
Pre-Feasibility Study

KINNOW PROCESSING UNIT



Small and Medium Enterprises Development Authority
Ministry of Industries & Production
Government of Pakistan
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1 DISCLAIMER

This information memorandum is to introduce the subject matter and provide a general idea and information on the said matter. 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 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 EXECUTIVE SUMMARY

Pakistani Kinnows have huge demand across the globe especially in Middle East and Europe due to its taste, quality and aroma. But due to lack of processing facilities in the country, Pakistan's share in international market is quite low. This particular pre-feasibility provides basic information for setting up a medium sized Kinnow Processing Facility for post-harvest treatment of Kinnows as per international standards.

The proposed processing unit comprises of semi-automatic grading, washing, waxing and packing machines with an installed capacity to process 10,800 metric tons of Kinnows per year. The unit will operate with 60% operational efficiency in first year with maximum capacity utilization of 95%. The plant is assumed to work out on seasonal basis (i.e. 135 days per year). This production capacity is estimated to be economically viable and justifies the high project investment. However, complete adherence to best agronomic practices is critical to the success of this project. As per proposed business model, fresh kinnows will be purchased from the local market and after processing will primarily be sold in international as well as local market.

The estimated cost of the project is Rs. 129.49 million out of which Rs. 101.04 million would be capital investment and remaining Rs. 28.44 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. 173.11 million, with an IRR of 43% and payback period of 2.75 years. The project will provide employment opportunities to 113 people (105 seasonal employees and 08 permanent staff). The legal business 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 '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 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 **Kinnow Processing** 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 good quality and various variety of kinnows. Unfortunately, production of kinnows in Pakistan has often not been accompanied by better post-harvest management and appropriate modernization of the processing techniques. It has been observed that in order to enter into the international markets with longer shelf life, good quality of kinnows will require modern processing facilities.

During recent years the processing of fresh fruits as a commercially viable business has gained popularity among the investors in Pakistan. However, there is still a great demand of initiating fruits processing business with introduction of modern processing techniques, especially kinnows that have huge demand in the international market due to rich flavor and aroma.

This particular pre-feasibility provides the basic information about establishing a medium sized kinnow processing unit for both local and international markets. According to the proposed business model, fresh fruits will be purchased from local markets, directly from farmers or distributors, which will be processed and sold both in local and international markets. The major scope of processing activities will include post-harvest handling, pre-

cooling, grading, packing and logistics. It is assumed that 25% of the processed kinnows will be sold in the local market whereas rest of 75% will be sold to the exporters for international markets.

5.1 Process Flow of Services

The process flow of Kinnow processing mainly entails the following sequence of activities:



5.2 Installed & Operational Capacities

The proposed Kinnow Processing Unit has a maximum capacity of processing 10,800 tons of kinnows annually. As the processing of kinnow is seasonal, therefore the proposed unit will be operational on seasonal basis. Capacity utilization during first year of operation is assumed at 60%, which means 6,480 tons of kinnows will be processed.

Following table depicts the installed an operational capacity of the proposed unit:

Table 1: Installed and Operational Capacity

Description	Product Mix	Total Installed Capacity (Metric Ton)	Processing @ 60% - Year 1 (Metric Ton)
Export Quality Kinnows (ASEAN Countries)	56.25%	6,075	3,645
Export Quality Kinnows (Central Asian Countries)	18.75%	2,025	1,215
Local Quality Kinnows (Local Sale)	25.00%	2,700	1,620

Total	100.00%	10,800	6,480
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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.
- ⇒ 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 staff should be engaged and comprehensive staff training programs to be adopted for capacity building.
- ⇒ Processing contract with farmers and traders for contractual business orders.
- ⇒ Careful selection of good location and purchase of land at competitive price.
- ⇒ Effective marketing and distribution of the product particularly to the exporters and super store buyers.

7 GEOGRAPHICAL POTENTIAL FOR INVESTMENT

As per the current agricultural practices, the main orchards of kinnows are in Sargodha, Multan, Sahiwal, Bahawalpur and in few parts of Sindh. Most of the Kinnow Orchards are located in Sargodha and its adjoining areas. Therefore it is most appropriate to install a Kinnow processing unit in these areas.

8 POTENTIAL TARGET MARKETS

In export market, Pakistani Kinnows have huge demand in Middle Eastern countries, Iran, Bangladesh, Eastern Europe, Russia and Ukraine while Indonesia and Malaysia have recently emerged as strong buyers of local Kinnows on account of its flavour and unmatched taste. The target market chosen for this particular pre-feasibility is the Central Asian and ASEAN countries.

The potential local target market for the processed fresh fruits will be the general public of upper-middle income group of urban cities, who generally prefer to buy the fresh fruits

and vegetables from super markets and big departmental stores. Considering to that, major cities for instance Karachi, Lahore, Peshawar, Quetta, Rawalpindi, Islamabad, Multan, Sialkot, Faisalabad, Hyderabad and etc. with large urban base would be the potential local target markets for the proposed business.

9 PROJECT COST SUMMARY

A detailed financial model has been developed to analyse the commercial viability of Kinnow Processing 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 estimated sales of Rs. 351.91 million in the year one. The capacity utilization during year one is worked out at 60% with 5% increase in subsequent years up to the maximum capacity utilization of 95%.

The following table shows internal rate of return, payback period and net present value of the proposed venture:

Table 2: Project Economics

Description	Detail
Internal Rate of Return (IRR)	43%
Payback Period (Years)	2.75
Net Present Value (NPV)	Rs. 173,114,000

9.2 Project Financing

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

Table 3: Project Financing

Description	Detail
Equity 50%	Rs. 64,744,730
Debt 50%	Rs. 64,744,730
Annual Mark-up to Borrower	12%
Tenure of 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 Investment	Amount (Rs.)
Land	5,000,000
Building/Infrastructure	45,044,000
Machinery & equipment	48,135,000
Furniture & fixtures	389,000
Office equipment	137,500
Pre-operating costs	2,339,034
Total Capital Costs	101,044,534
Working Capital	
Equipment spare part inventory	166,667
Raw material inventory	24,133,875
Upfront insurance payment	2,406,750
Cash	1,737,633
Total Working Capital	28,444,925
Total Project Cost	129,489,460

9.4 Machinery and Equipment Requirement

Following machinery and equipment is required for establishing a Kinnow processing unit:

Table 5: Machinery and Equipment

Description	Quantity	Cost per Unit (Rs.)	Total Cost (Rs.)
Washing, Waxing & Grading Unit	1	7,000,000	7,000,000
Carriage Cost of Plant	1	125,000	125,000
Govt. Taxes and Duties on Plant			1,610,000
Cold Store (11,000 Cartons)	1	35,000,000	35,000,000
Generator 25 KVA	1	700,000	700,000
Plastic Crates	6,000	500	3,000,000
Power Factor Panel	1	300,000	300,000
Transformer 25 kVA	1	400,000	400,000

Total Machinery & Equipment			48,135,000
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9.5 Office Equipment Requirement

Following tables provides list of office equipment required for setting-up Kinnow processing unit:

Table 6: Office Equipment

Description	Quantity	Cost per Unit (Rs.)	Total Cost (Rs.)
Computers	2	50,000	100,000
Computer printer (s)	1	15,000	15,000
Telephones	3	2,500	7,500
Fax machines	1	15,000	15,000
Total Office Equipment			137,500

9.6 Furniture and Fixture Requirements

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

Table 7: Furniture and Fixture Required

Description	Quantity	Cost per Unit (Rs.)	Total Cost (Rs.)
Office Chairs	6	7,500	45,000
Office Tables	3	20,000	60,000
File Cabinets	4	20,000	80,000
Fans	6	4,000	24,000
Energy Savers	100	400	40,000
Air conditioners (1.5 ton split)	2	70,000	140,000
Total Furniture & Fixtures			389,000

9.7 Space Requirement

The proposed Kinnow processing unit will be constructed on purchased land. In this regard 08 Kanal of land will be acquired at a price of Rs. 5 million. The space requirement has been calculated on the basis of required management office, production hall, cold storage facility and other allied buildings. Following table provides detail of space requirement:

Table 8: Civil Works Requirement

Description	Required Area (Sq. ft.)	Construction Cost (Rs. / Sq.ft.)	Total Cost (Rs.)
Management Office	300	2,500	750,000
Production Hall	20,000	1,500	30,000,000
Cold Store Building	3,000	2,000	6,000,000
Store cum Generator Room	100	1,500	150,000
Labor Living Room	1,140	1,500	1,710,000
Toilets	120	2,500	300,000
Ground	11,340	100	1,134,000
Boundary Wall (rn.ft.)	4,000	1,250	5,000,000
Total Infrastructure			45,044,000

9.8 Raw Material Requirement

Fresh Kinnows are the main raw material for the proposed business, which will be procured either directly from fruit farms or from distributors of local fruit mandi. After that, Kinnows will be processed and marketed through distributors and retailers in local market and through exporters in international market.

Apart from Fresh Kinnows, Wax Polish and Packing are the major raw material required for proposed processing unit. Cost of the raw material required is given in annexure.

9.9 Human Resource Requirement

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

Table 9: Human Resource Requirement

Description	Number of Employees	Salary per Employee per Month (Rs.)
CEO	1	100,000
Processing Plant Operator*	1	40,000
Helper*	4	20,000
Packers*	45	20,000
Supervisor*	1	25,000
Purchaser*	3	25,000
Labor for Lifting Cartons*	20	15,000
Labor for Unloading*	10	15,000

Labor for Loading*	10	15,000
Sorters*	8	20,000
Stickerers*	3	15,000
Accounts officer	1	25,000
Security Guards	2	16,000
Marketing & Sales Officers	4	20,000
Total	113	

* The staff will be hired on seasonal basis.

The CEO will focus on export marketing, monitoring products along with overall management of the unit. Whereas, business operations and other responsibilities will be managed by respective project staffs. Salaries of all employees are estimated to increase at 10% annually.

9.10 Other Costs

An essential cost to be borne by the project is the cost of electricity. The electricity expenses are estimated to be around Rs. 0.66 million in year 1. Furthermore, promotional expense, being essential for marketing of Kinnow Processing Unit, is estimated as Rs. 1.00 million in year 1.

9.11 Revenue Generation

Following table provide assumption for revenues and generation of the proposed Kinnow processing unit during first year of operations:

Table 10: Revenue Generation in First Year

Description	Sales Price (Rs. / Ton)	Quantity Sold (Tons)	Sales Revenue (Rs.)
Export Quality Kinnows (ASEAN Countries)	72,000	3,645	262,440,000
Export Quality Kinnows (Central Asian Countries)	48,000	1,215	58,320,000
Local Quality Kinnows (Local Sale)	19,231	1,620	31,153,846
Total		6,480	351,913,846

10 CONTACT DETAILS

10.1 Machinery Suppliers

Name	Address	Phone
M/s Al-Aziz Enterprise	10-Km, Lahore Road Sargodha	0300-8602968
M/s Zalazar Engineering Works	Opposite Commerce College, Bhalwal	0312-7053004

10.2 Raw Material Suppliers

Name	Address	Contact
M/s Al-Aziz Enterprise	10-Km, Lahore Road Sargodha	0300-8602968
M/s Roshan Packages	325 G-3, M.A Johar Town Lahore	042-35290734 info@rosahnpackages.com.pk
M/s Zahid Packages	6-Km, Kot Momin Bhalwal Road, Bhalwal	0300-4100519

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 (PVTTC)	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										SMEDA
Income Statement										
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Revenue	351,913,846	404,114,400	461,312,130	523,918,777	592,377,497	663,690,916	748,794,775	837,818,154	888,087,243	941,372,478
<i>Cost of sales</i>										
Raw Kinnow Cost	170,100,000	193,488,750	218,791,125	246,140,016	275,676,818	307,551,950	341,925,403	378,967,321	397,915,687	417,811,472
Wax Polish Cost	4,374,000	4,975,425	5,626,058	6,329,315	7,088,832	7,908,479	8,792,367	9,744,874	10,232,118	10,743,724
Packaging Cost	68,040,000	77,395,500	87,516,450	98,456,006	110,270,727	123,020,780	136,770,161	151,586,929	159,166,275	167,124,589
Container Charges	44,460,000	50,573,250	57,186,675	64,335,009	72,055,211	80,386,594	89,370,978	99,052,834	104,005,476	109,205,750
Truck Rental & Fuel Cost	2,632,500	2,994,469	3,386,053	3,809,310	4,266,427	4,759,733	5,291,703	5,864,970	6,158,219	6,466,130
Direct Labor	4,995,000	5,952,375	7,051,275	8,310,431	9,750,906	11,396,371	13,273,421	15,411,916	16,953,108	18,648,419
Machinery Maintenance	500,000	550,000	605,000	665,500	732,050	805,255	885,781	974,359	1,071,794	1,178,974
Direct Electricity	405,000	482,625	571,725	673,819	790,614	924,030	1,076,223	1,249,615	1,374,576	1,512,034
Direct Water	54,000	64,350	76,230	89,843	105,415	123,204	143,496	166,615	183,277	201,605
Total cost of sales	295,560,500	336,476,744	380,810,591	428,809,248	480,737,000	536,876,395	597,529,533	663,019,434	697,060,531	732,892,695
Gross Profit	56,353,346	67,637,656	80,501,540	95,109,529	111,640,497	126,814,521	151,265,242	174,798,720	191,026,712	208,479,783
<i>General administration & selling expenses</i>										
Administration expense	3,181,500	3,499,650	3,849,615	4,234,577	4,658,034	5,123,838	5,636,221	6,199,843	6,819,828	7,501,811
Administration benefits expense	95,445	104,990	115,488	127,037	139,741	153,715	169,087	185,995	204,595	225,054
Electricity expense	252,000	300,300	355,740	419,265	491,938	574,952	669,650	777,538	855,292	940,821
Travelling expense	31,815	34,997	38,496	42,346	46,580	51,238	56,362	61,998	68,198	75,018
Communications expense (phone, fax, mail, internet, etc.)	31,815	34,997	38,496	42,346	46,580	51,238	56,362	61,998	68,198	75,018
Office expenses (stationary, entertainment, janitorial services, etc.)	360,000	396,000	435,600	479,160	527,076	579,784	637,762	701,538	771,692	848,861
Promotional expense	1,000,000	900,000	810,000	729,000	656,100	590,490	531,441	478,297	430,467	387,420
Insurance expense	2,406,750	2,166,075	1,925,400	1,858,369	1,600,329	1,342,290	1,285,265	1,007,124	728,983	683,542
Professional fees (legal, audit, consultants, etc.)	500,000	550,000	605,000	665,500	732,050	805,255	885,781	974,359	1,071,794	1,178,974
Depreciation expense	7,150,433	7,150,433	7,150,433	7,504,945	7,504,945	7,504,945	7,915,337	7,915,337	7,915,337	8,390,417
Amortization of pre-operating costs	467,807	467,807	467,807	467,807	467,807	-	-	-	-	-
Bad debt expense	7,038,277	8,082,288	9,226,243	10,478,376	11,847,550	13,273,818	14,975,895	16,756,363	17,761,745	18,827,450
Subtotal	22,515,842	23,687,536	25,018,319	27,048,727	28,718,731	30,051,564	32,819,164	35,120,392	36,696,130	39,134,386
Operating Income	33,837,504	43,950,121	55,483,221	68,060,802	82,921,766	96,762,957	118,446,078	139,678,328	154,330,582	169,345,396
Gain / (loss) on sale of machinery & equipment	-	-	28,881,000	-	-	16,524,225	-	-	10,674,285	-
Gain / (loss) on sale of office equipment	-	-	82,500	-	-	136,754	-	-	178,935	-
Earnings Before Interest & Taxes	33,837,504	43,950,121	84,446,721	68,060,802	82,921,766	113,423,936	118,446,078	139,678,328	165,183,802	169,345,396
Interest on short term debt	181,634	-	-	-	-	-	-	-	-	-
Interest expense on long term debt (Project Loan)	5,640,464	4,645,444	3,524,230	2,260,818	837,174	-	-	-	-	-
Interest expense on long term debt (Working Capital Loan)	1,101,464	-	-	-	-	-	-	-	-	-
Subtotal	6,923,562	4,645,444	3,524,230	2,260,818	837,174	-	-	-	-	-
Earnings Before Tax	26,913,942	39,304,677	80,922,492	65,799,984	82,084,593	113,423,936	118,446,078	139,678,328	165,183,802	169,345,396
Tax	8,642,379	12,979,136	27,545,371	22,252,494	27,952,107	38,920,877	40,678,627	48,109,914	57,036,830	58,493,388
NET PROFIT/(LOSS) AFTER TAX	18,271,563	26,325,541	53,377,120	43,547,490	54,132,486	74,503,059	77,767,451	91,568,414	108,146,972	110,852,008

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											
<i>Current assets</i>											
Cash & Bank	1,737,633	-	30,738,435	97,669,235	151,295,012	218,549,364	323,677,110	436,966,108	573,629,631	729,865,929	990,678,473
Accounts receivable		28,924,426	31,069,654	35,565,474	40,488,941	45,875,189	51,619,250	58,047,357	65,203,271	70,927,619	75,183,276
Equipment spare part inventory	166,667	192,500	222,338	256,800	296,604	342,577	395,677	457,007	527,843	609,658	-
Raw material inventory	24,133,875	28,824,897	34,224,022	40,427,126	47,542,300	55,691,347	65,011,458	75,657,084	83,411,936	91,961,659	-
Pre-paid insurance	2,406,750	2,166,075	1,925,400	1,858,369	1,600,329	1,342,290	1,285,265	1,007,124	728,983	683,542	-
Total Current Assets	28,444,925	60,107,898	98,179,848	175,777,003	241,223,187	321,800,768	441,988,759	572,134,681	723,501,663	894,048,408	1,065,861,749
<i>Fixed assets</i>											
Land	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000
Building/Infrastructure	45,044,000	42,791,800	40,539,600	38,287,400	36,035,200	33,783,000	31,530,800	29,278,600	27,026,400	24,774,200	22,522,000
Machinery & equipment	48,135,000	43,321,500	38,508,000	37,167,375	32,006,588	26,845,800	25,705,299	20,142,483	14,579,667	13,670,835	7,642,621
Furniture & fixtures	389,000	350,100	311,200	272,300	233,400	194,500	155,600	116,700	77,800	38,900	-
Office equipment	137,500	91,667	45,833	159,173	106,116	53,058	184,263	122,842	61,421	213,308	142,205
Total Fixed Assets	98,705,500	91,555,067	84,404,634	80,886,249	73,381,303	65,876,358	62,575,963	54,660,626	46,745,288	43,697,243	35,306,826
<i>Intangible assets</i>											
Pre-operation costs	2,339,034	1,871,227	1,403,420	935,614	467,807	-	-	-	-	-	-
Total Intangible Assets	2,339,034	1,871,227	1,403,420	935,614	467,807	-	-	-	-	-	-
TOTAL ASSETS	129,489,460	153,534,192	183,987,902	257,598,866	315,072,297	387,677,126	504,564,722	626,795,306	770,246,952	937,745,651	1,101,168,575
Liabilities & Shareholders' Equity											
<i>Current liabilities</i>											
Accounts payable		16,766,416	19,188,537	21,838,858	24,737,567	27,906,709	31,370,369	35,154,875	38,928,192	41,243,089	35,320,617
Total Current Liabilities	-	19,198,868	19,188,537	21,838,858	24,737,567	27,906,709	31,370,369	35,154,875	38,928,192	41,243,089	35,320,617
<i>Other liabilities</i>											
Deferred tax		8,642,379	21,621,515	49,166,887	71,419,380	99,371,487	138,292,364	178,970,991	227,080,905	284,117,735	342,611,123
Long term debt (Project Loan)	50,522,267	42,676,652	33,836,016	23,874,167	12,648,905	-	-	-	-	-	-
Long term debt (Working Capital Loan)	14,222,463	-	-	-	-	-	-	-	-	-	-
Total Long Term Liabilities	64,744,730	51,319,031	55,457,532	73,041,054	84,068,286	99,371,487	138,292,364	178,970,991	227,080,905	284,117,735	342,611,123
<i>Shareholders' equity</i>											
Paid-up capital	64,744,730	64,744,730	64,744,730	64,744,730	64,744,730	64,744,730	64,744,730	64,744,730	64,744,730	64,744,730	64,744,730
Retained earnings		18,271,563	44,597,104	97,974,224	141,521,714	195,654,200	270,157,260	347,924,711	439,493,125	547,640,097	658,492,105
Total Equity	64,744,730	83,016,293	109,341,834	162,718,954	206,266,444	260,398,930	334,901,989	412,669,441	504,237,855	612,384,827	723,236,835
TOTAL CAPITAL AND LIABILITIES	129,489,460	153,534,192	183,987,902	257,598,866	315,072,297	387,677,126	504,564,722	626,795,306	770,246,952	937,745,651	1,101,168,575

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		18,271,563	26,325,541	53,377,120	43,547,490	54,132,486	74,503,059	77,767,451	91,568,414	108,146,972	110,852,008
Add: depreciation expense		7,150,433	7,150,433	7,150,433	7,504,945	7,504,945	7,504,945	7,915,337	7,915,337	7,915,337	8,390,417
amortization of pre-operating costs		467,807	467,807	467,807	467,807	467,807	-	-	-	-	-
Deferred income tax		8,642,379	12,979,136	27,545,371	22,252,494	27,952,107	38,920,877	40,678,627	48,109,914	57,036,830	58,493,388
Accounts receivable		(28,924,426)	(2,145,228)	(4,495,820)	(4,923,468)	(5,386,248)	(5,744,061)	(6,428,107)	(7,155,914)	(5,724,348)	(4,255,657)
Equipment inventory	(166,667)	(25,833)	(29,838)	(34,462)	(39,804)	(45,974)	(53,099)	(61,330)	(70,836)	(81,816)	609,658
Raw material inventory	(24,133,875)	(4,691,022)	(5,399,125)	(6,203,104)	(7,115,174)	(8,149,047)	(9,320,111)	(10,645,626)	(7,754,851)	(8,549,723)	91,961,659
Advance insurance premium	(2,406,750)	240,675	240,675	67,031	258,039	258,039	57,025	278,141	278,141	45,442	683,542
Accounts payable		16,766,416	2,422,121	2,650,321	2,898,709	3,169,142	3,463,660	3,784,506	3,773,317	2,314,897	(5,922,472)
Cash provided by operations	(26,707,292)	17,897,992	42,011,522	80,524,698	64,851,039	79,903,257	109,332,296	113,288,999	136,663,522	161,103,591	260,812,543
<i>Financing activities</i>											
Project Loan - principal repayment		(7,845,615)	(8,840,636)	(9,961,850)	(11,225,261)	(12,648,905)	-	-	-	-	-
Working Capital Loan - principal repayment		(14,222,463)	-	-	-	-	-	-	-	-	-
Additions to Project Loan	50,522,267	-	-	-	-	-	-	-	-	-	-
Additions to Working Capital Loan	14,222,463	-	-	-	-	-	-	-	-	-	-
Issuance of shares	64,744,730	-	-	-	-	-	-	-	-	-	-
Cash provided by / (used for) financing activities	129,489,460	(22,068,078)	(11,273,088)	(9,961,850)	(11,225,261)	(12,648,905)	-	-	-	-	-
<i>Investing activities</i>											
Capital expenditure	(101,044,534)	-	-	(3,632,048)	-	-	(4,204,550)	-	-	(4,867,292)	-
Acquisitions											
Cash (used for) / provided by investing activities	(101,044,534)	-	-	(3,632,048)	-	-	(4,204,550)	-	-	(4,867,292)	-
NET CASH	1,737,633	(4,170,085)	30,738,435	66,930,800	53,625,777	67,254,352	105,127,746	113,288,999	136,663,522	156,236,299	260,812,543

13 KEY ASSUMPTION

13.1 Operating Cost Assumptions

Description	Details
Administration Benefits Expense	3% of administration expense
Office Expenses (Stationery, Entertainment etc)	Rs. 30,000 per month
Promotional Expense	Rs. 1,000,000
Professional Fee	Rs. 500,000
Production Capacity (Tons / Hour)	8
Hours Operational Per Day	10
Days Operational Per Year	135
Depreciation Method	Straight Line depreciation
Depreciation Rate	10% on Machinery 33% on Office Equipment 10% on Furniture & Fixture
Inflation Growth Rate	10%
Electricity Price Growth Rate	10%
Salaries Growth Rate	10%

13.2 Revenue Assumptions

Description	Detail
Starting capacity utilization	60%
Annual Installed Capacity (Metric Ton)	10,800
Production in year 1 (Metric Ton)	6,480
Sale Price (Rs. / Metric Ton)	72,000 (ASEAN Countries)
	48,000 (Central Asian Countries)
	19,231 (Local Quality)

13.3 Raw Material Cost Assumption

Description	Detail
Raw Kinnow Cost	Rs. 26,250 per Metric Ton
Wax Polish Cost	Rs. 675 per Metric Ton
Packaging Cost	Rs. 10,500 per Metric Ton
Raw Material Cost Growth Rate	5%
Freight Cost Growth Rate	5%

Machinery Maintenance	Rs. 500,000
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13.4 Financial Assumptions

Description	Detail
Debt	50%
Equity	50%
Debt Tenure	5 Years
Interest rate	12%