201	78,828	94,779	112,876	132,600	150,401	170,942	191,528

14.2 Balance Sheet

Honey Production, Processing and Packaging											
Projected Balance Sheet (Rs.)	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Assets											
<i>Current Assets</i>											
Cash & Bank Balance	243,000	685,305	1,046,981	1,583,802	2,259,602	3,086,072	4,082,214	5,272,453	6,631,060	8,570,341	10,734,296
Raw Material Inventory	55,662	15,729	17,302	19,032	20,936	23,029	25,332	27,865	30,652	33,717	37,089
Finished Goods Inventory	0	44,087	48,495	53,345	58,679	64,547	71,002	78,102	85,912	94,503	103,954
Accounts Receivable	0	43,363	52,440	59,272	66,788	75,055	84,150	94,153	105,157	117,261	130,576
Advance Rent	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000
Total Current Assets	388,662	878,484	1,255,218	1,805,451	2,496,005	3,338,704	4,352,697	5,562,574	6,942,781	8,905,823	11,095,914
<i>Fixed Assets</i>											
Plant Machinery & Facility	70,000	63,000	56,700	51,030	45,927	41,334	37,201	33,481	30,133	27,119	24,407
Capital Expenditure (Hives)	1,500,000	1,350,000	1,350,000	1,363,500	1,390,500	1,431,135	1,485,675	1,554,526	1,638,234	1,737,488	1,853,124
Factory Construction	50,000	45,000	40,500	36,450	32,805	32,025	28,822	25,940	23,346	21,011	21,410
Land	0	0	0	0	0	0	0	0	0	0	0
Furniture & Fixtures	131,000	117,900	106,110	95,499	85,949	77,354	69,619	62,657	56,391	50,752	45,677
Vehicle	0	0	0	0	0	0	0	0	0	0	0
Total Fixed Assets	1,751,000	1,575,900	1,553,310	1,546,479	1,555,181	1,581,848	1,621,317	1,676,604	1,748,104	1,836,371	1,944,618
<i>Intangible Assets</i>											
Preliminary Expenses	50,000	40,000	30,000	20,000	10,000	-	-	-	-	-	-
Total Assets	2,189,662	2,494,384	2,838,528	3,371,930	4,061,186	4,920,552	5,974,014	7,239,178	8,690,885	10,742,193	13,040,532
Owner's Equity	218,966	523,688	1,086,674	1,857,081	2,803,013	3,940,359	5,294,874	6,886,077	8,690,885	10,742,193	13,040,532
Long Term Liability	1,970,696	1,970,696	1,751,854	1,514,849	1,258,173	980,193	679,140	353,101	0	0	0
Total Equity & Liabilities	2,189,662	2,494,384	2,838,528	3,371,930	4,061,186	4,920,552	5,974,014	7,239,178	8,690,885	10,742,193	13,040,532



14.3 Cash Flow Statement

Honey Production, Processing and Packaging											
Projected Statement of Cash Flows (Rs.)	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Cash Flow From Operating Activities											
Net Profit	0	304,722	562,986	770,407	945,932	1,137,346	1,354,515	1,591,203	1,804,808	2,051,309	2,298,338
Add: Depreciation Expense	0	175,100	172,590	171,831	172,798	175,483	180,146	186,289	194,234	204,041	215,791
Amortization Expense	0	10,000	10,000	10,000	10,000	10,000	-	-	-	-	-
(Increase) / decrease in Receivables	-	(43,363)	(9,077)	(6,833)	(7,516)	(8,267)	(9,094)	(10,003)	(11,004)	(12,104)	(13,315)
(Increase) / decrease in RM	-	39,933	(1,573)	(1,730)	(1,903)	(2,094)	(2,303)	(2,533)	(2,787)	(3,065)	(3,372)
(Increase) / decrease in FG Inventory	-	(44,087)	(4,409)	(4,850)	(5,334)	(5,868)	(6,455)	(7,100)	(7,810)	(8,591)	(9,450)
Net Cash Flow From Operations	0	442,305	730,517	938,826	1,113,976	1,306,600	1,516,809	1,757,856	1,977,441	2,231,589	2,487,993
Cash Flow From Financing Activities											
Receipt of Long Term Debt	1,970,696										
Repayment of Long Term Debt		0	(218,841)	(237,005)	(256,676)	(277,980)	(301,052)	(326,040)	(353,101)	-	-
Owner's Equity	218,966										
Net Cash Flow From Financing Activities	2,189,662	0	(218,841)	(237,005)	(256,676)	(277,980)	(301,052)	(326,040)	(353,101)	0	0
Cash Flow From Investing Activities											
Processing and Packaging Machine	(70,000)					(2,500)					(2,500)
Capital Expenditure (Hives)	(1,500,000)		(150,000)	(165,000)	(181,500)	(199,650)	(219,615)	(241,577)	(265,734)	(292,308)	(321,538)
Factory/Office Furniture	(131,000)										
Preliminary Operating Expenses	(50,000)										
Purchase of Raw Material Inventory	(55,662)										
Advance Rent	(90,000)										
Construction & Renovation	(50,000)										
Net Cash Flow From Investing Activities	(1,946,662)	0	(150,000)	(165,000)	(181,500)	(202,150)	(219,615)	(241,577)	(265,734)	(292,308)	(324,038)
NET CASH FLOW	243,000	442,305	361,676	536,821	675,800	826,470	996,142	1,190,239	1,358,606	1,939,282	2,163,954
Cash at the Beginning of the Period	0	243,000	685,305	1,046,981	1,583,802	2,259,602	3,086,072	4,082,214	5,272,453	6,631,060	8,570,341
Cash at the End of the Period	243,000	685,305	1,046,981	1,583,802	2,259,602	3,086,072	4,082,214	5,272,453	6,631,060	8,570,341	10,734,296

S M E D A

14.4 Useful Project Management Tips

Technology

Manual Honey Extractor (Steel)
De-capping Knives / Utensils
Small Drums

Camping Equipments for Apiary Staff

Packaging / Filling Line

Hives

- **Energy Requirement:** Should not be overestimated or installed in excess and alternate source of energy for critical operations be arranged in advance
- **Machinery Suppliers:** Should be asked for training and after sales services under the contract with the machinery suppliers
- **Quality Assurance Equipment & Standards:** Whatever means required products quality standards need to be defined on the packaging and a system to check them instituted, this improves credibility

Marketing

- **Product Development & Packaging:** Expert's help may be engaged for product/service and packaging design & development
- **Ads & P.O.S. Promotion:** Business promotion and dissemination through banners and launch events is highly recommended. Product brochures from good quality service providers should be acquired.
- **Sales & Distribution Network:** Expert's advise and distribution agreements are required with relevant distributors.
- **Price - Bulk Discounts, Cost plus Introductory Discounts:** Price should never be allowed to compromise quality. Price during introductory phase may be lower and used as promotional tool. Product cost estimates should be carefully documented before price setting.
- **Human Resources**

Business Unit Manager / Owner

Supervisor / QC

Packaging Staff

Bee Attendant

- **Adequacy & Competencies:** Skilled and experienced staff should be considered an investment even to the extent of offering share in business profit.
- **Performance Based Remuneration:** Attempt to manage human resource cost should be focused through performance measurement and performance based compensation.
- **Training & Skill Development:** Encouraging training and skill of self & employees through experts and exposure of best practices is the route to success. Least cost options for Training and Skill Development (T&SD) may be linked with compensation benefits and awards.

14.5 Useful Links

- **Prime Minister's Office** www.pmo.gov.pk
- **Small & Medium Enterprises Development Authority (SMEDA)** www.smeda.org.pk
- **National Bank of Pakistan (NBP)** www.nbp.com.pk
- **First Women Bank Limited (FWBL)** www.fwbl.com.pk
- **Government of Pakistan** www.pakistan.gov.pk
- **Ministry of Industries & Production** www.moip.gov.pk
- **Ministry of Education, Training & Standards in Higher Education** <http://moptt.gov.pk>
- **Government of Punjab** www.punjab.gov.pk
- **Government of Sindh** www.sindh.gov.pk
- **Government of Khyber Pakhtoonkhwa** www.khyberpakhtunkhwa.gov.pk
- **Government of Balochistan** www.balochistan.gov.pk
- **Government of Gilgit Baltistan** www.gilgitbaltistan.gov.pk
- **Government of Azad Jammu & Kashmir** www.ajk.gov.pk
- **Trade Development Authority of Pakistan (TDAP)** www.tdap.gov.pk
- **Securities & Exchange Commission of Pakistan (SECP)** www.secp.gov.pk
- **Federation of Pakistan Chambers of Commerce and Industry (FPCCI)** www.fpcci.com.pk
- **State Bank of Pakistan (SBP)** www.sbp.org.pk

15. KEY ASSUMPTIONS

Description	
Debt Equity Ratio	90:10
Interest Rate	8%
Loan Tenure	8 Years
Grace Period	1 Year
Sales Price Growth Rate	10%
Depreciation Rate	10%
Weighted Average Cost of Capital	9.2%
Prepaid Rent Period	6 Months
Increase in Staff Salaries	10%
Increase in Office expense	10%



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