
Pre-Feasibility Study

TOMATO PASTE AND FRUIT PULPING UNIT



Small and Medium Enterprises Development Authority
Ministry of Industries & Production
Government of Pakistan
www.smeda.org.pk

HEAD OFFICE

4th Floor, Building No. 3, Aiwan-e-Iqbal Complex, Egerton Road,
Lahore
Tel (92 42) 111 111 456, Fax: (92 42) 36304926-7
helpdesk@smeda.org.pk

REGIONAL OFFICE PUNJAB	REGIONAL OFFICE SINDH	REGIONAL OFFICE KHYBER PAKTUNKHWA	REGIONAL OFFICE BALOCHISTAN
3 rd Floor, Building No. 3, Aiwan-e-Iqbal Complex, Egerton Road, Lahore. Tel: (042) 111 111 456, Fax: (042) 36304926-7 helpdesk.punjab@smeda.org.pk	5 th Floor, Bahria Complex II, M.T. Khan Road, Karachi. Tel: (021) 111-111-456 Fax: (021) 35610572 helpdesk-khi@smeda.org.pk	Ground Floor State Life Building The Mall, Peshawar. Tel: (091)111 111 456,9213046-7 Fax: (091) 5286908 helpdesk-pew@smeda.org.pk	Bungalow No. 15-A Chamn Housing Scheme Airport Road, Quetta. Tel: (081) 2831623, 2831702 Fax: (081) 2831922 helpdesk-qta@smeda.org.pk

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1 DISCLAIMER

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2 EXECUTIVE SUMMARY

Nature has blessed Pakistan with an ideal climate for growing a large variety of fruits and vegetables. However around 30% of vegetables / fruits are wasted due to negligence and lack of processing facilities which could convert them into non-perishable value added commodity. The demand of processed food is increasing tremendously across the globe. Pakistan being an agricultural country has huge potential to capitalize on this growing demand of value added vegetable / fruit products both in international and local market.

This particular pre-feasibility study is for setting-up a medium sized “Tomato Paste and Fruit (Mango & Guava) Pulping Unit. This business venture should ideally be started in urban cities of South Punjab and Interior Sindh. The proposed unit will have a maximum capacity of producing 1,280 tons of tomato paste, 6,720 tons of mango pulp and 5,600 tons of guava pulp. The initial operational capacity of the proposed unit is assumed at 60% (768 tons tomato paste, 4,032 tons mango pulp and 3,360 tons guava pulp), whereas maximum capacity is considered as 95% .This production capacity is estimated to be economically viable and justifies the capital as well as operational costs of the project. Technical knowledge and experience of the entrepreneur is absolutely necessary for the success of the proposed venture.

The estimated cost of the project is Rs. 515.57 million out of which Rs. 427.28 million would be capital investment and remaining Rs. 88.29 million would be for working capital. The project is proposed to be financed through 50% debt and 50% equity. The project NPV is around Rs. 174.06 million, with an IRR of 23% and payback period of 4.75 years. The project will provide employment opportunities to 45 people including owner manager. The legal status of this project is proposed as ‘Sole Proprietorship’.

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 'sectorial 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 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, and production, marketing, finance and business management.

The purpose of this document is to facilitate potential investors in **Tomato Paste and Fruit Pulping Unit** business by providing them a general understanding of the business with intention of supporting 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 thumb 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 shall form the basis of any investment decision.

5 BRIEF DESCRIPTION OF PROJECT & PRODUCT

Nature has blessed Pakistan with an ideal climate for growing a large variety of vegetables and fruits, most notably Mango, Citrus, Guava, Apple, Onion, Potato, Tomato

etc. Unfortunately, production of fruits in Pakistan has often not been accompanied by better post-harvest management and appropriate modernization of the processing techniques. It has been observed that demand of value added products, especially fruit pulps and paste, has increased tremendously due to its use as raw material for juices, ice cream, fruit yogurts, ketchup and other similar items in both local and international markets.

Pakistan is the one of the largest fresh fruit exporters of the world and has huge demand in the international market due to rich flavor, aroma and taste. However, we are nowhere in the export of fruit pulp that has huge exporting potentials. Similarly, fruit juices and beverages industry is recognized as the leading industries, which also requires adequate supply of fruit pulp from the local market. Therefore, in order to cater for the demand of local super store / international markets our fruit processors requires modern processing facilities.

Due to stated reasons, the pulping of fresh fruits is a commercially viable business option for investors. Accordingly, this particular project is related to setting-up a modernly equipped 'Tomato Paste and Pulping Unit' especially for Tomato, Mango and Guava fruits that has huge market potentials at both local and international market levels. According to the proposed business model, raw material will be purchased directly from farmers or distributors, paste and fruit pulp will be produced and sold both in local and international markets.

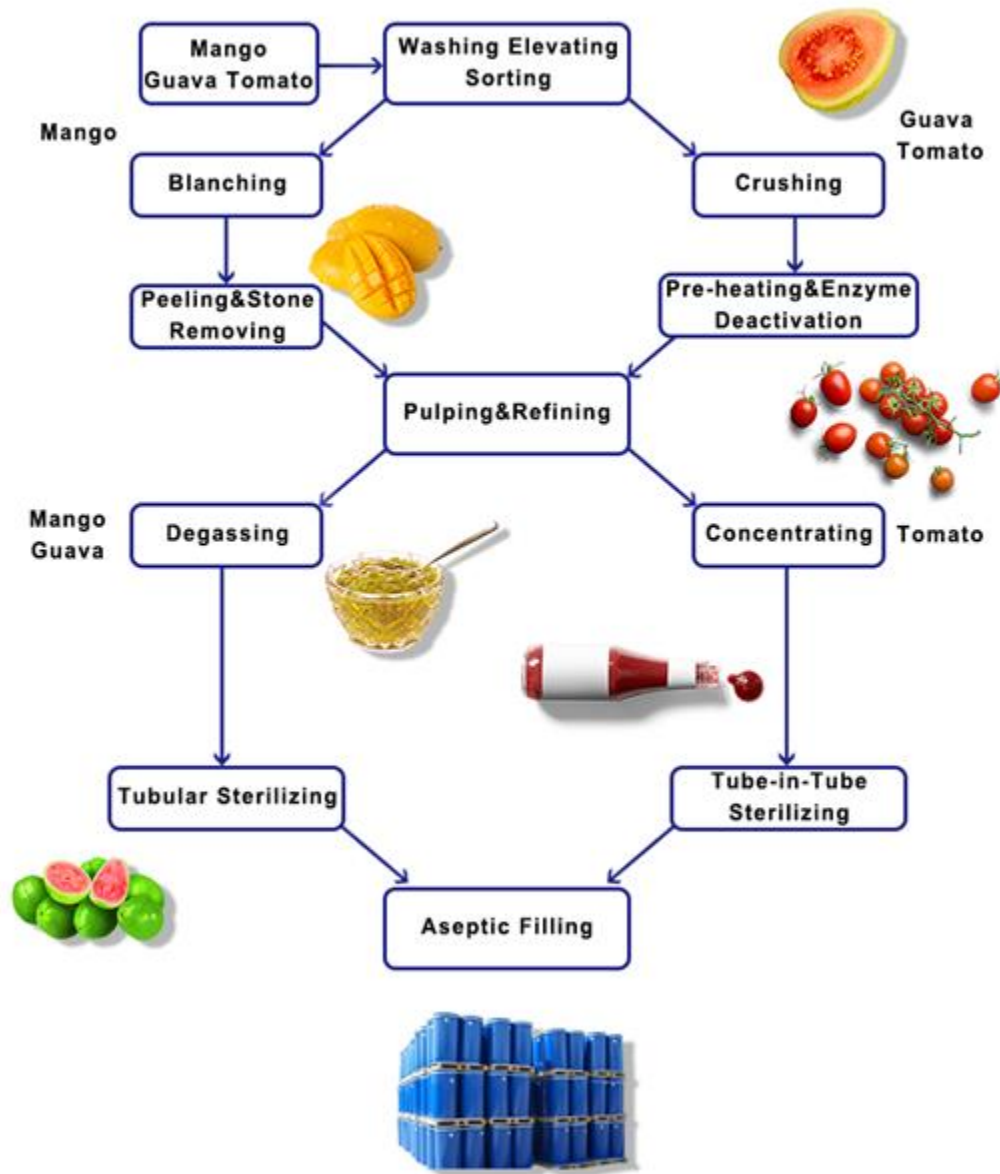
The major scope of processing activities will include post-harvest handling, pre-cooling, grading, ripening, pulping, packing and logistics.

5.1 Production Process Flow

The process flow of purposed unit services mainly entails the following sequence of activities:

Figure 1: Production Process Flow

TYPICAL MANGO, GUAVA & TOMATO SAUCE PROCESS FLOW



5.2 Installed and Operational Capacities

Following table depicts the installed and operational capacities of the proposed unit:

Table 1: Installed and Operational Capacity

Product Description	Total Installed Capacity (Tons)	Operational Capacity @ 60% (Year 1)
Tomato Paste	1,280	768
Mango Pulp	6,720	4,032
Guava Pulp	5,600	3,360

6 CRITICAL FACTORS

Following are the factors critical for the success of this business venture:

- ⇒ Background knowledge and technical qualification of the entrepreneur and key staff in horticulture and fresh fruit processing is necessary.
- ⇒ Awareness about HACCP standards and Strict Quality assurance of process and products.
- ⇒ Selection of quality fruits on the basis of best analysis of cost and revenues for a given season; cost efficiency through better management.
- ⇒ Appropriate post-harvest arrangement for transportation of product to the processing unit.
- ⇒ Appropriate storage arrangement and internal control for processed fruits; cold chain refer container arrangements for transportation to local and international markets.
- ⇒ Properly trained seed staff should be engaged and comprehensive staff training programs to be adopted for capacity building.
- ⇒ Processing contract with farmers and traders for value added business opportunities.
- ⇒ Careful selection of good location and purchase of land at competitive price.
- ⇒ Effective marketing and distribution of the product particularly to the exporters, industrial units and super store buyers.

7 GEOGRAPHICAL POTENTIAL FOR INVESTMENT

The recommended location for establishing a tomato paste and fruit pulp unit is near those areas where these fruits are produced and the finished products can be transported to masses easily. Most of the Mango Orchards are in South Punjab and Sindh whereas Guava orchards are mainly found in Upper Punjab, Hyderabad, and Sukkur etc.

Therefore it is most appropriate that the proposed plant is to be established near these urban centers i.e. Karachi, Lahore, Hyderabad, Multan, Sukkur, Mirpurkhas and Bahawalpur.

8 POTENTIAL TARGET MARKETS

The proposed unit will produce tomato paste and pulp of Mango and Guava fruit. These products will not directly cater the needs of end users but target the industrial consumers. For instance tomato paste is used to produce different finished products and pulp is used as basic raw material for production of juices, ice creams, frozen desserts, flavoured yogurts, jelly, jams and many others. Accordingly, the main buyers of these products will be manufacturing concerns of stated value added fruit products and fruit juice producers both in local and international markets.

The main export markets for Pakistani processed fruits / pulp are USA, Europe, Middle East, Far East, Canada, Russia and Sri Lanka.

9 PROJECT COST SUMMARY

A detailed financial model has been developed to analyse the commercial viability of the proposed unit. Various costs 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 also attached as annexure.

9.1 Project Economics

All the figures in this financial model have been calculated for installed capacity of processing 6,400 tons of tomato for tomato paste, 9,600 tons of mango for mango pulp and 8,000 tons of guava for guava pulp.

The following table shows Internal Rate of Return, Payback Period and Net Present Value of the proposed venture:

Table 2: Project Economics

Description	Details
Internal Rate of Return (IRR)	23%
Pay Back Period	4.75 Years
Net Present Value (NPV)	Rs. 174,064,844

9.2 Project Financing

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

Table 3: Project Financing

Description	Details
Total Equity (50%)	Rs. 257,786,603
Bank Loan (50%)	Rs. 257,786,603
Annual Markup to the Borrower– Long Term Loan	12%
Tenure of the Loan (Years)	5

9.3 Project Cost

Following fixed and working capital requirements have been identified for operations of the proposed business:

Table 4: Project Investment

Capital Cost	Amount Rs.
Land	15,000,000
Building and Infrastructure	57,337,088
Machinery and Equipment	326,950,580
Furniture and Fixtures	1,461,250
Office Vehicles	1,034,800
Office Equipment	1,507,500
Pre-Operating Costs	23,990,000
Total Capital Cost	427,281,218
Working Capital	
Equipment Spare Inventory	3,000,000
Raw material Inventory	60,336,000
Upfront Insurance Payment	1,829,272
Cash	23,126,715
Total Working Capital	88,291,987
Total Project Cost	515,573,205

9.4 Machinery and Equipment Requirement

Following machinery and equipment will be required to run the operations of the proposed project:

Table 5: Machinery & Equipment Detail

Description	Quantity	Price per Unit	Total Cost (Rs.)
Imported Machinery			
Fruit Washing			13,164,000
Mango Peeling and De-Stoning			2,040,000
Guava Tomato heating and Pre-Crushing			6,600,000
Pulping			6,540,000
Sterilizing, Evaporation & Filling			66,960,000
Auxiliary System			18,492,000
Pipelines, Pumps, Valves, Wires, Cables and other accessories			4,800,000
Freight & Insurance			1,800,000
Installation, Commissioning, Start-up and Staff Training			1,560,000
Machinery Price			121,956,000
Custom Duty		5.0%	6,097,800
Sales Tax		17.5%	20,732,520
Withholding Tax		5.5%	6,707,580
Additional Sales Tax		3.0%	3,658,680
Clearance and port Charges			900,000
Loading/ Unloading Charges			150,000
Local Freight and Lifting of Machinery			1,500,000
Total Cost of Imported Machinery			161,702,580
Local Machinery			
Boiler			
Smoke tube packaged boiler, 15 ton/hr. x rotary cup burner (gas & heavy oil)	1	35,000,000	35,000,000
Water Treatment Plant (Water Softener)			
To convert hard water in soft water by Zeolite ion exchange process, required degree of hardness after treatment is 0.	1	2,000,000	2,000,000
Potable Water Treatment Plant			
20 Cu. M. per hour			1,500,000
Belt Conveyer			
To Convey fruit @ 10ton/hr from sorting area	1	1,800,000	1,800,000

to washing unit, Length 18m, Width 0.9m; belt made in reinforced rubber 2 ply belt thickness 2mm Drive: geared with starter and safety interlocking system supporting structure in MS			
Stainless steel tanks with agitators - 3000 L	2	550,000	1,100,000
Stainless steel tanks with agitators - 4000 L	2	650,000	1,300,000
Generator 1500 KVA Turbo Type, 1500KVA, 400 Volts, 50 Cycles, 1500 RPM, Power Factor 0.8		36,000,000	-
Water Chiller with Pumps	1	15,000,000	15,000,000
Piping, and valves for water, steam and air			12,400,000
Fuel tank for generator	1	500,000	500,000
Industrial Fans	15	80,000	1,200,000
Fork lift truck Battery operated with solid rubber tyres, capacity 2.5 tons, fork length 4 ft, stacking height 12 ft.	1	4,000,000	4,000,000
Waste Hopper Bin MS Sheet hopper with the stand. Bottom height 12 ft, bottom opening gate 2x 2 ft with hydraulic controlled opening. 10-12 tons holding of solid waste of fruit processing	3	1,300,000	3,900,000
Air Compressor With dryer and filter oil free screw type capacity 08 bar consumption 500 ltr/min. Storage tank for air - 1000 Ltr MS Tank	1	1,500,000	1,500,000
Weigh Bridge 30 x 10 feet size, 60 tons capacity	1	2,100,000	2,100,000
Cooling Tower	1	10,800,000	10,800,000
Effluent Water Treatment Plant	1	10,000,000	10,000,000
Workshop Items			3,500,000
Electrical Panels			5,000,000
Others (Installation, Labor charges, welding plants, tools etc.)			7,000,000

Sub Total			119,600,000
Laboratory Equipment			
Water Bath 6-8 holes with adjustable temperature	1	150,000	150,000
Spirit Lamp Burner with stand and stainless steel tongs	2	1,000	2,000
Oven Incubator with 3-5 shelves	1	150,000	150,000
Auto Clave Electric autoclave, temperature range 125-135 C	1	310,000	310,000
Colony Counter With adjustable magnifying glass	1	50,000	50,000
Microscope 4, 10, 40 and 100X binocular	1	62,000	62,000
Lab ware Autoclavable and non-auto clavable			210,000
Media Different types of medias			1,100,000
Incubator 3-5 Shelves, Temp range 10 - 60 C	1	580,000	580,000
Laminar Air Flow Cabinet	1	140,000	140,000
Miscellaneous	-		1,558,000
Weigh Balance 0.1g readability and capacity of 600-1200g	1	22,000	22,000
pH meter Bench type with pH and temperature probes	1	37,000	37,000
Conductivity meter Protabe with multiple probe including conductivity / TDS / Salt and Temperature	1	41,000	41,000
Viscometer Spindle Type	1	570,000	570,000
Viscometer Time / Flow Type	1	260,000	260,000
Centrifuge General Purpose variable speed with 15ml conical test tubes	1	290,000	290,000
Refractometer Hand type 0-32 brix and 0-53 brix	2	14,000	28,000
Refractometer Abbe's 0-95 brix	1	300,000	300,000
Thermometer Digital probe type with wide temperature range	1	46,000	46,000
Magnifying Glass General Purpose	1	5,000	5,000
Desicator	3	2,000	6,000

Stirrer Hot plate type magnet stirrer	1	21,000	21,000
Burette Digital auto burette	2	60,000	120,000
Glass Ware			150,000
Refrigerator 12 Cubic Feet Size	1	40,000	40,000
Sub Total			6,248,000
Cold Store 1,000 Tons			25,000,000
Plastic Crates	24,000	600	14,400,000
Total Machinery & Equipment			326,950,580

9.5 Office Equipment Requirement

Following tables provides list of office equipment required for setting-up an average size software house:

Table 6: Office Equipment

Description	Quantity	Unit Cost (Rs.)	Total Cost (Rs.)
Laptop	1	125,000	125,000
Computers with LCD	16	45,000	720,000
Printer	3	20,000	60,000
Scanner	1	15,000	15,000
Networking Equipment with Accessories			150,000
Mini Telephone Exchange	1	100,000	100,000
Telephone Sets	15	2,500	37,500
Fax machine	1	20,000	20,000
Photocopy Machine	1	150,000	150,000
Water Dispenser	2	20,000	40,000
Refrigerator	1	50,000	50,000
Electric Water Cooler	2	20,000	40,000
Total			1,507,500

9.6 Furniture and Fixture Requirements

The details of required furniture and fixture for the proposed software house are provided in the following table:

Table 7: Furniture and Fixture Required

Description	Quantity	Unit Cost (Rs.)	Total Cost (Rs.)
Managers Tables	11	25,000	275,000
Managers/ Officers Chairs	11	10,000	110,000
Visitor Chairs	22	7,500	165,000
Officers Tables	10	15,000	150,000
File Racks	11	15,000	165,000
Sofa Sets	2	30,000	60,000
Split Air-Conditioner	7	70,000	490,000
Misc. and Contingency		5%	46,250
Total			1,461,250

9.7 Space Requirement

The proposed tomato paste and fruit pulp unit will be set-up on purchased land. In this regard a plot measuring 10 Kanal will be acquired in any of the proposed locations. This space requirement has been calculated on the basis of proposed manpower and other official engagements. Following table provide the details of space requirement:

Table 8: Space Requirement

Description	Area (Sq. ft.)
Office Block	1,500
Meeting Room	300
Micro Lab, Lab & Office	500
Processing Hall	10,000
Sorting Hall	2,500
Cold Storage	2,500
Machine Room	500
Store	1,500
Shed	2,000
Fruit Ripening Area	4,500
Toilets	300
Change Room	250
Pavement/ Driveway	7500
Grounds Landscaping	11030
Guard Room	120
Total Area	45,000

The estimated price of per Kanal of Land is taken as Rs. 1,500,000.

9.8 Vehicle Requirement

Following vehicles will be required to cater the logistics of the proposed unit:

Table 9: Office Vehicle Requirement

Description	Quantity	Cost / Unit (Rs.)	Total Cost (Rs.)
800 cc Carry	1	800,000	800,000
70 cc Motorcycle	3	65,000	195,000
Registration Cost		4% of Vehicle cost	39,800
Total Cost of Vehicles			1,034,800

9.9 Human Resource Requirement

Following table provides details of human resource required for the project along with monthly salaries:

Table 10: Human Resource Requirement

Description	No. Of Employees	Salary per Employee Per Month (Rs)
CEO/owner	1	125,000
Manager Plant	1	100,000
Manager Finance & Admin	1	100,000
Manager Marketing	1	100,000
Marketing Executive	2	40,000
Manager Procurement	1	75,000
Purchase Officers	2	30,000
Assistant Manager Plant	1	40,000
Quality Assurance Manager	1	50,000
Electrical Incharge	1	40,000
Plant Supervisors	2	40,000
Mechanical Foreman	1	40,000
Boiler Engineer	1	40,000
Accounts Officer	2	30,000
Store Keeper	2	25,000
Quality Assurance Officer	2	30,000

Assistant to Admin & HR	1	30,000
Office Coordinator	1	20,000
Filler Operator	2	30,000
Supervisors	1	25,000
Boiler Operators	1	30,000
Cold Store Operator	2	30,000
Mechanic/ Fitter	2	25,000
Electrician	1	25,000
Weigh Bridge Operator	1	18,000
Driver	1	20,000
Lifter Operator	2	20,000
Office Boy	3	15,000
Gardner	1	15,000
Sweeper	2	15,000
Guards	2	15,000
Total	45	

Salaries of all employees are estimated to increase at 10% annually.

9.10 Revenue Generation

Following table provide assumption for revenues and generation of the proposed software house during first year of operation:

Table 11: Revenue Generation - Year 1

Product Description	Production Quantity Sold (Tons)	Sales Price (Rs. / Ton)	Revenue (Rs.)
Tomato Paste	768	139,750	107,328,000
Mango Pulping	4,032	123,625	498,456,000
Guava Pulping	3,360	75,250	252,840,000
Total Sales Revenue	8,160		858,624,000

9.11 Other Costs

An essential cost to be borne by the project is the cost of gas and electricity. The direct gas and direct electricity expenses are estimated to be around Rs. 17.14 million and Rs. 74.05 million, respectively, in year one with 10% increase in subsequent years. Furthermore, promotional expenses are estimated as 0.25% of revenue and communication expenses of Rs. 1.92 million per annum.

10 CONTACT DETAILS

10.1 Machinery and Equipment Suppliers

Name	Address	Phone	Email/Website
Shanghai Jump Machinery and Company Limited	No.986 Hejing Road, Jiading District, Shanghai, P.R China	0086-21-59571328	www.sinojump.com
Faheem baig	Shahra-e-Faisal Karachi-75530	0092-21-35660920-22	faheem@helperco.com.pk
Helperco (Pvt) Limited Lahore	Room # 3, 3rd Floor Al-Hafeez Towe	0092-42-35785395-96	www.helpercopvtltd.com.pk
Bertuzzi Food Processing	21052 Busto-Varese-Italy	+390331356299	www.bertuzzi.it
Jaffer Brothers Pvt. Ltd.	3, Mall mansion, 30-Shahrah-e-Quaid-e-Azem Lahore	+92-42-37320186	
SigmaTech Imports	1-Mozang road, Behind High Court Lahore	+92-51-2803154	
S.T Associates	Office No. 10,2 nd floor, Mujahid Plaza, Blue Area Islamabad	0321-5155764	
Afga Tech	C-10,Ground Floor, Ruqia square, Block No. 14, Feral Area, Karachi	+92-300-8299892	
Kold Kraft	247-S Industrial Estate KotLakhat, Lahore	+92-42-35116727-28	
Al-Aziz Enterprises	10-km, Lahore Road Sargodha	+92-300-9606642	

11 USEFUL LINKS

Small & Medium Enterprises Development Authority (SMEDA)	www.smeda.org.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 Pakhtunkhwa	www.khyberpakhtunkhwa.gov.pk
Government of Balochistan	www.balochistan.gov.pk
Government of Gilgit Baltistan	www.gilgitbaltistan.gov.pk
Government of Azad Jamu Kashmir	www.ajk.gov.pk
Trade Development Authority of Pakistan (TDAP)	www.tdap.gov.pk
Security 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
Punjab Small Industries Corporation	www.psic.gop.pk
Sindh Small Industries Corporation	www.ssic.gos.pk
Pakistan Horticulture Development and Export Company (PHDEC)	www.phdec.org.pk
Punjab Vocational Training Council (PVTC)	www.pvtc.gop.pk
Technical Education and Vocational Training Authority (TEVTA)	www.tevta.org
Punjab Industrial Estates (PIE)	www.pie.com.pk
Faisalabad Industrial Estate Development and Management Company (FIEDMC)	www.fiedmc.com.pk
Ministry of National Food Security and Research (MNFSR)	www.mnsfr.gov.pk
Pakistan Agriculture Research Council (PARC)	www.parc.gov.pk
National Agriculture Research Council (NARC)	www.narc.gov.pk
Agriculture University of Faisalabad (UAF)	www.uaf.edu.pk

12 ANNEXURES

12.1 Income Statement

Calculations										
Income Statement										
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Revenue	858,624,000	985,986,560	1,125,541,581	1,278,293,652	1,445,324,023	1,627,796,181	1,826,961,831	2,044,167,294	2,166,817,331	2,296,826,371
Cost of sales										
Raw Material Cost of Mango Pulping	338,112,000	384,602,400	434,896,560	489,258,630	547,969,666	611,328,658	679,653,626	753,282,769	790,946,907	830,494,252
Raw Material Cost of Guava Pulping	185,760,000	211,302,000	238,933,800	268,800,525	301,056,588	335,866,256	373,404,249	413,856,376	434,549,195	456,276,655
Raw Material Cost of Tomato Paste	79,488,000	90,417,600	102,241,440	115,021,620	128,824,214	143,719,514	159,782,283	177,092,031	185,946,632	195,243,964
Labor Wages for Pulping	12,145,140	13,815,097	15,621,686	17,574,397	19,683,325	21,959,209	24,413,474	27,058,267	28,411,180	29,831,739
Production Labor	10,915,200	13,007,280	15,408,624	18,160,164	21,307,926	24,903,638	29,005,414	33,678,508	37,046,359	40,750,995
Machinery & Generator Maintenance	1,000,000	1,100,000	1,210,000	1,331,000	1,464,100	1,610,510	1,771,561	1,948,717	2,143,589	2,357,948
Electricity Cost	19,216,800	22,900,020	27,127,716	31,971,951	37,513,756	43,844,202	51,065,600	59,292,836	65,222,119	71,744,331
Gas Cost	17,136,000	20,420,400	24,190,320	28,510,020	33,451,757	39,096,741	45,536,204	52,872,592	58,159,852	63,975,837
Fuel Cost	54,835,200	65,345,280	77,409,024	91,232,064	107,045,622	125,109,570	145,715,853	169,192,296	186,111,525	204,722,678
Total cost of sales	718,608,340	822,910,077	937,039,170	1,061,860,371	1,198,316,953	1,347,438,299	1,510,348,264	1,688,274,392	1,788,537,359	1,895,398,399
Gross Profit	140,015,660	163,076,483	188,502,410	216,433,281	247,007,070	280,357,882	316,613,567	355,892,902	378,279,972	401,427,972
General administration & selling expenses										
Administration expense	10,080,000	11,088,000	12,196,800	13,416,480	14,758,128	16,233,941	17,857,335	19,643,068	21,607,375	23,768,113
Administration benefits expense	504,000	554,400	609,840	670,824	737,906	811,697	892,867	982,153	1,080,369	1,188,406
Utilities (Electricity, Gas, Water etc)	960,840	1,145,001	1,356,386	1,598,598	1,875,688	2,192,210	2,553,280	2,964,642	3,261,106	3,587,217
Travelling expense	1,438,200	1,582,020	1,740,222	1,914,244	2,105,669	2,316,235	2,547,859	2,802,645	3,082,909	3,391,200
Communications expense (phone, fax, mail, internet, etc.)	1,917,600	2,109,360	2,320,296	2,552,326	2,807,558	3,088,314	3,397,145	3,736,860	4,110,546	4,521,600
Office vehicles running expense	225,000	247,500	272,250	299,475	329,423	362,365	398,601	438,461	482,307	530,538
Office expenses (stationary, entertainment, janitorial services, etc.)	1,917,600	2,109,360	2,320,296	2,552,326	2,807,558	3,088,314	3,397,145	3,736,860	4,110,546	4,521,600
Promotional expense	2,146,560	1,931,904	1,738,714	1,564,842	1,408,358	1,267,522	1,140,770	1,026,693	924,024	831,621
Insurance expense	1,829,272	1,643,241	1,457,209	1,271,177	1,085,146	949,111	759,289	569,466	379,644	189,822
Professional fees (legal, audit, consultants, etc.)	575,280	632,808	696,089	765,698	842,267	926,494	1,019,144	1,121,058	1,233,164	1,356,480
Depreciation expense	36,417,497	39,428,050	39,428,050	39,507,257	39,507,257	39,633,608	39,725,300	39,725,300	39,725,300	39,831,444
Amortization of pre-operating costs	4,798,000	4,798,000	4,798,000	4,798,000	4,798,000	-	-	-	-	-
Amortization of Contingency Cost	-	-	-	-	-	-	-	-	-	-
Miscellaneous expense	1,917,600	2,109,360	2,320,296	2,552,326	2,807,558	3,088,314	3,397,145	3,736,860	4,110,546	4,521,600
Subtotal	64,727,450	69,379,004	71,254,447	73,463,572	75,870,516	73,958,125	77,085,880	80,484,067	84,107,836	88,239,643
Operating Income	75,288,210	93,697,479	117,247,963	142,969,710	171,136,554	206,399,757	239,527,688	275,408,835	294,172,137	313,188,330
Gain / (loss) on sale of office vehicles	-	-	-	-	413,920	-	-	-	-	-
Earnings Before Interest & Taxes	75,288,210	93,697,479	118,152,463	142,969,710	171,550,474	207,899,078	239,527,688	275,408,835	296,133,914	313,188,330
Subtotal	3,418,905	26,204,576	19,879,898	12,753,093	4,722,430	-	-	-	-	-
Earnings Before Tax	71,869,306	67,492,903	98,272,565	130,216,617	166,828,044	207,899,078	239,527,688	275,408,835	296,133,914	313,188,330
Tax	24,373,756	22,842,015	33,614,897	44,795,315	57,609,315	71,984,177	83,054,190	95,612,592	102,866,369	108,835,415
NET PROFIT/(LOSS) AFTER TAX	47,495,549	44,650,888	64,657,668	85,421,302	109,218,730	135,914,902	156,473,498	179,796,244	193,267,545	204,352,915

12.2 Balance Sheet

Calculations											SMEDA
Balance Sheet											
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Assets											
Current assets											
Cash & Bank	23,126,715	931,611	41,035,997	91,827,355	163,565,949	255,501,035	447,075,569	663,234,721	919,808,552	1,190,603,428	1,871,187,718
Accounts receivable		105,857,753.42	113,708,870	130,162,694	148,181,624	167,894,240	189,438,917	212,964,535	238,631,247	259,581,244	275,156,119
Equipment spare part inventory	3,000,000	3,150,000	3,307,500	3,472,875	3,646,519	3,828,845	4,020,287	4,221,301	4,432,366	4,653,985	-
Raw material inventory	60,336,000	75,495,420	93,904,688	116,207,051	143,167,087	175,692,860	214,862,032	261,952,628	302,555,285	349,451,354	-
Pre-paid insurance	1,829,272	1,643,241	1,457,209	1,271,177	1,085,146	949,111	759,289	569,466	379,644	189,822	-
Total Current Assets	88,291,988	187,078,025	253,414,263	342,941,152	459,646,325	603,866,090	856,156,094	1,142,942,651	1,465,807,095	1,804,479,833	2,146,343,837
Fixed assets											
Land	15,000,000	15,000,000	15,000,000	15,000,000	15,000,000	15,000,000	15,000,000	15,000,000	15,000,000	15,000,000	15,000,000
Building/Infrastructure	57,337,088	54,470,233	51,603,379	48,736,524	45,869,670	43,002,816	40,135,961	37,269,107	34,402,253	31,535,398	28,668,544
Machinery & equipment	326,950,580	321,350,499	285,644,888	249,939,277	214,233,666	178,528,055	142,822,444	107,116,833	71,411,222	35,705,611	-
Furniture & fixtures	1,461,250	1,315,125	1,169,000	1,022,875	876,750	730,625	584,500	438,375	292,250	146,125	-
Office vehicles	1,034,800	827,840	620,880	413,920	206,960	1,666,556	1,333,245	999,933	666,622	333,311	-
Office equipment	1,507,500	1,005,000	502,500	1,745,120	1,163,413	581,707	2,020,194	1,346,796	673,398	2,338,627	1,559,085
Total Fixed Assets	403,291,218	393,968,697	354,540,646	316,857,716	277,350,459	239,509,758	201,896,344	162,171,044	122,445,745	85,059,073	45,227,629
Intangible assets											
Pre-operation costs	23,990,000	19,192,000	14,394,000	9,596,000	4,798,000	-	-	-	-	-	-
Legal, licensing, & training costs	-	-	-	-	-	-	-	-	-	-	-
Total Intangible Assets	23,990,000	19,192,000	14,394,000	9,596,000	4,798,000	-	-	-	-	-	-
TOTAL ASSETS	515,573,205	600,238,722	622,348,910	669,394,868	741,794,784	843,375,848	1,058,052,438	1,305,113,696	1,588,252,840	1,889,538,906	2,191,571,465
Liabilities & Shareholders' Equity											
Current liabilities											
Accounts payable		29,847,228	34,333,832	39,301,223	44,805,324	50,909,810	57,687,321	65,220,892	72,951,200	78,103,352	66,947,582
Total Current Liabilities	-	29,847,228	34,333,832	39,301,223	44,805,324	50,909,810	57,687,321	65,220,892	72,951,200	78,103,352	66,947,582
Other liabilities											
Deferred tax		24,373,756	47,215,772	80,830,669	125,625,984	183,235,299	255,219,476	338,273,666	433,886,257	536,752,627	645,588,041
Total Long Term Liabilities	257,786,603	265,109,342	238,082,038	215,502,937	196,977,450	183,235,299	255,219,476	338,273,666	433,886,257	536,752,627	645,588,041
Shareholders' equity											
Paid-up capital	257,786,603	257,786,603	257,786,603	257,786,603	257,786,603	257,786,603	257,786,603	257,786,603	257,786,603	257,786,603	257,786,603
Retained earnings		47,495,549	92,146,437	156,804,105	242,225,407	351,444,137	487,359,038	643,832,536	823,628,780	1,016,896,324	1,221,249,239
Total Equity	257,786,603	305,282,152	349,933,040	414,590,708	500,012,010	609,230,739	745,145,641	901,619,138	1,081,415,382	1,274,682,927	1,479,035,842
TOTAL CAPITAL AND LIABILITIES	515,573,205	600,238,722	622,348,910	669,394,868	741,794,784	843,375,848	1,058,052,438	1,305,113,696	1,588,252,840	1,889,538,906	2,191,571,465

12.3 Cash Flow Statement

Calculations											SMEDA
Cash Flow Statement											
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
<i>Operating activities</i>											
Net profit		47,495,549	44,650,888	64,657,668	85,421,302	109,218,730	135,914,902	156,473,498	179,796,244	193,267,545	204,352,915
Add: depreciation expense		36,417,497	39,428,050	39,428,050	39,507,257	39,507,257	39,633,608	39,725,300	39,725,300	39,725,300	39,831,444
amortization of pre-operating costs		4,798,000	4,798,000	4,798,000	4,798,000	4,798,000	-	-	-	-	-
amortization of training costs		-	-	-	-	-	-	-	-	-	-
Deferred income tax		24,373,756	22,842,015	33,614,897	44,795,315	57,609,315	71,984,177	83,054,190	95,612,592	102,866,369	108,835,415
Accounts receivable		(105,857,753)	(7,851,117)	(16,453,823)	(18,018,930)	(19,712,616)	(21,544,676)	(23,525,618)	(25,666,712)	(20,949,997)	(15,574,875)
Equipment inventory	(3,000,000)	(150,000)	(157,500)	(165,375)	(173,644)	(182,326)	(191,442)	(201,014)	(211,065)	(221,618)	4,653,985
Raw material inventory	(60,336,000)	(15,159,420)	(18,409,268)	(22,302,363)	(26,960,036)	(32,525,773)	(39,169,173)	(47,090,595)	(40,602,657)	(46,896,069)	349,451,354
Advance insurance premium	(1,829,272)	186,032	186,032	186,032	186,032	136,035	189,822	189,822	189,822	189,822	189,822
Accounts payable		29,847,228	4,486,604	4,967,390	5,504,102	6,104,486	6,777,511	7,533,570	7,730,309	5,152,152	(11,155,770)
Cash provided by operations	(65,165,272)	21,950,890	89,973,705	108,730,476	135,059,397	164,953,107	193,594,728	216,159,152	256,573,831	273,133,504	680,584,290
<i>Financing activities</i>											
Issuance of shares	257,786,603	-	-	-	-	-	-	-	-	-	-
Purchase of (treasury) shares											
Cash provided by / (used for) financing activities	515,573,205	(44,145,994)	(49,869,319)	(56,193,997)	(63,320,803)	(71,351,466)	-	-	-	-	-
<i>Investing activities</i>											
Capital expenditure	(427,281,218)	-	-	(1,745,120)	-	(1,666,556)	(2,020,194)	-	-	(2,338,627)	-
Acquisitions											
Cash (used for) / provided by investing activities	(427,281,218)	-	-	(1,745,120)	-	(1,666,556)	(2,020,194)	-	-	(2,338,627)	-
NET CASH	23,126,715	(22,195,104)	40,104,385	50,791,358	71,738,594	91,935,086	191,574,534	216,159,152	256,573,831	270,794,877	680,584,290

13 KEY ASSUMPTION

13.1 Operating Cost Assumptions

Description	Detail
Input Capacity Tons / hour	10
Working hours per day	16
Days operational per year	150

13.2 Production Cost Assumptions

Description	Detail (Rs. / Ton)		
	Tomato	Guava	Mango
Purchase Price	15,000	20,000	40,000
Cost of Aseptic Bag	7,000	7,000	7,000
Chemical + Polythene Bag	1,500	1,500	1,500
Cost of Metal Drum	17,500	17,500	17,500
Cost of Ripening and Unloading of Fruit	500	500	500

13.3 Revenue Assumptions

Description	Products		
	Tomato	Guava	Mango
Starting capacity utilization	60%	60%	60%
Total Input Capacity	6,400	8,000	9,600
Yield	20%	70%	70%
Total Output Capacity	1,280	5,600	6,720
Processing/ pulping per annum in year 1	768	3,360	4,032

13.4 Financial Assumptions

Description	Detail
Debt : Equity	50% : 50%
Debt Tenure	5 Years
Interest rate	12%
Debt Payments per year	12