



Feasibility study for meat Processing Plant

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Disclaimer

The information in this document is to provide a general idea to potential investors for the financial feasibility to establish a meat processing plant based on adequate practices. The information and data in the report has been gathered from reliable sources and due diligence has been taken to compile the document; however, it is based upon certain assumptions which may differ from case to case. The information may vary due to any change in any of the concerned factors and the actual results may differ from the information presented. UNIDO, its employees or consultants do not assume any liability for any financial or any other losses as a result of the study. The information presented does not reflect the position of UNIDO Secretariat or Japan International Cooperation Agency (JICA). The potential investor or user of this study is encouraged to take further professional and expert advice before taking any decision to act upon this information.

Measurement Table

1 US Dollar	160.38 Pakistani Rupees
1 Square Yard	9 Square foot
1 Ton	1000 kilograms
1 Hectare	2.47105 Acres
1 Kilo gram	1000 grams
1 Marla	272 square feet
1 Kanal	5440 square foot

ABBREVIATIONS

KP	Khyber Pakhtunkhwa
KPFSHFA	Khyber Pakhtunkhwa Food Safety and Halal Food Authority
UNIDO	United Nations industrial development organization
TBT	Technical barriers to trade
WTO	World Trade Organization
SPS	Sanitary and phytosanitary standards
SMEDA	Small and Medium Enterprises Development Authority
PKR.	Pakistan Rupee (Rs.)
kg	Kilogram
UAE	United Arab Emirates
KM	Kilometer
GST	Goods and services tax
US	United States
D.I Khan	Dera Ismail Khan
L&DD	Livestock & Dairy Development Department
SOP	Standard operating procedures
GHP	Good Hygiene Practices
GMP	Good Manufacturing Practices
HACCP	Hazard Analysis and Critical Control Point
PAFAID	The Project on Agri-Food and Agro-Industry Development Assistance in Pakistan
MNFSR	Ministry of National Food Security and Research
AQD	Animal Quarantine Department
FAO	Food and Agriculture Organization
WHO	World Health Organization

Executive summary

Livestock plays an important role in the economy of Khyber Pakhtunkhwa and the livelihoods of a large majority of rural population is dependent on the sector. Despite the abundant supply of livestock and poultry, the province has failed to reap the benefits of a growing demand for processed meat products. There province has very limited food safety compliant meat processing and value addition facilities. This is due to lack of knowledge and skills, infrastructure, finance as well as access to food safety services provided by governmental bodies or private sector.

The proposed feasibility study will calculate the economic viability of being able to operate a compliant meat processing plant, providing food safety compliant processed meat products. Supply of food safety compliant food product will help reduce food borne illnesses which also creates productivity loss and also enable the province to access the high-end markets nationally as well as the export market which has a huge potential.

The proposed meat processing plant will have the capacity to process 4 tons of meat per day and will operate 5 days a week as on Tuesday and Wednesday sale of meat is prohibited all over Pakistan. The products line will include chicken nuggets, beef burger patties, sausages and seekh kebab. The initial capacity of the plant will be 70% in year 1 and reaching the maximum capacity of 95% in year 5 based on increased demand and customer base. Meat will be processed in a food safety compliant manner with proper automated facilities for processing, packaging, cold storage, transportation etc. The processed products can be also exported after acquiring required national and international certifications.

The proposed plant requires a total investment of Rs.233 million which includes a capital cost of Rs.218.41 million and total working capital of Rs.14.58 million. Based on the calculations of this report the proposed plant will have a net profit of Rs.22.8 million in year 1 with a steady growth and net profit of Rs.76.16 million in year 5. The plant will provide employment to 50 people directly and additional jobs can be created if the capacity is increased. The proposed plant can be established in any of the major city in KP which has access to basic services like electricity, water and human resources.

1. Introduction

Livestock, particularly cattle value chain, serves as a primary income source to many households in Khyber Pakhtunkhwa (KP), providing 11 percent of the agricultural GDP. In addition to cattle, there is a large population of buffaloes, sheep, goats and camel along with poultry, horses and mules. According to the latest available statistics from KP Statistical Yearbook 2015-16, the increasing cattle population reached 6.06 million which counts around 15 percent of the total cattle population of (42.8 millions) of Pakistan. The provinces livestock resources exceed the local consumption and meat and meat products can be exported to other provinces as well as the international market without any food security issues. KP is also famous for its meat cuisine like chapli kebabs, seekh kebabs, tikkas which can serve as a gastronomic tourism in the country.

As per the district-wise data, there is sufficient supply of different types of livestock in Hazara district, in Swat valley as well as in Peshawar. Subsequently, D.I. Khan District has the largest cattle population with 411,432 with 832 slaughtered animals, Abbottabad 111,415 with 3,327 slaughtered animals, Swat 253,790 with 3,124 slaughtered animals, Peshawar 223,150 with 6,203 slaughtered animals from the year 2015-16.

In Pakistan meat is usually produced and consumed as fresh meat. In KP specifically there is very minimal value addition and meat processing. There are a few modern meat processing plants operating in Peshawar such as Euro food and farmers that are supplying value added and processed meat products to the domestic market. These processed meat products include sausages, kofta's, seekh kebab, chapli kebab, and burger patties etc. that are consumed widely in the local market as well as internationally.

In general, meat processing, value addition and importance of food safety has generally been neglected in the past, mainly also resulting from the lack of awareness on this vital domain. Overall, despite the abundant livestock resources, the province has failed to tap into the huge market for processed meat products. For these reasons, the purpose of the proposed meat processing plant would be to prove the economic viability of meat processing and value addition in a compliant, safe and hygienic manner. The processing plant will have a positive socio-economic impact not only on the local market economy but also on the health of the consumers.

Market analysis

There are currently three private meat processing plants operational in Peshawar district and little to no value addition happening in the other districts of KP. Meat processing plants in KP can be very beneficial in adding value to the huge livestock resources and serve as an import substituted product in case it is able to comply with the requirements and quality of buyers from high-end markets. Processed meat products are consumed in huge quantities throughout Pakistan and there is a high potential for halal meat products in the international market as well.

However, when it comes to national and international trade, locally processed meat products need to compete with large-scale producers, nationally in other provinces like Sindh and Punjab and Internationally with China, India, and Turkey, having modernized and well-equipped meat sectors. For this reason, the introduction of new technologies can further improve the economy of scale and in turn efficiency of the value chain.

1.1.1 Current challenges for investment

The main challenges for the proposed processing plant in KP include lack of human and financial resources. There is a lack of awareness with regards to the benefits of these processing technologies and techniques. Other challenges include lack of credit facilities and in some areas the security situation can also create risks for investors. Areas further away from major cities lack basic facilities such as like proper road networks, sewage, water and electricity. In addition to the investment related to the facility, additional investment might be required to establish adequate practices for the sector. The provincial government and community-based organizations should also play their role in promoting and facilitating any private sector investments from other provinces. With regard to the upgrade of their facilities, general lack to value addition and food safety services, such as coaching and training along with non-existence of vocational training on meat processing can further decrease the safety and the quality of the product.

1.1.2 Status of industrial processing

Currently, in KP there are only three to four small to medium size private meat processing companies operating in Peshawar and little to no processing and value addition is taking place in the other districts of KP. The major market share is captured by meat processors from the Punjab and Sindh provinces.

2. Methodology

This study is a result of a consultative process where UNIDO experts conducted discussions with various stakeholders in November and December 2019. An additional detailed analysis was also conducted on the cattle meat value chain and its related enabling environment. Further discussions and inputs were received on the project approach from stakeholders including KPFSHFA, Agriculture Department and academia. The outcome of the report will be shared with relevant departments and will be finalized in consultation with all stakeholders to ensure the credibility and reliability of the information.

3. Rationale for establishing the plant

This section will explain the economic, social and environmental viability of establishing meat processing plants in KP.

3.1 Economic Factors

Livestock farming is also a dominant occupation of the farming community, with more than 15 million animal heads inhabiting the province. The province has abundant livestock and dairy resources for local consumption as well as for export purposes. The provinces geo-strategic location, access to other provinces and demand of halal meat products globally and in neighboring Afghanistan as well as the Middle Eastern countries provides a huge potential for the halal processed meat sector. Meat value added products in a food safety compliant manner can be sold to high-end domestic market as well as exported internationally. Value added products can be sold at a higher margin which can also further improve the livelihood of actors involved in the value chain. For international export, the application of adequate product packaging, complying with technical barriers to trade (TBT) measures, and establishment of a traceability scheme will be required along with relevant phytosanitary certifications.

3.1.1 Government incentives for the sector

The Livestock & Dairy Development Department (L&DD) has multiple ongoing and new initiatives to enhance health and production of animals by developing effective vaccines against diseases, improving livestock breeding and establishing veterinaries. Ante- and post-mortem examinations are carried out by the inspectors of the L&DD at the registered slaughterhouses which might require additional support to comply with national and

international requirements. KPFSHFA plays an essential role in enforcing food safety and hygiene standards among food business operators by developing SOPs for the meat sector and organizing awareness campaigns. The Government has already commenced with the procurement of equipment for a meat laboratory and in addition to that started to organize the relevant actors in a platform. Overall spending by the government on infrastructure, water availability, energy and security will remove further bottle necks and expand the opportunity for business in the province.

3.1.2 Export potential

According to Harvard's atlas of economic complexity meat exports of Asian countries alone in 2017 was USD 119 billion with Pakistan's share only at USD 247 million. Export of specifically frozen beef from Pakistan was USD 39.4 million while neighboring India's exports were at USD 3.92 billion. Pakistan's exports of sausages or other value added meat products is insignificant. Despite the abundant livestock resources and huge demand for meat and halal meat products internationally, the potential is yet to be tapped. One of the main reasons for low export volume is the absence of food safety compliant and certified meat processing plants as per international standards. Slaughtering, storage, packaging, transportation and certifications services remain a huge issue when it comes to export of meat products. However, huge potentials still remain within Pakistan due to the population size of the country. Furthermore, if the required infrastructure is made available there is a huge market potential for meat products from Pakistan in Europe, North America, Middle East, Japan, China, Afghanistan and Malaysia.

3.2 Social Factors

KP's economy is heavily dependent on agriculture and livestock sectors with more than 15 million animal heads inhabiting the province. There is a large segment of the rural population whose livelihoods and dependent on meat value chain related activities. The usual household usually contains of one bread earner who is providing financial support to the entire family. The meat processing plant will improve livelihoods of the actors involved by enabling them to target the high-end markets. Consequently, women are the most vulnerable to poverty and discrimination due to their socio-economic situation and they can be hardly approached. The plant should make special arrangements to offer job opportunities especially to youth and women within the local cultural norms.

3.3 Environmental Factors

The processing plant will maintain the environmental safeguarding of its ecosystem, through sustaining the existing flora and fauna and not introducing any material or product that will affect or change them in a negative way. Additionally, the infrastructure and services that need to be developed and implemented will be planned in an environmental friendly way; where the introduction of proper waste management practices will be encouraged. The processing plant does not aim to upscale the current consumption of processed meat products rather improve the level of compliance, quality and hygiene and creating value addition.

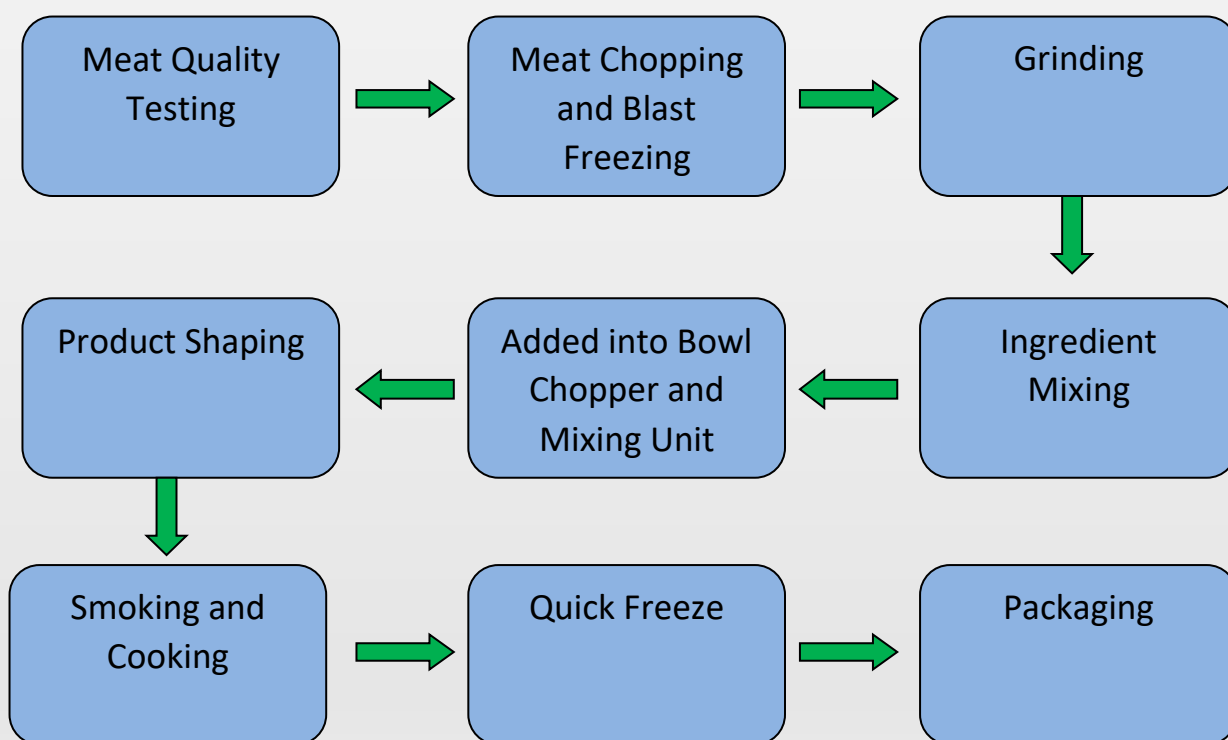
3.4 Impact of COVID-19 crisis on operation

Promoting adequate practices from food and labour safety aspect is essential to ensure business continuity and avoid potential disruption in value chains, leading to economic loss and food insecurity. For this reason, it is extremely important to follow the guidelines developed by FAO and WHO with the title COVID-19 and food safety: guidance for food businesses. As a first experience among industrialized nations, the implementation of adequate physical distancing among workers can lead to reduced output and lower capacity but on the other hand still ensures the safety and health of workers. This has to be strongly considered at this stage for the conduction of any feasibility study; however, as this pandemic shall be considered as a periodic challenge, the financial calculation of this feasibility study does not take into account. Overall, food business operators are strongly encouraged to apply the FAO/WHO guidance and also include them in their business continuity plan for mitigation of future risk.

4. Pre-Feasibility study for the plant

This section will outline the procedure, design and setup, quality control and additional factors required for the establishment of the meat processing plant.

4.1 Process flow chart of compliant meat processing unit



4.2 Additional factors

The location of the processing plant should be within proximity to the city and have access to basic facilities like water, electricity, proper road network as well as be accessible to

workers. It will also be important to identify skilled labor force and trainings of the personnel based on the capacity building framework planned to be developed as part of “The Project on Agri-Food and Agro-Industry Development Assistance in Pakistan” (PAFAID) initiative. Proper supply of quality animals, storage, packaging and transportation along with proper marketing techniques, establishing business networks and linkage to markets will ensure success of establishing the plant.

4.3 Design and setup of the plant

The location, physical layout, basic services, installations and equipment must be considered before establishing the meat processing plant. In addition, it is important to keep in mind that the infrastructure meets specific requirements for processing of meat intended for human consumption. The design must follow good hygienic practice (GHP) planned to be developed during “The Project for Agri-food and Agro-industry Development Assistance in Pakistan” (PAFAID) initiative.

The feasibility study does not take into consideration slaughtering of animals at the facility. In case slaughtering is done at the facility separate areas will be required for animal holding and slaughtering, following the relevant laws, standards and requirements. The plant must be equipped with proper areas for coolers and freezers, processing areas (smoking, cooking) and employee welfare areas. The floors must be of solid material and washable with proper drainage and disposal system. These requirements are obligatory in order to guarantee processing of meat in a food safety compliant manner.

4.4 Quality control

The processing plant shall follow and comply with the national or provincial technical regulations and/or with the requirements of relevant food safety certifications selected by the operator. The design and the setup of the processing plant has to follow the requirements of these standards and accordingly the provided design and setup showcases a best practice and adjustments have to be made depending on the capacity as well as the resources of the operator. The processing plant shall also have at least one personnel in place during the operation of the facility that can monitor food safety practices and introduce corrective actions when and where required on a constant basis.

5. Required Features for the establishment of the plant

The proposed meat processing plant will have the capacity to process 4 tons of meat per day as per requirements of food safety compliance. This section will identify the preferred and required features for the establishment of the meat processing plant.

5.1 Land and Infrastructure

The processing plant is to be established preferably in the industrial area with access to water, electricity, proper road network and human resources. The space requirement for the proposed meat processing plant is 46,008 square feet which will include open area, covered area for meat processing and offices, raw material storage, cold storage, washrooms, admin rooms and loading and unloading area including parking. The total land to be acquired for the unit is 12 kanal keeping in view future expansions of operations. The land is to be acquired for the plant at Rs. 5 million per kanal. This cost will vary in different areas and cities.

The cost of construction per square feet for open area is estimated at Rs. 600, meat processing and office space at Rs. 3500, cold storage at Rs. 3100 and the admin rooms at Rs.2100. The details of land are given in table 1.1 and space requirement and cost related to building and infrastructure are given in table 1.2.

Table 1.1

Description	Expected Area	Unit Cost in PKR	Total Cost in PKR
Land	12 Kanal	5,000,000	60,000,000

Table 1.2 Building & Infrastructure

No.	Description	Expected area (Square Feet)	Unit Cost in Pak Rupees	Estimated Cost in Pak Rupees
1	Open area meat processing facility	2500	600	1500000
2	Covered area meat processing plant	5440	3,500	19040000
3	Management building	2720	2600	7072000

4	Raw material Storage	2720	1700	4624000
5	Staff washrooms	544	2,000	1088000
6	Cold storage area	1632	3100	5059200
7	Pavement/driveway	5000	600	3000000
8	Cafeteria and parking area	1088	2100	2284800
9	Duty staff accommodation and admin rooms	1360	2100	2856000
10	Ground/Boundary wall	23004	120	2760480
Total Area		46008		49284480

5.2 Required resources for operationalization

This section will outline the required equipment, furniture and fixtures and office equipment required to set up the processing plant with price estimates. (Table 2.1, Table 2.2 and Table 2.3)

Table 2.1 Machinery/ Equipment for meat processing plant

No.	Machine	Quantity	Unit cost	Total Cost estimates
1	Automatic meat processing line including bowl chopper, mixing unit, vacuum filler, formic shape, smoke house and fryer	1	65,000,000	65,000,000
2	Cold storage	1	8,000,000	8,000,000
3	Packaging line	1	10,000,000	10,000,000
4	Refrigerated vehicle	2	5,600,000	11,200,000
5	Generators and solar system	2	250,000	500,000
6	Tube well for water supply	1	250,000	250,000
7	Miscellaneous	1	2,000,000	2,000,000
Total				96,950,000

The miscellaneous costs will be used to ensure that the floor, walls, ceilings in wet areas are smooth and easily cleanable, junctions where the walls meet the floor are properly sealed, ensure proper airflow and ventilation and construction of external effluent disposal system and solid waste disposal systems. The cost will also include working clothes including gloves, boots, hair covers and aprons.

Table 2.2 Furniture & Fixture

No	Description	Unit cost in Pak Rupees	Total cost in Pak Rupees
1	Furniture	1,000,000	1,000,000
2	Flooring (per square feet)	2,600	7,072,000
3	Electrical wire & lights	1,200,000	1,200,000
	Total		9,272,000

Table 2.3 Office Equipment

No	Description	Quantity needed	Unit cost in Pak Rupees	Total cost in Pak Rupees
1	Air Conditioner Inverter (1.5 ton)	8	80,000	640,000
2	Printers	2	22,000	44,000
3	Desktop Computers	4	65,000	260,000
4	Internet Service	1	30,000	30,000
5	Security Cameras	1	500,000	500,000
6	Telephone Exchange	1	240,000	240,000
7	Fax machine	1	45,000	45,000
8	Photocopier with scanner	1	150,000	150,000
	Total			1,909,000

5.3 Production Scope and Supply Chain

Proper supply chain will help maintain the quality of meat products produced. Production of food safety compliant meat products will not only be consumed locally but can also be exported to other countries. Increased population growth, increase in disposable incomes of middle to high income families, increased food safety awareness and increased penetration in newer smaller markets in peri-urban and rural areas have increased the demand for processed meat products. The processing plant will process and package up to 5 tons of meat per day.

5.4 Human Resources

To run the processing plant operations smoothly, details of required human resources along with number of employees and monthly salary are suggested as below: (Table 3.1)

No	Human Resource	No. of Employees	Expected Unit Salary (PKR) in Pak Rupees	Total salary in Pak rupees
01	Owner/Manager/CEO	1	173,000	173,000
02	Admin Officer	2	25,000	50,000
03	HR Manager	1	35,000	35,000
04	Cleaning Staff	5	18,000	90,000
05	Veterinary Doctor	1	70,000	70,000
06	Food Safety Expert	1	55,000	55,000
07	Food Technologist	2	50,000	100,000
08	Meat packers / processors	25	20,000	500,000
09	Marketing Manager	1	50,000	50,000
10	Marketing Assistants	3	25,000	75,000
11	Accounts Officer /Cashier	1	28,000	28,000
12	Security Guard	2	20,000	40,000
13	Drivers	2	18,000	36,000
14	Electrician	1	20,000	20,000
15	Sanitation Expert	1	35,000	35,000
16	Security Guard	1	30,000	30,000
Total		50		1,387,000

The processing plant will provide employment to 50 people directly; however, additional marketing and sales personnel, trainers and indirect employment will also be created depending on the capacity and operations of the processing plant. The management will be responsible for cleaning and disinfection on a regular basis and maintaining the hygienic standard.

5.5 Sensitivity indicators

a) Attracting small holders (≤ 10 animals)

Livestock is one of the major contributors in KP's agriculture sector and has a huge potential for growth due to natural resources and preference of meat by locally and internationally. Majority of the livestock farmers in the province are small holders with 5-10 animals. There is generally little knowledge among small holders on value addition

practices as well as these value addition and processing facilities require huge investments. The proposed plant will create increased demand for local livestock and through value addition will be able to access high end and export markets which will in turn also benefit the small holders. The facility will also connect the different actors involved in the value chain including farmers, slaughterhouse, wholesale dealers, superstores and exporters.

b) Suppliers

The livestock sector provides food of animal origin to population of more than 35.53 million people of which 82% are rural dwellers having great dependence on agriculture and livestock. The province produced 580.410 ton meat annually and majority farmers (>90%) in KP involved in livestock production are rearing animals as subsistence farming. They provide their animals to these slaughterhouses, butchers and processing plants to earn a living which can be improved by accessing local high end markets and the export market through increased demand. Despite abundant livestock resources and huge export potential very little value addition takes place in the province.

c) Price fluctuations

Packaged (frozen) meat product prices are not regulated by the local government until today. There might be some fluctuation in the price of raw material as prices of meat generally fall in winter season and increase during religious festivals like Eid. The price has to be set by the plant operator based on the cost of production and market rates.

d) Maintaining standards

Presently, food operators in KP are regulated by District government, L&DD and KPFSHFA. The meat processing facility needs to comply with standards set nationally and by following good hygiene practices (GHP) and HACCP in the future. Export market can be tapped into by conforming with the World Trade Organization's (WTO) Sanitary and Phytosanitary (SPS) measures, Halal requirements and ISO 22000.

e) Exchange rate fluctuation

The exchange rate of Pakistani rupee has been stable for the last few months after a volatile period of over six months after the present government took over. Pakistani rupee was devalued against dollar to reduce the current account deficit through reducing the balance of trade deficit.

The volatile exchange rate affects the business community more than everyone, because of the uncertainty it exhibits. Kandilov (2008) revealed that exchange rate volatility has large negative effect on the agricultural trade between countries. The effect is much larger for developing countries exporters than the developed countries' exporters. But in Pakistan it is

expected that after the downward adjust of Pakistan rupee against US dollar, the exchange rate will remain stable in near future and will be helpful to agricultural and livestock and food related exports.

6. Project Cost

Project Cost	
Description	Price (PKR)
Land	60,000,000
Building & Infrastructure	49,284,480
Machinery	96,950,000
Furniture and Fixtures	9,272,000
Office Equipment	1,909,000
Pre-operating costs (Licensing etc)	1,000,000
Total Capital Cost	218,415,480
Working Capital	
Raw Material Inventory	9,790,505
Upfront Insurance Payment	1,977,180.00
Cash	2,816,835
Total Working Capital	14,584,520
Total Project Cost	233,000,000

7. Financial Analysis

7.1 Projected Income Statement

Projected Income Statement					
	Year 1	Year 2	Year 3	Year 4	Year 5
	Amount in (PKR)				
Revenue	587,335,324	723,167,694	858,594,482	1,019,382,490	1,210,281,085
Cost of Goods Sold	505,391,036	617,713,106	729,530,715	862,083,499	1,019,234,032
Gross Profit	81,944,288	105,454,588	129,063,767	157,298,992	191,047,054
General administrative & selling expenses					
Administration Expense	5,873,353.24	7,231,676.94	8,585,944.82	10,193,824.90	12,102,810.85
Office Expense	587,335.32	723,167.69	858,594.48	1,019,382.49	1,210,281.09
Travelling Expense	293,667.66	361,583.85	429,297.24	509,691.25	605,140.54
Communication Expense	60,000	66,000	72,600	79,860	87,846
Salaries	16,644,000	18,308,400	20,139,240	22,153,164	24,368,480
Promotional Expense	17,620,059.72	21,695,030.81	25,757,834.46	30,581,474.71	36,308,432.56
Insurance Expense					

	1,977,180	1,779,462	1,581,744	1,384,026	1,186,308
Ammortization Expense	200,000	200,000	200,000	200,000	200,000
Professional fees	58,734	72,317	85,859	101,938	121,028
Depreciation Expense	6,046,548	6,046,548	6,046,548	6,046,548	6,046,548
Subtotal	49,360,877	56,484,186	63,757,662	72,269,910	82,236,876
Operating Income	32,583,410	48,970,402	65,306,105	85,029,082	108,810,178
Other income Gain / (loss) on sale of assets					
Earnings Before Interest & Taxes	32,583,410	48,970,402	65,306,105	85,029,082	108,810,178
Interest Expense					
Earnings Before Tax	32,583,410	48,970,402	65,306,105	85,029,082	108,810,178
Tax	9,775,023	14,691,121	19,591,831	25,508,725	32,643,053
NET PROFIT/(LOSS) AFTER TAX	22,808,387	34,279,281	45,714,273	59,520,357	76,167,125

7.2 Projected Balance Sheet

Projected Balance Sheet						
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Assets						
Current Assets						
Cash & Bank	2,816,835	23,924,510	68,485,811	124,142,562	192,448,882	277,691,601
Accounts Recievable	-	17,130,614	21,092,391	25,042,339	29,731,989	35,299,865
Raw material Inventory	9,790,505	11,623,961	13,800,767	16,385,221	19,453,663	21,399,029
Processed Meat Products Inventory	-	9,520,485	11,232,546	13,261,632	15,666,751	18,517,929
Pre-paid Insurance	1,977,180	1,779,462	1,581,744	1,384,026	1,186,308	988,590
Total Current Assets	14,584,520	63,979,032	116,193,259	180,215,780	258,487,593	353,897,014
Fixed Assets						
Land	60,000,000	60,000,000	60,000,000	60,000,000	60,000,000	60,000,000
Building & Infrastructure	49,284,480	44,356,032	39,427,584	34,499,136	29,570,688	24,642,240
Machinery	96,950,000	87,255,000	77,560,000	67,865,000	58,170,000	48,475,000
Office Equipment	1,909,000	1,718,100	1,527,200	1,336,300	1,145,400	954,500
Furniture & Fixtures	9,272,000	8,344,800	7,417,600	6,490,400	5,563,200	4,636,000
Total Fixed Assets	217,415,480	201,673,932	185,932,384	170,190,836	154,449,288	138,707,740

Intangible assets						
Pre-operation costs	1,000,000	800,000	600,000	400,000	200,000	0
Total Intangible Assets	1,000,000	800,000	600,000	400,000	200,000	0
Total Assets	233,000,000	266,452,964	302,725,643	350,806,616	413,136,881	492,604,754
Laibilities & Shareholders' Equity						
Current Liabilities						
Accounts Payable	-	10,644,577	12,637,975	15,004,674	17,814,582	21,115,330
Total Current Liabilities	-	10,644,577	12,637,975	15,004,674	17,814,582	21,115,330
Other Liabilities						
Deferred tax						
Long term debt						
Total Long Term Liabilities	-	-	-	-	-	-
Shareholders' Equity						
Paid-up capital	233,000,000	233,000,000	233,000,000	233,000,000	233,000,000	233,000,000
Retained Earnings		22,808,387	57,087,669	102,801,942	162,322,299	238,489,424
Total Equity	233,000,000	255,808,387	290,087,669	335,801,942	395,322,299	471,489,424
Total Capital & Liabilities	233,000,000	266,452,964	302,725,643	350,806,616	413,136,881	492,604,754

7.3 Projected Cash Flow Statement

Projected Cash Flow Statement						
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Operating activities						
Net profit	-	22,808,387	34,279,281	45,714,273	59,520,357	76,167,125
Add: depreciation expense	-	15,741,548	15,741,548	15,741,548	15,741,548	15,741,548
Amortization expesne	-	200,000	200,000	200,000	200,000	200,000
Accounts recievbale	-	(17,130,614)	(3,961,777)	(3,949,948)	(4,689,650)	(5,567,876)
Raw material inventory	(9,790,505)	(1,833,457)	(2,176,806)	(2,584,454)	(3,068,442)	(1,945,366)
Processed Meat Products Inventory	-	(9,520,485)	(1,712,061)	(2,029,085)	(2,405,119)	(2,851,178)
Advance insurance premium	(1,977,180)	197,718	197,718	197,718	197,718	197,718
Accounts payable	-	10,644,577	1,993,398	2,366,699	2,809,908	3,300,748
Cash provided by operations	(11,767,685)	21,107,675	44,561,301	55,656,751	68,306,320	85,242,719
Financing activities						
Change in long term debt						
Change in short term debt						
Issuance of shares	233,000,000					
Purchase of (treasury) shares						
Cash by financing activities	233,000,000	-	-	-	-	-

<i>Investing activities</i>						
Capital expenditure	(218,415,480)					
Acquisitions						
Cash by investing activities	(218,415,480)	-	-	-	-	-
Net Cash	2,816,835	21,107,675	44,561,301	55,656,751	68,306,320	85,242,719
Cash balance brought forward	2,816,835	2,816,835	23,924,510	68,485,811	124,142,562	192,448,882
Cash available for appropriation	2,816,835	23,924,510	68,485,811	124,142,562	192,448,882	277,691,601
Owner's Withdrawals						
Cash carried forward	2,816,835	23,924,510	68,485,811	124,142,562	192,448,882	277,691,601

8. Key assumptions

8.1 Project Capacity Assumptions

Production Capacity	
Description	Calculation
Maximum Capacity Daily (tons)	4
Working days in a week	5
Weeks in a year	52
Capacity Year 1	70%
Capacity Year 2	76%
Capacity Year 3	82%
Capacity Year 4	88%
Capacity Year 5	95%
Division of Production Capacity	
Chicken Nuggets (400 gram)	25%
Beef Seekh Kebab (540 gram)	25%
Beef Burger Patties (1000 gram)	25%
Beef Sausages (350 gram)	25%

8.2 Cost of Goods Sold Assumption

Cost of Goods Sold Assumptions	
Description	Calculation
Cost of Raw Material as percentage of selling price	70%
Cost of Meat as percentage of RM	50%
Cost of Additives as percentage of RM	5%
Cost of Plants & Labour as percentage of RM	45%
Wastage	2%
Transportation Cost (as percentage of total sales)	5.00%
Packaging cost per pack	
Chicken Nuggets (400 gram)	40
Beef Seekh Kebab (540 gram)	54

Beef Burger Patties (1000 gram)	100
Beef Sausages (350 gram)	35
Other Manufacturing Costs (annual basis):	
Electricity	19,000,000
Direct Water Cost	2,400,000

8.3 Revenue Assumptions

Revenue Assumptions	
Description	Calculation
Sale Price:	
Chicken Nuggets (400 gram)	205
Beef Seekh Kebab (540 gram)	665
Beef Burger Patties (1000 gram)	795
Beef Sausages (350 gram)	310
Sale Price Growth Rate/ Year	10%
Raw Material Inventory (in days)	5
Processed Products Inventory (in days)	5

8.4 Economic Assumptions

Economic Assumptions	
Description	Annual % increase
Electricity Price Growth Rate	10%
Water Price Growth Rate	10%
Salary Growth Rate	10%
Feed cost Growth Rate	10%
Packaging Cost Growth Rate	10%
Communications Cost Growth Rate	10%
Selling price growth rate	10%
Materials Cost Growth Rate	10%
Tax Rate	30%

8.5 Expense Assumptions

Expense Assumptions	
Administrative Expense (% of total revenue)	1%
Office Expense (% of administrative expense)	10%
Travelling Expense (% of administrative expense)	5%
Salaries	16,644,000
Telephone and Internet Expense	60,000
Professional Fee (Legal, Audit etc)	0.01%
Machinery & Equipment Insurance Rate	2%
Promotion Expense	3.0%

8.6 Depreciation Expense Assumptions

Depreciation Expense Assumptions	
Depreciation method	Straight line
Machinery & Equipment	10%
Furniture & Fixtures	10%
Office Equipment	10%
Building & Infrastructure	10%
Amortization of pre operating costs	20%

8.7 Cash Flow Assumptions

Cash flow Assumptions	
Accounts Recievable Cycle (In Days)	15

Accounts Payable Cycle (In Days)	15
Credit Sales as % of total sales	70%
Credit Purchases as % of total purchases	50%

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