



# **PRICE**

**Poverty Reduction by  
Increasing the Competitiveness of Enterprises**

## **Sector Analysis and Recommendations Report**

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## List of Acronyms

1. BGMEA – Bangladesh Garment Manufacturers and Exporters Association
2. BRC - British Retail Consortium
3. BSFF – Bangladesh Shrimp and Fish Foundation
4. COP – Chief of Party
5. CTG – Chittagong
6. EMP – Environmental Management Plan
7. EPB – Export Promotion Bureau
8. EU – European Union
9. EUREPGAP – Euro-Retailer Produce Working Group, Good Agricultural Practices
10. FAO – Food and Agriculture Organization
11. FDA – Food and Drug Administration of the United States
12. GAP – Good Agricultural Practices
13. GDA Global Development Alliances
14. GDP – Gross Domestic Product
15. GMP – Good Manufacturing Practices
16. GOB – Government of Bangladesh
17. HACCP – Hazard Analysis and Critical Control Points
18. HPAI – Highly Pathogenic Avian Influenza
19. IPM – Integrated Pest Management
20. ISO – International Organization for Standardization
21. JDP – Jute Diversified Products
22. MFA – Multi Fibre Arrangement
23. MM - Middlemen
24. PL – Post Larvae
25. PMP – Performance Management Plan
26. PRICE – Poverty Reduction by Increasing the competitiveness of Enterprises
27. SA – Social Accountability
28. SAI – Social Accountability International
29. SGS – Societe Generale de Surveillance
30. SME – Small and Medium Enterprises
31. SWOT – Strength, Weakness, Opportunities, Threats
32. TA – Technical Assistance
33. UK – United Kingdom
34. USAID – United States Agency for International Development
35. USD – United States Dollar
36. WHO – World Health Organization

# 1. Background

## A. Country Background

Over the past two decades, Bangladesh has made great strides in the fight against poverty. The country has achieved sustained economic growth, improved food security, reduced population growth and child mortality rates, registered gains in life expectancy, school enrollment, and women's participation in the economy, broadened infrastructure networks, and expanded the role of civil society and democratic institutions. The seasonality and intensity of poverty have lessened. Land has ceased being the principal basis of power and status, labor markets have become more fluid and less hierarchical, and economic actors have become more market-oriented. Political unrest, workforce development challenges, and limited government support in overhauling the economy for better competitiveness did not derail an estimated 6.1 percent GDP growth in 2006. Manufacturing has remained robust despite the end of the Multi Fibre Arrangement (MFA). Mobile phones and health care have propelled the service sector's share of the economy over 50 percent.

However, persistent and serious problems remain. Democracy is precarious, poverty rates are high, and pockets of intense poverty persist. Economic growth and job creation still fall short of the nearly 2 million new jobs needed annually to employ new entrants at all levels. Equitable distribution of economic gains remains elusive, particularly among women and youth. Bangladesh ranked low on the World Economic Forum's global competitiveness index in 2006 (99<sup>th</sup> out of 125 countries) and lags behind its larger neighbors, India and China, in infrastructure, education, and technology investments. Bangladesh scored poorly on the same index in institutional development, infrastructure, education, market efficiency, technological readiness, business sophistication, and innovation, suggesting the need for greater pro-poor policy change and interventions.

## B. PRICE Project Overview

In response to this, USAID has established the PRICE project (Poverty Reduction by Increasing Competitiveness of Enterprises), a five year pro-poor competitiveness project. PRICE's mission is to increase sales, jobs, and investment throughout the value chains of three sectors, with particular benefit to women, young adults, and SMEs. The three sectors are aquaculture (shrimp and fish), horticulture and leather products.

PRICE will enhance the competitiveness of Bangladeshi firms, products, and services in global markets and simultaneously reduce the inequities that impede the poor from reaping greater benefit from economic and income growth. PRICE activities will be designed systematically to ensure pro-poor linkages. PRICE will forge solid connections between SMEs and larger producers and exporters, which typically have direct and more efficient access to markets.

PRICE will accomplish its mission through three mechanisms:

- (1) Strategic sector-wide activities that deal with a key industry opportunity or constraint, thereby creating sales, jobs, and investment throughout the entire sector. Depending on ultimate sectors, some possibilities include:
  - Training for better shrimp farm practices for higher yields;
  - Initiative to certify labor practices in shrimp sector to preserve markets;
  - Facilitating mobile phone technology for current market prices for farmers;
  - Training hatchery technicians for more local, technology control;
  - Create warehouse receipts program to even demand/supply for farmers;
  - Training women food processing workers to proper handling.

(2) Facilitating sales transactions up and down the value chains through training and TA, linking connector firms and SME suppliers to specific buyers. This will create a multiplier effect in sales, jobs and investment through backward and forward linkages, as well as the “copy-cat” effect. Some examples include:

- Facilitating contract farming to supply food processors;
- Assisting with financing to purchase equipment to complete a sale;
- Linking SME suppliers to larger firms to complete sales transactions.

(3) Policy Advocacy by identifying and advocating policy or regulatory changes, through USAID or other partners, to propel growth in PRICE value chains.

### **C. Objective and Approach of Sector Analysis and Recommendations**

#### **Objective**

The objective of this sector analysis and recommendations is to complete the PRICE contractual deliverable of Task 1: Analysis of potential sub-sectors. This analysis will serve two purposes: (1) to recommend (or confirm) a minimum of three sectors for targeted PRICE interventions, based on the objectives and criteria outlined in the PRICE contract, and (2) identify and outline key elements of the recommended sectors (e.g. potential connector firms, environmental and gender issues, areas of geographic concentration, sub-sector map, etc.).

#### **Analysis Team**

The sector analysis was led by an international consultant, Antonio Calzada, working under the supervision of the Chief of Party, Robert Webster, and working in collaboration with Zakir Hossain, PRICE Director of Business Development. The analysis was conducted from mid-April through mid-June 2008, with Mr. Calzada being in country from April 12<sup>th</sup> to May 9<sup>th</sup>.

#### **Methodology**

Based on desk-top research and stakeholder interviews, the sector analysis team evaluated potential sectors based on selection criteria set forth in the PRICE contract. The selection criteria were to be scored using common industry practice (see Summary of Analysis and Recommendations below), leading to three recommended sectors. The criteria set forth for this analysis included:

- Potential for sales/income growth;
- Potential for job creation;
- Value-addition opportunities that contribute to the growth of the sector;
- Opportunities for gender and youth integration in development plans, particularly for future implementation activities;
- Forward and backward linkages in each sector and defining supporting roles to be played by the Contractor and local stakeholders;
- Identification and evaluation of key resource gaps hindering the development of the sector;
- Data availability for micro, small, medium and large industries in sector;
- Inclusions of geographical areas with high levels of poverty, yet have underdeveloped potential for economic growth;
- Opportunities to incorporate international product quality standards and labor practices;
- Opportunities to contribute to improved governance practices and reduced corruption;
- Quantitative cost-benefit analysis of trade-offs inherent in the choice of the three sub-sectors, indicating key priorities and rationale for selection;

As also taken directly from the PRICE contract, the analysis will also highlight potential implementation issues, such as:

- Initial assessment of environment impact issues that would need to be addressed;
- Availability of or ability to acquire baseline data relevant for performance indicators;
- Indicators for monitoring performance should be measurable, able to be collected in a timely manner, and feasible to track in a dynamic environment;
- An estimated budget for each sub-sector;
- An outreach strategy involving local leaders of influence, and the general public's awareness of and support for PRICE

### **Sector Short-List**

As part of the iterative process for final sector selection, USAID requested a submission of a "short-list" of four to six potential sub-sectors for discussion prior to the submission of its final recommendations. This was submitted in late April with six sectors short-listed for consideration. These six sectors were

- Shrimp/Aquaculture, Horticulture
- Leather and Leather Products
- Dairy
- Horticulture
- Poultry
- Jute and Jute Diversified Products

In presenting its short-list, Chemonics recommended the project focus, at a high level, in high value agribusiness as this fulfills the above criteria, as well as other important factors:

- A high percentage of the Bangladeshi population is dependent upon agribusiness.
- Agribusiness is labor intensive and thus creates opportunities for women and youth.
- There are significant technical synergies between sub-sectors within agribusiness.
- The backward and forward SME linkages are well-established in agribusiness value chain.
- There are significant value addition opportunities in agribusiness.
- High value agribusiness provides opportunities in both export and domestic markets.
- There is a current imperative to "do something about food prices".

## D. Summary Analysis and Recommendations

From this short-list, PRICE conducted further research, interviews, etc. to determine its three recommended sectors. Table 1 below summarizes PRICE's recommendation of three sectors for support: (1) shrimp/aquaculture, (2) horticulture, and (3) leather and leather products. This recommendation was done through utilizing the common industry practice of scoring the different selection criteria, including the practice of weighting some of the selection criteria higher than other criteria. The recommendation has been presented to and accepted by USAID.

More specifically, each criteria was given a strength factor for each sector (5 = Highest; 1 = Lowest). Also, five criteria (sales, jobs, value-addition opportunities, opportunities for women and youth, and linkages with SMEs) were weighted twice the others based on discussions with USAID. The criteria strength factors and the weighting of criteria are obviously subjective, but it follows common practice for evaluating potential sectors for competitiveness projects.

**Table 1: Sector Selection Matrix** (Criteria Strength Factor: 5 = Highest; 1 = Lowest)

Criteria \ Sector	Aqua-culture	Horti-culture	Leather Products	Poultry	Dairy	Jute and JDP
Sales growth potential (2x)	5 (10)	5 (10)	5 (10)	5 (10)	4 (8)	4 (8)
Jobs growth potential (2x)	5 (10)	5 (10)	5 (10)	4 (8)	4 (8)	3 (6)
Women and youth (2x)	5 (10)	5 (10)	4 (8)	4 (8)	5 (10)	3 (6)
Value-addition (2x)	5 (10)	4 (8)	5 (10)	3 (6)	2 (4)	4 (8)
SME linkages (2x)	5 (10)	5 (10)	5 (10)	4 (8)	5 (10)	4 (8)
Gaps identified	5	5	5	5	5	3
Geographic poverty	4	5	4	4	5	5
Quality/labor	5	4	4	4	4	4
Governance issues	3	3	3	3	3	3
Data availability	3	3	3	3	3	3
Cost-benefit trade-offs	3	3	3	3	3	3
Total Weighted Score	73	71	70	62	63	57

### Individual Sector Strategic Analysis

The following pages include a detailed, comprehensive analysis of the three recommended sectors (shrimp and aquaculture are broken out under an overall vision for the shrimp/aquaculture sector) in support of this recommendation, including:

- Sector strategic analysis, with vision, objectives and strength, weakness, opportunities, and threats (SWOT) analysis
- Value chain depiction with constraints, opportunities and player highlights
- Matrix outlining the value chain players and growth constraints
- Detailed description and scoring of different selection criteria for proposed sectors

## 2. Aquaculture Sector (Overall Score: 73)

### A. Sector Strategic Analysis

#### The Sector Vision (both shrimp and fish sub-sectors) \*

*After five years, the entire aquaculture sector should grow from over 500 million to one billion USD in export and domestic sales, having adopted international standards in farming, quality and socially responsible practices, all for the benefit of farmers, women and young adults.*

#### Shrimp Sub-Sector Overview

The sub-sector has two kinds of cultivated shrimp, the brackish water *bagda* and the freshwater *galda*. *Bagda* dominates production, but *galda* commands a higher price. Both occur in the southern half of the country. Shrimp are caught in the wild, but most are farmed in the southwest quadrant of Bangladesh. Most farms use traditional, inefficient methods, giving low yields and allowing disease and toxins.

The shrimp part of the shrimp/aquaculture sector is extremely important to Bangladesh's economy, with (1) its high export volume (second largest contributor to export earnings), (2) heavy involvement of women and SMEs in the value chain, and (3) significant opportunities for impact interventions by PRICE, both in facilitating sales transactions up and down the value chain and in designing and implementing strategic activities for the sector. Also, USAID has already made a significant investment in developing this sector, particularly with regard to shrimp.

The shrimp sector has numerous growth constraints that PRICE can address. These constraints include (1) poor *bagda* farm yields, leading to overcapacity and quality issues at the processor level, (2) emerging perception of unfair labor practices in the key US market, and (3) continuing threat of EU sanctions due to the recurrence of contaminants being found in export shipments.

#### Shrimp Sub-Sector SWOT Analysis

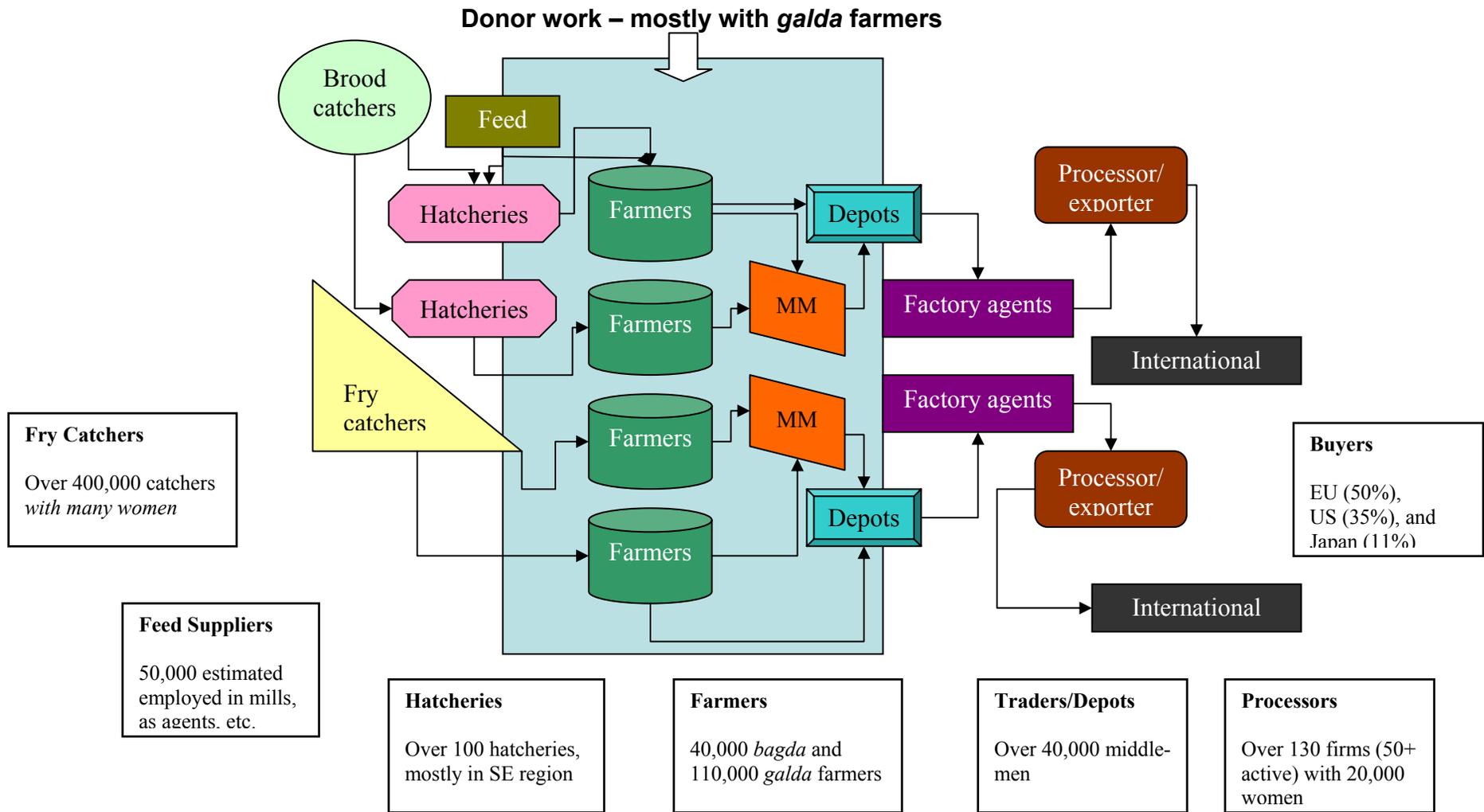
<p><b>Strengths</b></p> <ul style="list-style-type: none"> <li>• Industry leadership</li> <li>• International market linkage</li> <li>• Modern hatchery &amp; processing technology</li> <li>• Committed processors</li> <li>• Natural resource endowment</li> <li>• Bangladesh shrimp are large (good) in size</li> <li>• International certification at some levels</li> <li>• Successful farm yield pilot projects</li> </ul>	<p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Farm yield increases with better management, improved feed and post-larvae</li> <li>• Demand exceeds supply</li> <li>• Fair trade (labor practices) program</li> <li>• Quality assurance program</li> <li>• New varieties, such as Vannemi</li> <li>• Complementary production (horticulture, fish, rice, etc.)</li> </ul>
<p><b>Weaknesses</b></p> <ul style="list-style-type: none"> <li>• Poor farms yields (management practices, feed, toxin contamination, PL issues)</li> <li>• Processing over capacity</li> <li>• Value chain inefficiency- middlemen</li> <li>• Labor practice, quality issues</li> </ul>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>• Possible US &amp; EU boycott - fair trade and toxins issues</li> <li>• Falling prices (commodity)</li> <li>• Environmental (viruses &amp; contaminants)</li> <li>• Competition (China, India, Vietnam, etc.)</li> </ul>

#### Shrimp Sub-Sector Strategic Objectives

The following strategic objectives will result in the sector reaching the above vision:

- Obtain international standards in product quality/fair trade to ensure market access;
- Greatly improve farm yields to raise farmer income and utilize processor over capacity;
- Improve the quality, and reduce the price, of shrimp/fish feed.

**Diagram 1: Value Chain of Shrimp Sub-Sector**



## 2. Aquaculture Sector (cont'd)

### A. Sector Strategic Analysis (cont'd)

#### The Sector Vision (both shrimp and fish sub-sectors) \*

*After five years, the entire aquaculture sector should grow from over 500 million to one billion USD in export and domestic sales, having adopted international standards in farming, quality and socially responsible practices, all for the benefit of farmers, women and young adults.*

#### Fish Sub-Sector Overview

Fish (“white fish”) remains the dominant source of protein for Bangladesh food consumers, thus being in high demand. Bangladesh grows both salt and fresh water fish naturally and through cultivation, although fresh water, cultivated *carp* comprises the vast majority of domestically consumed fish. The vast majority of fish production is consumed domestically, virtually all of which is purchased in “wet” markets. Hilsha, which is produced in salt and fresh water, is the major fish export. Freshwater *carp* is often discussed as a complementary species for *galda* ponds. Fish are grown throughout Bangladesh.

Thus, the aquaculture sub-sector is also very important to Bangladesh’s economy. In relation to PRICE, it has (1) a high natural endowment, (2) heavy involvement of women and SMEs in the value chain, and (3) significant opportunities for impact interventions by PRICE, both in facilitating direct sales transactions up and down the value chain and in designing and implementing strategic activities for the sector. The aquaculture sector has numerous strategic growth constraints that PRICE can address, some of which are very similar to the shrimp sub-sector. These constraints include (1) low farm yields from poor farm practices, low quality feed and in-breeding at the hatcheries, (2) post-harvest loss and (3) domestic and export marketing opportunities for fish.

#### Fish Sub-Sector SWOT Analysis

<b>Strengths</b> <ul style="list-style-type: none"> <li>• Natural resource endowment</li> <li>• Committed processors</li> <li>• Donor commitment</li> <li>• Successful farm yield pilot projects</li> </ul>	<b>Opportunities</b> <ul style="list-style-type: none"> <li>• Farm yield increases with better management</li> <li>• Integrated fish pond culture</li> <li>• Demand exceeds supply</li> </ul>
<b>Weaknesses</b> <ul style="list-style-type: none"> <li>• Poor farms yields (management practices)</li> <li>• Value chain inefficiency- middlemen</li> <li>• Bad quality of fry/fingerlings</li> <li>• Inferior quality of feedstuff</li> <li>• Seasonality</li> </ul>	<b>Threats</b> <ul style="list-style-type: none"> <li>• Natural calamities</li> <li>• Diseases</li> <li>• Competition (China, India, Vietnam, etc.)</li> <li>• land Constraints</li> <li>• High priced feed</li> </ul>

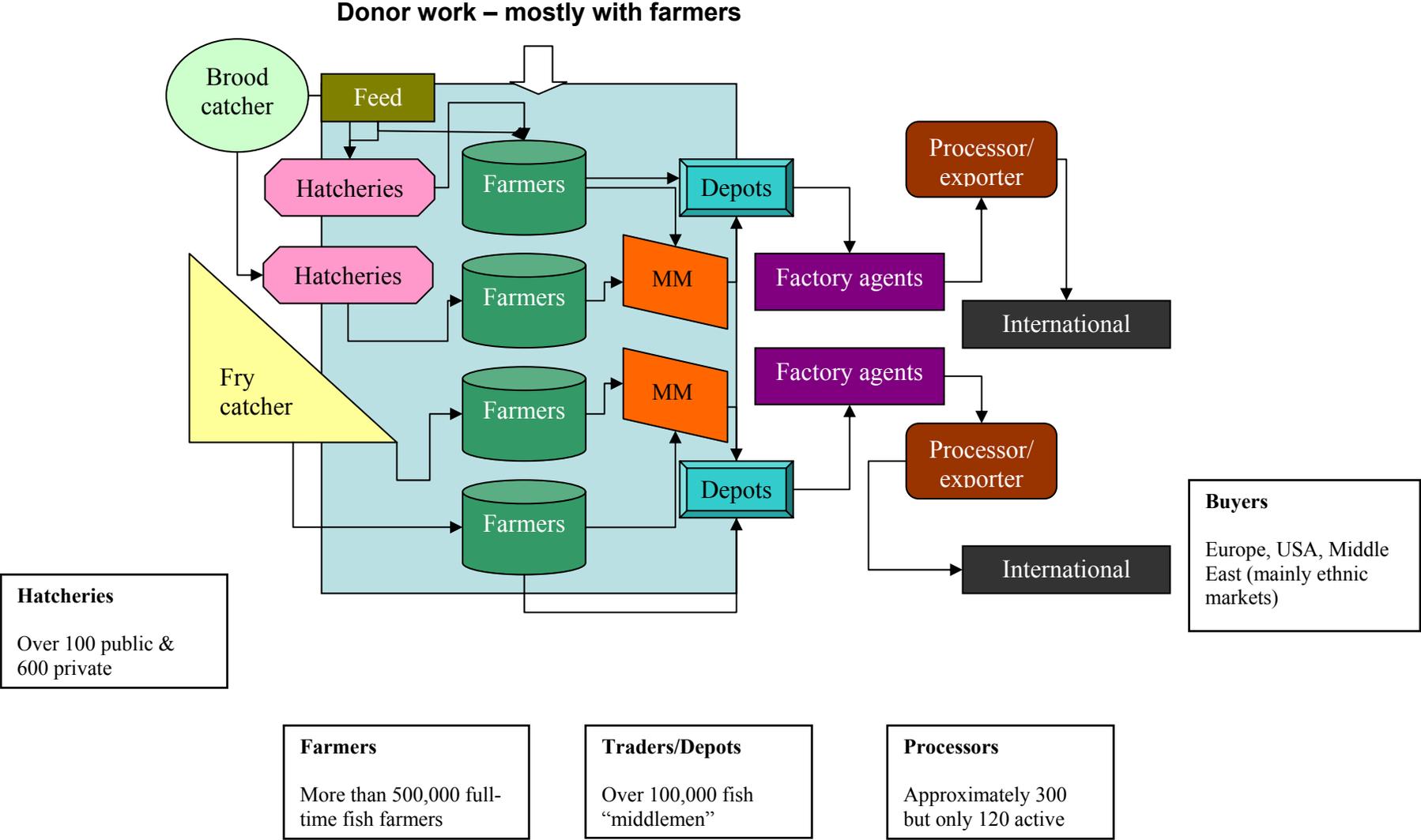
#### Fish Sub-Sector Strategic Objectives

The following strategic objectives will result in the sector reaching the above vision:

- Greatly improve farm yields to raise farmer income and utilize processor over capacity;
- Improve the quality and reduce the price of feed;
- Improve market access and information;
- Improve supply of inbred free fries/fingerlings.

*\* The Sector Vision, SWOT and Strategic Objectives outlined above are a reflection of the overall sector. PRICE’s role is to design interventions to significantly contribute to part of the vision and so forth. And this will be vetted at planned stakeholder sessions in June and August.*

**Diagram 2: Value Chain of Fish Sub-Sector**



## 2. Aquaculture Sector (cont'd)

### B. Summary of Primary Sector Selection Criteria

As noted earlier, Chemonics and USAID have agreed that the primary sector selection criteria are opportunities for: (1) sales growth, (2) jobs growth, (3) for women and young adults, (4) PRICE value addition to the sector, and (5) SME suppliers. These criteria are given a double weight beyond their criteria strength factors and are covered in summary below as they relate to both shrimp and fish. The double-weighted strength factors feed into the sector's overall score.

<p><b>Sales Growth</b></p> <p><b>Criteria Strength Factor - 5</b></p> <p><i>Existing sales (and jobs) in shrimp are under threat from Western sanctions</i></p>	<p><b>Summary</b> Sales growth can be considered very strong (i.e. high as a strength factor) for aquaculture, especially, with the threat of sanction from the U.S. and the EU, when shrimp sales preservation is included. The current crisis of Western concern over extreme, unfair labor practices in the shrimp sub-sector highlights the need for support simply to maintain the current high level of (sales and jobs). This also applies to concerns over the level of antibiotic residues, such as nitrofurans, in Bangladeshi shrimp. PRICE believes there are opportunities for expanded, value addition products for domestic and foreign consumption. This is very true for the fish sub-sector, for which PRICE believes there is a large domestic market opportunity, leveraging growing income levels and concerns over the safety of the food supply. Also, new markets (Russia and Egypt) are present export options.</p>
<p><b>Jobs Growth</b></p> <p><b>Criteria Strength Factor - 5</b></p> <p><i>600,000 depend directly on shrimp farming alone</i></p>	<p><b>Summary</b> Sales and jobs, especially in agribusiness, usually are strongly correlated, even causally related. This is certainly true for the aquaculture sector. So, as with sales, jobs preservation is critical in shrimp sector given the threat of U.S. or EU sanctions. Approximately 1.2 million people are employed in the shrimp sector and some 600,000 people depend directly on just shrimp farming for income. Also, strong domestic market opportunities in the fish sub-sector indicate strong growth opportunities in terms of employment.</p>
<p><b>Women and Young Adults</b></p> <p><b>Criteria Strength Factor - 5</b></p> <p><i>Many women in processing but vulnerable due to low-wages &amp; informal status</i></p>	<p><b>Summary</b> According to a USAID study, women comprise 55 percent of the “person days” of labor throughout the shrimp value chain, with most of this being concentrated in the fry catching, farming and processing portion of the value chain. In fact, approximately half of the total person days in the value chain are made up of women in processing. Women are also more insecure in their positions, less apt to have formal labor contracts or low-wage work. A similar dynamic exists for the fish sub-sector part of aquaculture. Also, PRICE sees considerable opportunities for young adults in the domestic market in the sales area. For example, PRICE is already working with Peninsula Seafood to design and implement a sales training program that could be replicable for others. Thus, PRICE support for aquaculture should have significant benefits to women and young adults.</p>
<p><b>Value Addition</b></p> <p><b>Criteria Strength Factor - 5</b></p> <p><i>Shrimp farm yields could be increased four times with better farm practices</i></p>	<p><b>Summary</b> The value addition opportunities for PRICE in this sector are directly related to the sector gaps noted further below. For aquaculture (shrimp and fish), these include:</p> <ul style="list-style-type: none"> <li>• Improving shrimp farm practices to increase farm yields &amp; processing utilization;</li> <li>• Awareness building of female workers and technical assistance for GoB to improve labor practices at shrimp and fish processing firms;</li> <li>• Training young technicians for local hatcheries for higher quality PLs;</li> <li>• Identifying and linking processors with foreign markets;</li> <li>• Training local sales team for great domestic market penetration;</li> <li>• Assisting processing firms and exporters to find buyers in new markets.</li> </ul>
<p><b>SME Linkages</b></p> <p><b>Criteria Strength Factor - 5</b></p> <p><i>The value chain is highly fragmented with many SME, even micro, firms</i></p>	<p><b>Summary</b> The SME linkages in the aquaculture are very significant and extensive. Below the processor level, the value chain is highly fragmented in terms of fry catchers, hatcheries and farms, meaning that processors depend heavily, either directly or indirectly through intermediaries, on a huge number of micro- and small enterprises. Input suppliers, particularly feed suppliers, are also fragmented, being independent agents of the larger feed companies for distribution purposes. Of course, due to the fragmentation of farms, this requires intermediaries in terms of agents, transport, etc., which, while presenting challenges for the sector in terms of quality and profit margins, nevertheless represent further SME beneficiaries.</p>

## 2. Aquaculture Sector (cont'd)

### C. Other Sector Selection Criteria

In addition to the primary sector selection criteria noted above, there are other selection criteria indicated in the PRICE contract, as noted earlier. These criteria are covered in summary below as they relate to both shrimp and fish, with the individual criteria strength factors feeding into the sector's overall score, as reflected in Table 1 above.

<p><b>Sector Gaps</b></p> <p><b>Criteria Strength Factor - 5</b></p>	<p><b>Summary</b> There are numerous significant sector gaps and these were covered in the above SWOT and Constraints and Opportunities pages. However, a quick summary is indicated here:</p> <ul style="list-style-type: none"> <li>• High price and poor quality of shrimp and fish feed;</li> <li>• Low quality post-larvae from shrimp hatcheries;</li> <li>• Very poor shrimp farm yields, which is the top growth constraint for sub-sector;</li> <li>• Threat of sanctions from U.S and EU from labor practices and quality issues;</li> <li>• Opportunity/need to diversify international markets beyond EU and U.S.;</li> <li>• Domestic market growth opportunity for processed fish;</li> <li>• Poor effectiveness of local sales staff in fish processing sub-sector.</li> </ul>
<p><b>Poverty Coverage</b></p> <p><b>Criteria Strength Factor - 4</b></p>	<p><b>Summary</b> The aquaculture sector covers some of the poorest regions of Bangladesh, particularly with regards to the catching of fry and small farms, both brackish and freshwater. In particular, the <i>bagda</i> variety is grown mostly in the Chittagong and Khulna regions, which are poor regions in Bangladesh. <i>Galda</i> is produced in the south-central part of Bangladesh, which is a particularly poor region. Finally, while open surf fry collecting is diminishing in volume, this activity remains significant and takes place in poor and vulnerable coastal regions.</p>
<p><b>Quality &amp; Labor</b></p> <p><b>Criteria Strength Factor - 5</b></p>	<p><b>Summary</b> It is well-documented that there are quality and labor issues in the aquaculture sector, particularly in the shrimp value chain portion. For example, the EU has long been concerned about level of antibiotics in Bangladesh shrimp, even ceasing imports for a time. The U.S. has recently expressed serious concern over labor practices in the shrimp sector in Bangladesh. While these are serious concerns, they are also opportunities for PRICE. The project has already begun a dialogue with the BSFF and the Solidarity Center over addressing the labor issues and looks to improving shrimp farm practices to help with quality issues.</p>
<p><b>Governance issues</b></p> <p><b>Criteria Strength Factor - 3</b></p>	<p><b>Summary</b> Governance largely relates to openness, transparency and accountability in looking out for the interest of sector stakeholders. There is a large opportunity in the shrimp sector to improve governance practices. This could be realized through improved labor practices through some type of certification scheme, such as Fair Trade, as well as through improved quality through a quality certification scheme. Similarly, better regulated feed labeling would also improve governance in the shrimp and fish sub-sectors. Governance and corruption are systemic in Bangladesh, to say the least, posing great challenges in this regard.</p>
<p><b>Data Availability</b></p> <p><b>Criteria Strength Factor - 3</b></p>	<p><b>Summary</b> Production data for the shrimp industry comes from various sources. Micro industry data are available from farmers' cooperatives that are often supported by foreign agencies and which keep track of the output target from their funded projects. Data are also collected from the fishing ports and from the cold storages where catches are deposited for a period, as well as from micro-finance organizations that provide loans for farmers and keep track on output levels. The Department of Fisheries publishes annual data of production under different categories, such as shrimp and white fish, marine catches, processor-wise and export data. The question of the reliability and validity of such data are always prevalent, however this concern is probably the same across all three proposed sectors.</p>
<p><b>Cost-Benefit</b></p> <p><b>Criteria Strength Factor - 3</b></p>	<p><b>Summary</b> The cost-benefit trade-offs for the different sector possibilities, including aquaculture, were quantified in the scoring methodology noted earlier in Table 1. This scoring methodology, a very common industry practice, quantified the various selection criteria stipulated in the contract, leading to the recommended sectors of aquaculture, horticulture and leather products.</p>

## 2. Aquaculture Sector (cont'd)

### D. Potential Implementation Issues

The sub-sector analysis is also to highlight potential implementation issues such as:

- Initial assessment of environment impact issues that would need to be addressed;
- Availability of or ability to acquire baseline data relevant for performance indicators;
- Indicators for monitoring performance should be measurable, able to be collected in a timely manner, and feasible to track in a dynamic environment;
- An estimated budget for each sub-sector;
- An outreach strategy involving local leaders of influence, and the general public's awareness of and support for PRICE

<b>Environmental Issues</b>	There are several environmental issues that will be explored in more detail with the upcoming Environmental Management Plan (EMP). These issues include (1) the intrusion of saline water in paddy field and livestock grazing areas, (2) the deforestation of mangroves in Chittagong area, (3) the loss of biodiversity, and (4) the change of crop patterns.
<b>Baseline Data Availability</b>	Based on its analysis at this stage, Chemonics does not envision any issues in obtaining baseline data for possible performance indicators outlined immediately below, such as sales, jobs, investment, etc. This will be explored in more detailed during the development of the performance management plan (PMP).
<b>Performance Indicators</b>	Chemonics does not expect any issues with identifying performance indicators for the aquaculture sector. While this will be clarified during the development of the performance management plan (PMP) in August, Chemonics expects that the primary indicators will be sales, jobs and investment, reflecting the primary objectives in the PRICE contract. Other performance indicators could be increased farm production, jobs by gender, training participants, etc. At this stage of the analysis, Chemonics does not see any obstacles to having indicators that are measurable, able to be collected in a timely manner, and feasible to track in a dynamic environment.
<b>Estimated Budget</b>	It is difficult to definitively estimate the budget for support for the three sectors, including the aquaculture sector. However, given (1) its importance to Bangladesh in terms of foreign exchange, (2) its employing over one million people, and (3) the fact that it includes both shrimp and fish, Chemonics expects that aquaculture will require approximately 40 percent of the PRICE contract budget, compared to 30 percent each for horticulture and leather products.
<b>Outreach strategy</b>	PRICE will develop its project communication strategy by December 2008. This strategy will include standard communication approaches, including identifying stakeholders (target audience), appropriate messages, communication tools, etc. This will be done for each sector. A unique dimension for aquaculture will be an outreach strategy for shrimp farmers due to the expectation of a major PRICE initiative to improve farm management practices for higher farm yields. The key will be demonstrating to farmers the value of implementing these practices in terms of higher prices and volume by using demonstration projects and other awareness raising tools.

### 3. Horticulture Sector (Overall Score: 71)

#### A. Sector Strategic Analysis

##### The Sector Vision

*After five years, horticulture will double production to 8 million metric tons through better farming practices, storage facilities and marketing, making larger inroads into the domestic and export markets with fresh and processed products, all for the benefit of women, young adults and farmers.*

##### Sector Overview

Horticulture in Bangladesh is comprised of a wide range of locally-grown, fresh fruits, vegetables and spices sold on the domestic market, including cabbage, radish, mango, banana, and jackfruit, however, the potato dominates, accounting for over one-half of all horticulture production. Spices, especially onions as well as chilies and garlic, are increasingly popular as processed products.

The sector is important to Bangladesh, particularly in terms of poverty reduction, with (1) strong domestic demand for fresh fruits and vegetables, (2) the participation of some ten million farmers in the value chain, and (3) significant growth opportunities for processed fruits and vegetables on the domestic market and general horticultural products in export markets. Horticulture production is abundant throughout Bangladesh, although particularly so in the very poor northwest region.

Furthermore, horticulture has numerous constraints PRICE can address, through both its direct sales transactions work and its sector-wide strategic activities. These constraints include (1) poor farm yields due to poor management and post-harvest losses, (2) unfair trade by traders (*Mohajan*), (3) low quality inputs (fertilizer, seeds) and (3) poor marketing, including lack of market information for farmers and marketing and product development at the processor level. PRICE's work would focus in Dhaka and the northwest and the Jessore/Khulna and Chittagong regions.

##### Sector SWOT Analysis

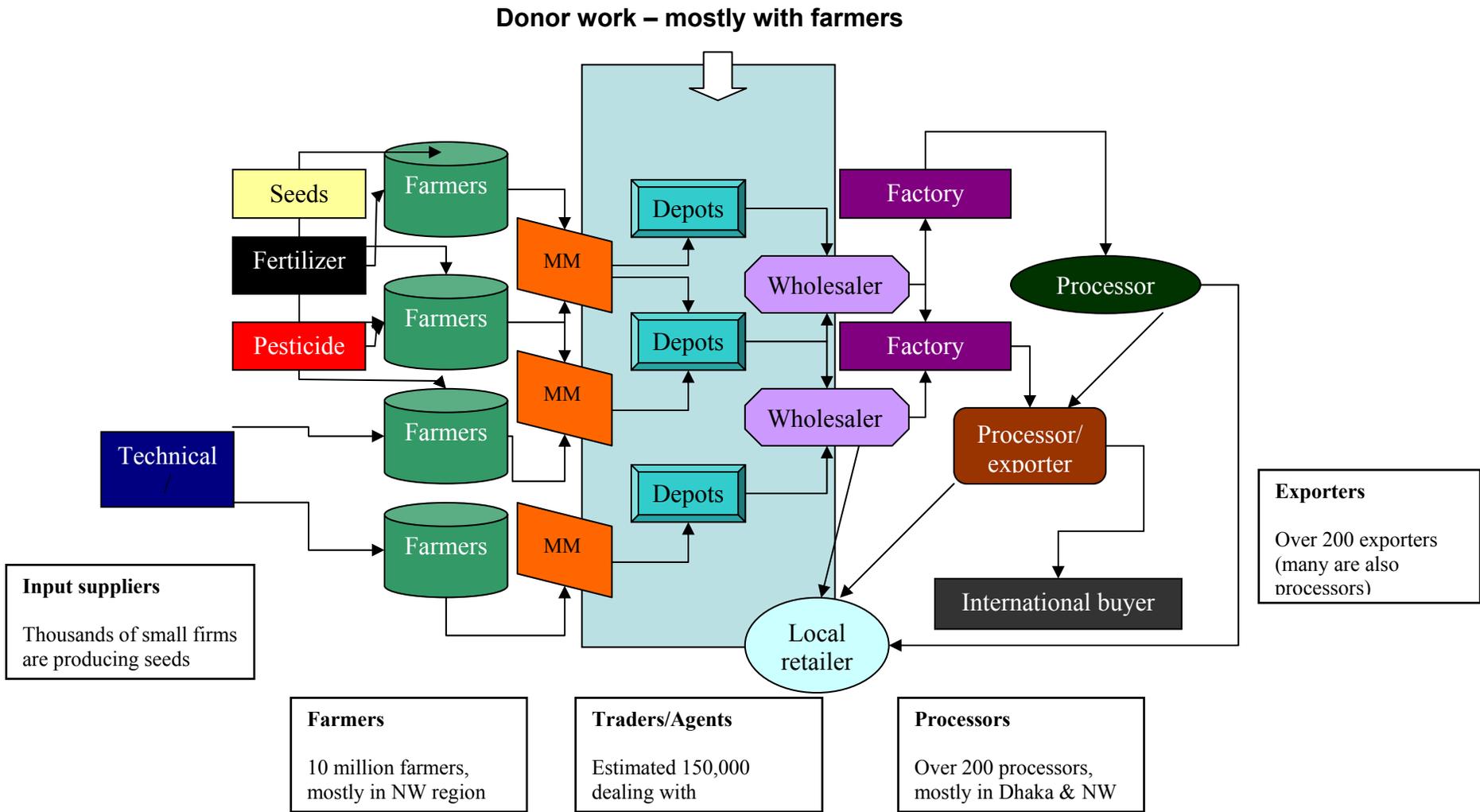
<p><b>Strengths</b></p> <ul style="list-style-type: none"> <li>• Ample labor throughout value chain</li> <li>• Low investment required</li> <li>• Committed value addition processors</li> <li>• Natural resource endowment</li> <li>• International certification at some levels</li> <li>• Successful farm yield pilot projects</li> <li>• Diversified crop base</li> </ul>	<p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Farm yield increases with better management and seeds and plant material</li> <li>• Domestic demand exceeds supply</li> <li>• Quality assurance/Fair trade</li> <li>• New processed/value added products</li> <li>• Intl markets (ethnic, certification)</li> <li>• Storage facilities</li> </ul>
<p><b>Weaknesses</b></p> <ul style="list-style-type: none"> <li>• Poor farm management</li> <li>• Lack of financing</li> <li>• Value chain inefficiency</li> <li>• Lack of alternative market intelligence</li> <li>• Poor seed quality</li> <li>• Poor packaging, transportation, distribution</li> </ul>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>• Natural calamities (cyclone, flood, drought)</li> <li>• Environmental (diseases and pests)</li> <li>• External market influences (international prices, oil prices, changing market requirements, etc.)</li> </ul>

##### Sector Strategic Objectives

The following strategic objectives will result in the sector reaching the above vision:

- Improve farm management and organization to improve farm yields and returns;
- Improve seed quality for higher farm yields and returns;
- Improve post-harvest handling and storage to reduce losses and even out demand/supply;
- Improve marketing throughout the sector (market information, product development).

**Diagram 3: Value Chain of Horticulture Sector**



### 3. Horticulture Sector (Cont'd)

#### B. Summary of Primary Sector Selection Criteria

As noted earlier, Chemonics and USAID have agreed that the primary sector selection criteria are opportunities for: (1) sales growth, (2) jobs growth, (3) for women and young adults, (4) PRICE value addition to the sector, and (5) SME suppliers. These criteria are given a double weight beyond their criteria strength factors and covered in summary below as they relate to horticulture.

<p><b>Sales Growth</b></p> <p><b>Criteria Strength Factor - 5</b></p> <p><i>Average annual growth has been four percent for vegetables and two percent for fruit production</i></p>	<p><b>Summary</b> Domestic and international demand for Bangladeshi produce vastly exceeds current supply. Opportunities are available across the value chain for farmers, suppliers, processors, wholesalers, retailers and exporters. Both processing and primary production are in high demand. As previously indicated, economic growth, rising incomes and urbanization continue expanding demand for local markets. The domestic gap for vegetables presents opportunities to expand production 2-3 times the current level. Also, high-quality branded spices have only begun to tap the market. Satisfied customers in UK and other countries continue requesting frozen vegetables and sales' opportunities exceed supply capacity by eight times (e.g., Eurasia processing company).</p>
<p><b>Jobs Growth</b></p> <p><b>Criteria Strength Factor - 5</b></p> <p><i>Average labor use per ha of vegetable production in Bangladesh is 338 days</i></p>	<p><b>Summary</b> Exact job growth indications for this sub sector are not yet defined. However as supply enhances to fulfill demand, additional small producers will be positively affected due to the many small-holders. In recent years, small farmers have been switching from traditional crops (wheat, rice, pulses and jute) to high-value horticulture as processing firms embrace contract farming arrangements (e.g., 10,000 contract growers providing fruits, vegetables and spices to PRAN). Areas where vegetable production has been promoted are now fully engaged in production (e.g., in Jessore and Savar over 90 percent of farmers are involved in vegetable production). Characterized as a labor intensive sector, horticulture generates high employment opportunities in production and processing, as well as in backward and forward linkages for input suppliers and service providers.</p>
<p><b>Women &amp; Young Adults</b></p> <p><b>Criteria Strength Factor - 5</b></p> <p><i>Over 70 percent of employees in horticulture processing are women</i></p>	<p><b>Summary</b> The horticulture sector provides ample work opportunities for women and young adults, particularly in processing and production areas where detailed work is needed. While specific figures on employment for young adults is not readily available, women account for 47 percent of labor hours in vegetable production, compared to eighteen percent in food grains. Their participation in processing is over 70 percent. Industry participants, particularly processors, are expanding their operations (Eurasia Food, BRAC, PRAN) and this represents new job opportunities for women and young adults. In spices, enhanced opportunities for women and young adults include sales jobs in addition to jobs in production and processing. Accordingly, PRICE sees excellent training opportunities here.</p>
<p><b>Value Addition</b></p> <p><b>Criteria Strength Factor - 4</b></p> <p><i>Backward and forward linkages exist throughout value chain</i></p>	<p><b>Summary</b> The value addition opportunities for PRICE in this sector are directly related to the sector gaps noted further below. For horticulture, these include:</p> <ul style="list-style-type: none"> <li>• Improving post-harvesting handling, including collecting, packing, transporting, etc.;</li> <li>• Expanding and improving contracting farming mechanisms, linking farmers with processors and exporters for greater quality and production;</li> <li>• Improving seed quality for higher yields;</li> <li>• Expanding value-added products by the processors;</li> <li>• Linking processors and exporters to foreign markets.</li> </ul>
<p><b>SME Linkages</b></p> <p><b>Criteria Strength Factor - 5</b></p> <p><i>Backward and forward linkages exist throughout value chain</i></p>	<p><b>Summary</b> Horticulture processors commonly request support to enhance and increase linkages with farmers in order to have additional supply of fruits, vegetables and spices. PRICE can provide support to these companies to enhance their forward linkages with farmers in order to standardize their supply of quality products. Input suppliers and service providers to horticulture producers and processors also need to be further mainstreamed in the value chain and supported by PRICE to improve efficiencies and competitiveness across the chain.</p>

### 3. Horticulture Sector (Cont'd)

#### C. Other Sector Selection Criteria

In addition to the above primary sector selection criteria, there are other selection criteria indicated in the PRICE contract. These criteria are covered in summary below as they relate to horticulture. The individual criteria strength factors feeding into the sector's overall score, as reflected in Table 1 above.

<p><b>Sector Gaps</b></p> <p><b>Criteria Strength Factor - 5</b></p>	<p><b>Summary</b> There are numerous significant sector gaps and these were covered in the above SWOT and Constraints and Opportunities pages. However, a quick summary is indicated here:</p> <ul style="list-style-type: none"> <li>• Post-harvest losses of over 25 percent;</li> <li>• Poor linkages between farmers and processors;</li> <li>• Limited value-added products at the processor level;</li> <li>• Poor cold storage facilities;</li> <li>• Demand greatly exceeds supply in the domestic market.</li> </ul>
<p><b>Poverty Coverage</b></p> <p><b>Criteria Strength Factor - 5</b></p>	<p><b>Summary</b> The main growing areas for horticulture products is in the northwest region of Bangladesh, which is also well-known as representing some of the poorest areas of the country. Thus, working in horticulture would clearly give excellent geographical poverty coverage. Also, a World Bank analysis on fruits and vegetables indicates that significant increases in grower returns would result from a measured reallocation of basic staple crops to horticultural crops. A successful strawberry program in <i>Matiranga</i>, a remote <i>upazila</i> in <i>Khagrachhari</i> district, characterized by high poverty, is geared to benefit thousands of farmers. Focused on reducing poverty and providing opportunities, PRAN, the largest fruit and vegetable processor, helps small farmers across the country grow quality crops with increased yields and purchases their crops at fair.</p>
<p><b>Quality/labor</b></p> <p><b>Criteria Strength Factor - 4</b></p>	<p><b>Summary</b> The quality and labor issues are similar to that in aquaculture, but not perfectly so and not to the same degree. Much of the quality issues relate to seed quality, use of pesticides and post-harvest handling, areas where PRICE could design support interventions. It is possible that the lessons learned from labor practice work in aquaculture could be applied in a similar manner for horticulture. However, more work on this is required. Quality issues are more significant for export markets, but it is expected the quality will become more important locally as more consumers have more disposable income.</p>
<p><b>Governance Issues</b></p> <p><b>Criteria Strength Factor - 3</b></p>	<p><b>Summary</b> Governance largely relates to openness, transparency and accountability in looking out for the interest of sector stakeholders. There could be opportunity in the horticulture sector similar to aquaculture. This could be realized through improved labor practices through some type of certification scheme, such as Fair Trade, as well as through improved quality through a quality certification scheme. Governance and corruption are systemic in Bangladesh, to say the least, posing great challenges in this regard.</p>
<p><b>Data Availability</b></p> <p><b>Criteria Strength Factor - 3</b></p>	<p><b>Summary</b> National accounts of Bangladesh include horticulture along with other agricultural products. Also, the Department of Agriculture have data from either actual or standard production per land area. Export data of horticulture is available at Export Promotion Bureau. Of course, there is always the question of the reliability and validity of such data, but this concern is probably the same across all three proposed sectors.</p>
<p><b>Cost-benefit</b></p> <p><b>Criteria Strength Factor - 3</b></p>	<p><b>Summary</b> The cost-benefit trade-offs for the different sector possibilities, including horticulture, were quantified in the scoring methodology noted earlier in this document. This scoring methodology quantified the various selection criteria stipulated in the contract, leading to the recommended sectors of aquaculture, horticulture and leather products.</p>

### 3. Horticulture Sector (cont'd)

#### D. Potential Implementation Issues

The sub-sector analysis shall also highlight potential implementation issues such as:

- Initial assessment of environment impact issues that would need to be addressed;
- Availability of or ability to acquire baseline data relevant for performance indicators;
- Indicators for monitoring performance should be measurable, able to be collected in a timely manner, and feasible to track in a dynamic environment;
- An estimated budget for each sub-sector;
- An outreach strategy involving local leaders of influence and the general public's awareness of and support for PRICE.

<b>Environment Issues</b>	Although not to the same degree as the other two recommended sectors, horticulture has some environmental issues, largely centered around the use of pesticides, which can infiltrate surrounding soil and water and pose food safety and health issues in the product itself. Pesticides in this regard are more of an issue for horticultural products than for more commodity-like crops.
<b>Baseline Data Availability</b>	Based on its analysis at this stage, Chemonics does not envision any issues in obtaining baseline data for possible performance indicators outlined immediately below, such as sales, jobs, investment, etc. This will be explored in more detailed during the development of the performance management plan (PMP).
<b>Performance Indicators</b>	Chemonics does not expect any issues with identifying performance indicators for the aquaculture sector. While this will be clarified during the development of the performance management plan (PMP) in August, Chemonics expects that the primary indicators will be sales, jobs and investment, reflecting the primary objectives in the PRICE contract. Other performance indicators could be increased farm production, jobs by gender, training participants, etc. At this stage of the analysis, Chemonics does not see any obstacles to having indicators that are measurable, able to be collected in a timely manner, and feasible to track in a dynamic environment.
<b>Estimated Budget</b>	It is difficult to definitively estimate the budget for support for the three sectors, including the horticulture sector. However, PRICE expects that aquaculture will require approximately 40 percent of the PRICE contract budget given (1) its importance to Bangladesh in terms of foreign exchange, (2) its employing over one million people, and (3) the fact that it includes both shrimp and fish. Accordingly, this would mean that the remaining budget would be allocated 30 percent each for horticulture and leather products.
<b>Outreach strategy</b>	PRICE will develop its project communication strategy by December 2008. This strategy will include standard communication approaches, including identifying stakeholders (target audience), appropriate message, communication tools, etc. This will be done for each sector. A unique dimension for horticulture will be an outreach strategy for farmers and post-harvesters due to the expectation of a major PRICE initiative to improve farm management and post-harvest handling practices for higher farm yields and lower losses. The key will be demonstrating to farmers the value of implementing these practices in terms of higher prices and volume by using demonstration projects and other awareness raising tools.

## 4. Leather Products (Overall Score: 70)

### A. Sector Strategic Analysis

#### The Sector Vision

*After five years, the sector should grow from 400 million to one billion USD in export and domestic sales, having adopted adequate hide collection and handling practices, developed skilled labor, improved waste handling, and enhanced international market linkages.*

#### Sector Overview

Bangladesh produces 200 million square feet of leather annually, exporting 80 percent to 53 countries in the form of semi-finished leather (75%), finished leather (20%), and footwear & leather goods, such as handbags, accessories, etc. (5%). Leather and leather products are the third biggest foreign exchange earner, including about 350 million USD in exports in 2005-2006. There is (1) increasing global demand for Bangladeshi prime grain leather, (2) strong SME linkages, (3) the participation of 800,000 people and 2,500 SMEs in the value chain, (4) foreign growth opportunities for more value added products, and (5) unexplored domestic market demand.

The leather sector has numerous growth constraints PRICE can address through its direct value chain sales transactions work and its sector-wide strategic activities. These constraints include (1) poor & traditional flaying in cow slaughtering during *Qurbani*, leading to flaws in raw hides, (2) insufficient R & D, (3) lack of skilled technicians & innovative designers, and (4) poor marketing, including lack of market information and product development at the processor level.

Pollution is a major issue as tanneries in Hazaribagh in Dhaka are routinely emitting toxic effluent into local waterways, despite the GoB's well-known plan to move tanneries to Savar. However, PRICE believes this can be mitigated by (1) working with processors and tanneries with proper facilities, and (2) working with the two main associations to address this.

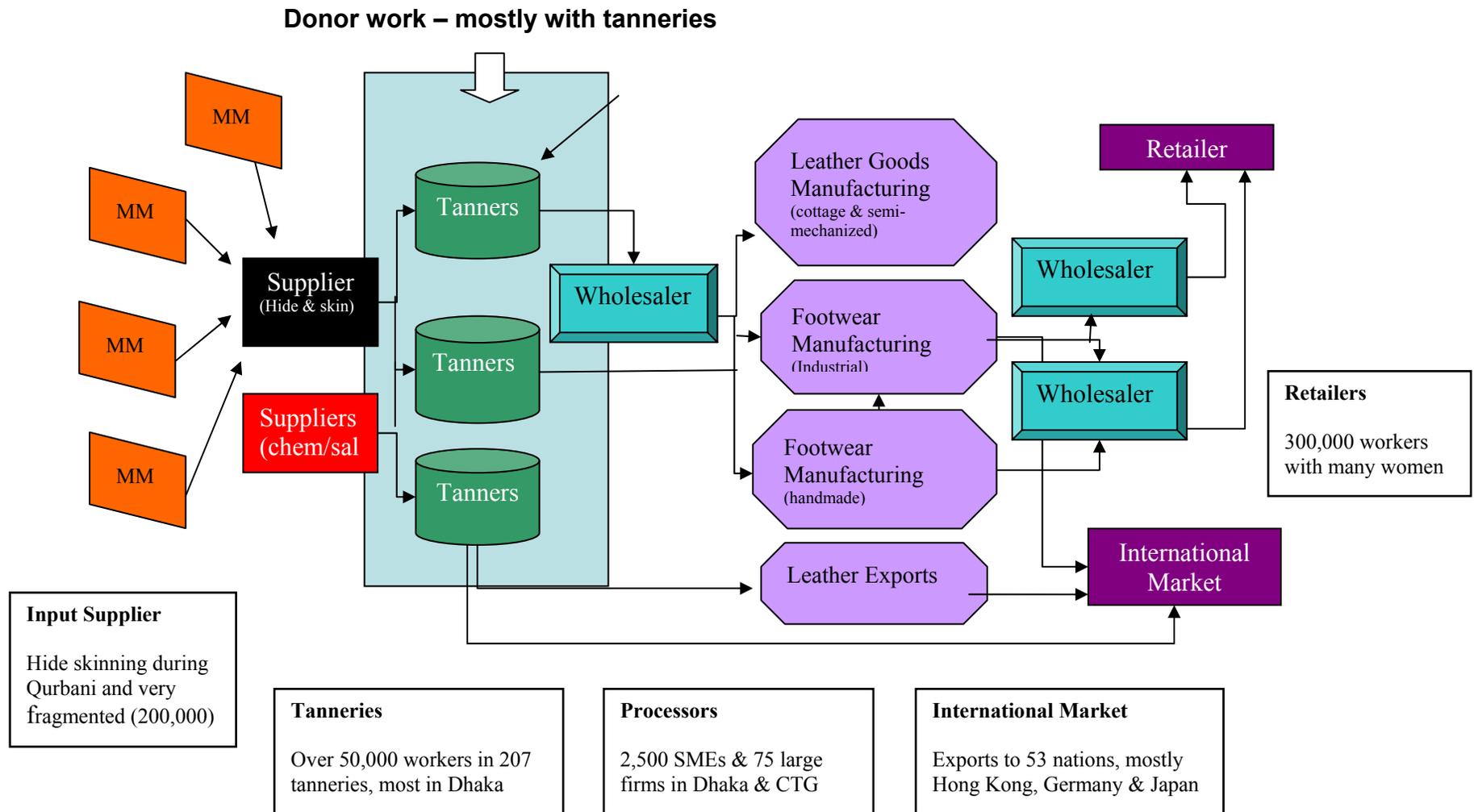
#### Sector SWOT Analysis

<p><b>Strengths</b></p> <ul style="list-style-type: none"> <li>• Management quality at processor level</li> <li>• Ample low-cost labor across value chain</li> <li>• Sufficient supply of leather (renewable)</li> <li>• Reputation and pricing of top grain leather</li> <li>• Export processing zones for leather goods</li> <li>• Production capacity</li> </ul>	<p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Increasing global demand, including duty and quota free access for footwear</li> <li>• Under-exploited domestic market demand</li> <li>• Preferential facilities for foreign buyers</li> <li>• Product value-added opportunities</li> <li>• Transferring tanneries from Dhaka to Savar</li> </ul>
<p><b>Weaknesses</b></p> <ul style="list-style-type: none"> <li>• Weak marketing/product development</li> <li>• Absence of vertical integration</li> <li>• Environmental issues with tanneries</li> <li>• Quality and price issues with leather goods</li> <li>• Need to import chemicals</li> <li>• Lack of skilled technicians, designers</li> </ul>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>• Global economic recession</li> <li>• Power disruptions</li> <li>• Political instability of Bangladesh</li> <li>• International competition</li> <li>• Illegal export of hide/skins to neighbors</li> <li>• International environmental standards</li> </ul>

#### Sector Strategic Objectives

- Improve marketing throughout the sector, including better product development and design;
- Improve the skills of the local technicians for greater quality and productivity;
- Greatly reduce amount of toxic effluent from tanneries;
- Improve hide yields and quality in slaughter areas to enhance incomes and use over-capacity.

**Diagram 4: Value Chain of Leather Products Sector**



## 4. Leather Products (Cont'd)

### B. Summary of Primary Sector Selection Criteria

As noted earlier, Chemonics and USAID have agreed that the primary sector selection criteria are opportunities for: (1) sales growth, (2) jobs growth, (3) for women and young adults, (4) PRICE value addition to the sector, and (5) SME suppliers. These criteria are given a double weight beyond their criteria strength factors and covered in summary below for leather products.

<p><b>Sales Growth</b></p> <p><b>Criteria Strength Factor - 5</b></p> <p><i>China's imports of leather products from Bangladesh grew by 54 percent in 2006</i></p>	<p><b>Summary</b> International demand for Bangladeshi leather products, particularly finished leather continues to expand. Increased purchases among the top importers of Bangladeshi leather products present impressive growth. Between 2004 and 2006 Hong Kong increased its purchases by 31 percent, Italy by 28.8 percent, Japan by 14.3 percent and China by 54 percent. Of the 53 export destinations, over 99 percent of all exports are sold to Italy, China, Japan, Vietnam, South Korea, Portugal and Spain. In addition to finished leather, the largest opportunity is for the industry to manufacture consumer products (shoes, bags, leather garments and accessories), since international retailers appreciate Bangladeshi quality and are requesting these products.</p>
<p><b>Jobs Growth</b></p> <p><b>Criteria Strength Factor - 5</b></p> <p><i>Leather product manufacturers employ an average of 350-400 workers each</i></p>	<p><b>Summary</b> The leather industry generates a high number of indirect jobs across the value chain and it presents an important income option to primary livestock producers. However, the industry is moving into further vertical integration and is adding value to finished leather and transforming it into consumer goods. This represents an important job generator in manufacturing of shoes, bags, etc. This sector, composed of 50 leading firms that outsource products from over 2,500 SMEs and purchase product from the 207 tanneries, will continue to grow. While the total number of new jobs has not been estimated, it is foreseen that new factories will be created and will be hiring and training additional employees. Each plant has around 350 to 400 workers.</p>
<p><b>Women &amp; Young Adults</b></p> <p><b>Criteria Strength Factor - 4</b></p> <p><i>70 percent of employees in leather goods factories are women</i></p>	<p><b>Summary</b> Job opportunities for women and young adults are exciting in this sector. The leather sector, particularly the leather goods and footwear manufacturers employ a high number of women, since these represent over 70 percent of their labor force. New plants being developed in this sector will present additional employment opportunities for women and young adults. By working with manufacturers of leather goods and footwear, PRICE can assist with skill development for their employees and assist in further mainstreaming women and young adults. The shoe industry, in particular, is where the highest job opportunities exist. The products are in high demand and the factories require a high number of employees since their work is labor intensive.</p>
<p><b>Value Addition</b></p> <p><b>Criteria Strength Factor - 5</b></p> <p><i>The leather industry is moving further into producing final products</i></p>	<p><b>Summary</b> The value addition opportunities for PRICE in this sector are directly related to the sector gaps noted further below. For leather products, these include:</p> <ul style="list-style-type: none"> <li>• Skills development of tannery workers;</li> <li>• Skill development of leather product manufacturers workers;</li> <li>• Market development through buyer visits, trade fairs, direct marketing, etc.;</li> <li>• Improved product design for greater penetration in foreign markets;</li> <li>• Greater linkages with SMEs for outsourcing production;</li> <li>• Pollution reduction of tanneries through public-private dialogue and incentives.</li> </ul>
<p><b>SME Linkages</b></p> <p><b>Criteria Strength Factor - 5</b></p> <p><i>2,500 SMEs currently service the leather industry</i></p>	<p><b>Summary</b> Tanneries, leather goods and footwear companies are currently linked with SMEs where they outsource a wide number of products. The bullish outlook on this sector for upcoming growth will pose a wide array of opportunities for additional linkages with more SMEs. PRICE can assist the industry with SME linkages to enhance efficiencies and provide strategic support. This will include promoting and fostering relationships between small and medium leather shops across the country and the larger exporting factories, so product quality and volume requirements are met and fulfilled.</p>

## 4. Leather Products (Cont'd)

### C. Other Sector Selection Criteria

In addition to the primary sector selection criteria noted above, there are other selection criteria indicated in the PRICE contract, as noted earlier. These criteria are covered in summary below as they relate to both shrimp and fish, with the individual “criteria strength factors” feeding into the sector’s overall score.

<p><b>Sector Gaps</b></p> <p><b>Criteria Strength Factor - 5</b></p>	<p><b>Summary</b> There are numerous significant sector gaps and these were covered in the above SWOT and Constraints and Opportunities pages. However, a quick summary is indicated here:</p> <ul style="list-style-type: none"> <li>• Low productivity from low technical skills of tannery and manufacturer workers;</li> <li>• Low design skills limiting penetration into foreign markets;</li> <li>• Lack of market information on foreign markets for greater penetration;</li> <li>• High pollution from most (not all) tanneries;</li> <li>• Lack of vertical integration with SMEs in supply chain.</li> </ul>
<p><b>Poverty Coverage</b></p> <p><b>Criteria Strength Factor - 4</b></p>	<p><b>Summary</b> While the plants are concentrated in Dhaka, input suppliers (leather depots for raw hides) are located across the country, where they source hides from local producers. This includes small farmers living in high and very high poverty areas. The leather industry positively affects the income of poor people across Bangladesh. For instance, the leather depots located in Kustia and Rangpur are located in high poverty areas with 31 to 37 percent and 37 to 55 percent being below the poverty line, and who can benefit for expansion of the leather industry.</p>
<p><b>Quality &amp; Labor</b></p> <p><b>Criteria Strength Factor - 4</b></p>	<p><b>Summary</b> There are certainly opportunities to improve quality standards across the industry although perhaps not to the degree as in aquaculture and horticulture (i.e. through formal certification). However, improved technical skills and great knowledge of international markets would improve quality. Labor conditions can also be improved through better skilled technical workers at both the tannery and finished product nodes of the value chain.</p>
<p><b>Governance Issues</b></p> <p><b>Criteria Strength Factor - 3</b></p>	<p><b>Summary</b> Governance largely relates to openness, transparency and accountability in looking out for the interest of sector stakeholders. Perhaps the biggest opportunity for PRICE intervention in the leather sector is facilitating a public-private dialogue to reduce pollution from the tanneries in Dhaka. This would help lessen corruption in issuing licenses without investigating the negative environmental and chemical impact in the locality of factories. There is also room for improved governance through promoting quality of work life and reporting the employee status properly in return for PRICE support in accessing foreign markets.</p>
<p><b>Data Availability</b></p> <p><b>Criteria Strength Factor - 3</b></p>	<p><b>Summary</b> In the national accounts, leather and leather products comes under manufacturing sector. The quantity of crust and finished leather is available from production output of tanneries and their input data are also accessible from the average number of animals processed at slaughtering houses across the country and the number of animals slaughtered during <i>Qurbani</i> festival. Production output of leather products (e.g. shoes, leather goods) is available from corresponding industry associations. Finally, the Export Promotion Bureau (EPB) provides export data.</p>
<p><b>Cost-Benefit</b></p> <p><b>Criteria Strength Factor - 3</b></p>	<p><b>Summary</b> The cost-benefits trade-offs for the different sector possibilities, including leather products, were quantified in the scoring methodology noted earlier in this document. This scoring methodology quantified the various selection criteria stipulated in the contract, leading to the recommended sectors of aquaculture, horticulture and leather products.</p>

## 4. Leather Products (cont'd)

### D. Potential Implementation Issues

The sub-sector analysis shall also highlight potential implementation issues such as:

- Initial assessment of environment impact issues that would need to be addressed;
- Availability of or ability to acquire baseline data relevant for performance indicators;
- Indicators for monitoring performance should be measurable, able to be collected in a timely manner, and feasible to track in a dynamic environment;
- An estimated budget for each sub-sector;
- An outreach strategy involving local leaders of influence, and the general public's awareness of and support for PRICE.

<b>Environment Issues</b>	The well known primary environmental issue for the leather products sector is the untreated effluent that is emitted from many of the tanneries. PRICE anticipates dealing with this by (1) only working with those who do not pollute in this manner and (2) working with stakeholders through a private-public dialogue to facilitate the moving of tanneries from Hajaribagh to Savar.
<b>Baseline Data Availability</b>	Based on its analysis at this stage, Chemonics does not envision any issues in obtaining baseline data for possible performance indicators outlined immediately below, such as sales, jobs, investment, etc. This will be explored in more detailed during the development of the performance management plan (PMP).
<b>Performance Indicators</b>	Chemonics does not expect any issues with identifying performance indicators for the leather products sector. While this will be clarified during the development of the performance management plan (PMP) in August, Chemonics expects that the primary indicators will be sales, jobs and investment, reflecting the primary objectives in the PRICE contract. Other performance indicators could be increased farm production, jobs by gender, training participants, etc. At this stage of the analysis, Chemonics does not see any obstacles to having indicators that are measurable, able to be collected in a timely manner, and feasible to track in a dynamic environment.
<b>Estimated Budget</b>	It is difficult to definitively estimate the budget for support for the three sectors, including the leather products sector. However, PRICE expects that aquaculture will require approximately 40 percent of the PRICE contract budget given (1) its importance to Bangladesh in terms of foreign exchange, (2) its employing over one million people, and (3) the fact that it includes both shrimp and fish. Accordingly, this would mean that the remaining budget would be allocated 30 percent each for horticulture and leather products.
<b>Outreach strategy</b>	PRICE will develop its project communication strategy by December 2008. This strategy will include standard communication approaches, including identifying stakeholders (target audience), an appropriate message, communication tools, etc. This will be done for each sector. A unique dimension for leather products, depending on the ultimate work plan, could be an outreach strategy for hide flayers and collection middlemen to improve flaying techniques and post-flaying hide handling to reduce defects to harvested hides, a significant sector problem. Given the "mafia-like" dimension of this part of the value chain, it is not clear if PRICE will work in this area.

## Why not Dairy, Poultry and Jute (and JDP)

Dairy Sector (Score: 63)	Poultry Sector (Score: 62)	Jute (and JDP) Sector (Score: 57)
<p><b>Pros of Sector</b></p> <ul style="list-style-type: none"> <li>• Significant demand/supply gap to exploit (sales &amp; jobs)</li> <li>• Potential for genetic improvement</li> <li>• Clear benefits to women, youth and SME suppliers</li> <li>• Very good geographic coverage</li> <li>• Technical synergies with other sectors</li> <li>• Initial perception of value-added opportunities for PRICE</li> </ul>	<p><b>Pros of Sector</b></p> <ul style="list-style-type: none"> <li>• Significant demand/supply gap to exploit (sales &amp; jobs)</li> <li>• Clear benefits to women, youth and SME suppliers</li> <li>• Very good geographic coverage</li> <li>• Strong synergies with other sectors, particularly shrimp &amp; dairy</li> <li>• Initial perception of value-added opportunities for PRICE</li> </ul>	<p><b>Pros of Sector</b></p> <ul style="list-style-type: none"> <li>• Growing international and domestic market</li> <li>• Grown throughout Bangladesh, covering poor rural areas</li> <li>• Opportunities for value-added products (JDP)</li> <li>• International reputation of Bangladesh jute</li> <li>• Environmentally-friendly product</li> </ul>
<p><b>Cons of Sector</b></p> <ul style="list-style-type: none"> <li>• GoB policy detrimental to improve genetic quality</li> <li>• No real export potential</li> <li>• Long time required for impact</li> <li>• Limited industry leadership?</li> <li>• <u>Less value-added opportunities than first thought</u></li> <li>• <u>\$12 million CARE project funded by the Gates Foundation</u></li> </ul>	<p><b>Cons of Sector</b></p> <ul style="list-style-type: none"> <li>• Avian flu risk</li> <li>• Sector actually appears to be well-developed</li> <li>• Presence of large firms with both horizontal and vertical integration</li> <li>• No real export potential</li> <li>• <u>Inclusion tied to dairy recommendation due to synergies</u></li> </ul>	<p><b>Cons of Sector</b></p> <ul style="list-style-type: none"> <li>• <u>Significant state control</u></li> <li>• Old technology</li> <li>• <u>High production cost structure</u></li> <li>• Very strong government support in competing countries</li> <li>• Lacks research with market focus to develop jute products alternative to products with synthetic materials</li> </ul>

## Annex I: Curriculum Vitae of Calzada, Antonio

### Calzada, Antonio

#### Business Address:

1717 H St.  
Washington, DC 20006  
United States  
Phone: 202 955 7583  
Mobile: [REDACTED]  
[acalzada@chemonics.net](mailto:acalzada@chemonics.net)

#### Home Address:

[REDACTED]  
Phone: [REDACTED]

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Agribusiness, competitiveness and private sector development specialist with more than 18 years of experience in project management, new business development, and consulting. Successful in execution of demand-driven domestic and international activities, agricultural supply and value-chain analysis, knowledge management, market development and research, international trade, business management, and strategic planning in Latin America & the Caribbean, Asia, Eastern Europe, Africa, and the United States. Experienced in designing market-driven development strategies for private sector firms in agribusiness (processed foods, poultry, beverages, and perishable foods) and consumer goods (textiles, furniture, processed oils, canned goods, etc.). Direct experience working with individual producers and Small and Medium Enterprises (SME) to improve their business management skills, analyze sales performance and design marketing strategies along supply and value chains. A technical background in production agriculture, business management and marketing, and identifying best practices and cost-effective measures is complemented by graduate and professional experience in public policy and regulatory and institutional issues.

### EDUCATION

Ph.D. coursework in public policy, Arizona State University (1993), and Virginia Polytechnic Institute and State University (2003).

M.S., agribusiness, Arizona State University, Tempe, 1991.

B.S., agronomy, New Mexico State University, Las Cruces, 1982.

### PROFESSIONAL HISTORY

May 2003-present Director, Chemonics International, Washington, D.C. Provides technical oversight for projects in Paraguay (Paraguay Poverty Reduction Program I and II), Bolivia (Market Access and Poverty Alleviation), worldwide (Worldwide Global Livestock Analysis), and El Salvador (Pro Agricultural Health and Food Safety). As the PMU director on a food safety (SPS) project in El Salvador from 2004-2006, oversaw activities that included bolstering knowledge and training technicians and entrepreneurs to comply with U.S. food import requirements, including implementing HACCP, GAP, and GMP. Created technical group to assist producers to comply with FDA food labeling requirements in El Salvador. As business analyst, conducted agricultural supply and value-chain analysis and provided detailed qualitative information about fertilizer markets in East and Southern (Africa (2007) for Bill & Melinda Gates Foundation to enhance agricultural productivity and reduce food insecurity. As competitiveness specialist, conducted sales analyses and designed marketing strategies for USAID project in Albania (2006) by evaluating value-chains and providing hands-on domestic market linkages and support for SMEs. This included individualized consultancies to diverse producers and processors (olive oil, paper products, ethnic foods, dairy and meat products, poultry, construction, textiles, honey, beverages, and other industries) that resulted in hundreds of thousands of dollars in new sales. Work cited by USAID/Albania Economic Growth Team Leader as example of "outstanding consultancy." As market linkage specialist for USAID projects, provided hands-on support to Salvadoran (2004 and 2005) and Nicaraguan (2004) entrepreneurs and established linkages with international buyers;

leading to multi-million dollar export contracts and sales.

Sep 2000 - Aug 2002 Sales director, Sabe Alimentos, Queretaro, Mexico. Developed the company's central Mexico division for frozen-food product lines. Led market research and development, sales strategies and management, human resource management and training, customer relations, and transportation logistics.

Sep 1996- Sep 2000 International sales manager, Pilgrim's Pride Corporation, USA and Mexico. Provided strategic planning and market targeting for new business development in Central America and the U.S.-Mexican border regions. Developed wholesale clients in Guatemala; and started business relationships with food brokers in Jamaica, South Korea, and Colombia. Managed three marketing and distribution centers across central Mexico with a staff of over 80 people. Serviced retail and wholesale clients, as well as independent wholesalers. Designed and implemented marketing strategies for the feed and pharmaceutical division, gained clientele across the country of Mexico.

Jan 1998 - Jun 1999 Professor of market research and agribusiness market development, Monterrey Institute of Technology, Queretaro, Mexico. Taught undergraduate students market research and agricultural/agribusiness methods, research tools and techniques.

Apr - Sep 1996 Business manager, Grupo Apal, Queretaro, Mexico. Developed new clientele and market opportunities in central Mexico for agricultural inputs (e.g., seeds, fertilizers, and pesticides). Oversaw customer relations, human resource training and management, procurement and logistics management and forecasting, and client assessment. Generated profits of \$640,000 in five months.

Aug 1991- July 1992 Programs and projects specialist, Arizona Department of Agriculture, Phoenix. Assisted Arizona agribusiness companies (citrus, vegetable, wheat, dairy, beef, etc.) in domestic and international trade.

## **LANGUAGES**

Fluent English, native Spanish.

## **PERSONAL**

Mexican citizen and U.S. permanent resident.

## Annex II: Sector Analysis Interview Schedule

Organization Name	Representative(s)	Date (MM/DD/YY)	Sector(s)	Type
Katalyst	P.Roggekamp, F. Nasreen	04/13/08 AM	General	NGO
Hortex Foundation	T.M. Tajul Islam, PHD	04/15/08 PM	Horticulture	NGO
Eurasia Food Processing (BD) Ltd.	Mohammed Ehtemad-Ud-Dowla	04/16/08 AM	Horticulture, Shrimp/Aquaculture	Private firm
SME Foundation	Md. Altaf Hussain	04/16/08 PM	Multiple	Government
Export Promotion Bureau	Md. Shahab Ullah	04/16/08 PM	Multiple	Government
BRAC	Aminul Alam,	04/17/08 AM	Horticulture, Aquaculture, Dairy, Poultry	NGO/Private sector
Japan International Cooperation Agency (JICA)	Mitsuaki Suzuki	04/17/08 PM	Multiple	Donor
Bengal Leather and BFLLEA (Association)	Tipu Sultan	04/20/08 PM	Leather and Leather Products	Private firm and Industry Association
Peninsula Sea Food	Appel Mahmud	04/21/08 AM	Shrimp/Aquaculture	Private firm
PRAN	Kamruzzaman Kamal	04/21/08 PM	Horticulture, Dairy	Private firm
Golden Harvest	Mohius Samad Choudhury	04/22/08 AM	Shrimp/Aquaculture, Horticulture	Private firm
ACI Foods Limited	Bishwajit Roy	04/23/08 AM	Horticulture	Private firm
Square Consumer Products	Md. Obaidul Haque	04/23/08 PM	Horticulture	Private firm
Quality Feeds	Kaiser	04/23/08 PM	Horticulture, Poultry, Dairy	Private firm
BRAC	Md. A Saleque	04/24/04 AM	Horticulture, Aquaculture, Dairy, Poultry	NGO/Private sector
Nowapara Jute Mills	Md. Halibur Rahman Khan	04/24/08 PM	Leather and Leather Products	Private firm
Jenny's International	Md. Mazharul Haque	04/26/08 AM	Leather and Leather Products	Private firm
Elson Foods	Md. Nurul Islam	04/26/08 PM	Food Processing	Private firm
Eshana Jute Products	Mohammed Ahmed		Jute and JDP	Private firm
Jute Diversification Promotion Center	Dr.A.B.M Abdullah	04/26/08 PM	Jute and JDP	Government
Rangpur Dairy and Food Products	Md. Yusuf Abdul Noor	04/27/08 AM	Dairy	Private firm
Ahmed Food Products	Mohammed Ahmed	04/27/08 PM	Horticulture (processor)	Private firm
Aftab Bahumukhi Farms Ltd.	Shah Habibul Haque	04/30/08	Poultry	Private firm
RMP Manufacturer (Pvt.) Ltd.	Raju Ahmed	04/30/08 PM	Horticulture (food processor)	Private firm
Bangladesh Frozen Foods Exporters Association (BFEEA)	Mahmudul Hasan	05/01/08 PM	Shrimp/Aquaculture	Association
Meenhar Fisheries Ltd.	Jamil Ahmed	05/01/08 PM	Shrimp/Aquaculture	Private firm
Sonargaon Hatchery	Nazrul Kader Patwary	05/02/08 AM	Shrimp/Aquaculture	Private firm
Al Sherab Limited.	Annuar Ali	05/02/08 PM	Shrimp/Aquaculture	Private firm
Alawala	Mr. Islam	05/03/08 AM	Shrimp/Aquaculture	Private firm
Bagerhat Dist/ Shrimp	Elias Mahmud	05/04/08 PM	Shrimp/Aquaculture	Farmer Coop - NGO
Bagerhat Shrimp Farms	Elias Mahmud	05/04/08 PM	Shrimp/Aquaculture	Private firm
USAID	Jo, Anuruddha Roy	05/05/08 AM	Sector Selection	Donor Org.
Fresh Food Limited	M. Masudur Rahman	05/05/08 AM	Shrimp/Aquaculture	Private firm
USAID & BSFF	Jo, Anuruddha Roy	05/06/08 AM	Sector Selection	Donor Org, Govt.
Bata	Doug Hearn	05/06/08 PM	Leather and Leather Products	Private firm
USAID	Anne, Jo, A. Roy	05/08/08 AM	Sector Selection	Donor Org.

## Annex III: Stakeholder Meeting Report

<b>Organization Name</b> – Hortex Foundation		<b>Representative(s)</b> - T. M. Tajul Islam, PhD
<b>Type</b>	NGO	<b>Sector(s)</b> - Horticulture
<b>Place</b>	Dhaka	
<b>Description</b>	The Horticultural Export Development Foundation (Hortex) is a non-profit organization that engages in multiple sectors, its origin is based in horticulture which continues to be its major area. The organization works on supply-chain management, and organizes farmers through contract farming to enhance farmers' income. This is needed, since <i>“the commercial system in Bangladesh is from market to market, where products change hands 6-7 times before reaching the final consumer.”</i>	
<b>Opportunities</b>	<p>The agribusiness sector is emerging in Bangladesh, particularly in commercial agriculture, since conditions are favorable for businesses. There are ample opportunities in the input (fertilizers, feed, agricultural chemicals) and output (fruits and vegetables, beef, shrimp) markets. Dr. Islam made particular reference to Bengal Beef, a company engaged in processing beef for the export market, and fresh water “galda” shrimp (produced in small ponds).</p> <p>Poultry, both meat and eggs, are also opportunity areas for growth. <i>“We expect for the poultry industry to add \$8 billion to the domestic market by 2020, as compared to their current \$7 billion contribution.”</i></p> <p>Feed is an opportunity area as there is a large gap between supply and demand. Domestic production supplies less than half of the market demand, and quality needs improvement and its cost must be lower to address buyers' needs.</p>	
<b>Suggestions for value addition</b>	Opportunities are large in processing and freezing foods. “Anything frozen will have more markets.” A good example of a successful exporter of frozen foods is Golden Harvest. Solution for several sectors involves application of technologies under international standards, as it would be directly applicable to the feed sector.	
<b>Growth and Employment</b>	Food processing is where the largest opportunities in general and in particular for women and youth.	
<b>Constraints or comments</b>	<p><u>Comments</u></p> <ul style="list-style-type: none"> <li>• ACME is exporting processed foods to Northern India.</li> <li>• Yield levels for maize in Bangladesh are 7-8 tons/hectare.</li> <li>• The main feed companies include: Paragon poultry, BRAC poultry, DENIM poultry, KAJI farms (produce 60% of feed and 60% of chicks)</li> <li>• In poultry, the largest farm units have 5,000 to 10,000 birds.</li> <li>• In dairy, the average farm is small and consists of 5-10 cows</li> <li>• In beef, there are approximately 20 million cows sacrificed daily and each one weighs an average 200 Kg. One has to be aware that Urea is being fed to cattle to enhance weight gain.</li> </ul>	

<b>Organization Name</b> – Eurasia Food Processing (BD) Ltd.		<b>Representative(s)</b> – Mohammed Ehtemad-Ud-Dowla
<b>Type</b>	Private firm	<b>Sector(s)</b> – Horticulture, Shrimp/Aquaculture
<b>Place</b>	Dhaka	
<b>Description</b>	<ul style="list-style-type: none"> <li>Local food processing company geared 100% for exports. Acts as subsidiary of Euro Foods Group in England, but was established as a joint-venture between British and Bangladeshi investors. Established in 2002/3 for fish and shrimp, in 2003/4 for vegetables. Purchases shrimp/ fish from local fishermen directly and through wholesalers. Outsourced to fishermen characterized by small enterprises.</li> <li>Based on specific requirements/conditions, vegetable farmers grow crops for the company and deliver to the plant.</li> <li>R&amp;D department develops 2-3 product ideas per month based on common Bangladeshi foods geared for ethnic markets abroad. Improve on common products, to make them convenient, user-friendly and sell them mainly to England.</li> <li>300 MT cold storage capacity, enough for one-month inventory.</li> <li>Near-future plans include building a state-of-the-art facility in the Khulna District</li> <li>Eurasia imports cassava from several countries and re-exports 5 containers/ month to England. This crop is not currently produced in Bangladesh, but company representatives view this as an opportunity to strengthen the domestic value chain.</li> </ul>	
<b>Products</b>	<ul style="list-style-type: none"> <li>Fish, shrimp, vegetables and snacks.</li> </ul>	
<b>Market</b>	<ul style="list-style-type: none"> <li>The market, particularly with partner firm poses major opportunity, as Eurasia supplies only about 10% of the British company's needs (the other 90% are purchased/ outsourced in other countries). Since this company has been geared to introduce particular products in the UK market, it uses a price-skimming mechanism that allows it to reap higher earnings while competitors begin producing similar products and then Eurasia adjusts its prices accordingly. The common cycle for this is about one year.</li> <li>Shrimp: UK buyer purchases about 100 containers/ year and Eurasia supplies 40-50. The company has its own distribution system in the UK, Europe and USA. All transactions are based on specific purchase orders by foreign buyers.</li> <li>For price information, the company displays openly the price it pays for shrimp and fish, their major business line. And factory-paid prices apply to all suppliers, including small producers, distributors and wholesalers.</li> <li>Main markets: United Kingdom, Europe and USA; UK is their major consumer.</li> </ul>	
<b>Sales</b>	<ul style="list-style-type: none"> <li>In 2007: Shrimp outsource \$16 million, Fresh water fish \$5.8 million, Vegetable and snacks \$2.9 million</li> </ul>	
<b>Employment</b>	<ul style="list-style-type: none"> <li>350 full time and 1,000 seasonal employees. About 70% of all employees are women.</li> </ul>	
<b>Constraints</b>	<ol style="list-style-type: none"> <li>High cost of finance (14-18% with commercial banks) <ul style="list-style-type: none"> <li>Eurasia recently applied for soft loan with donor agency for € 2 million that if approved would require payment in 2 years with a 2% service fee.</li> <li>No particular intervention is foreseen in this area at the moment, since the possible European loan would satisfy the company's needs. Additionally, the company has resources and credit lines with an array of local banks.</li> </ul> </li> <li>Capacity to process additional products. <ul style="list-style-type: none"> <li>Current capacity is being utilized under current methods and additional capacity – for shrimp – is being developed in an upcoming new plant in the Khulna District.</li> <li>A possible intervention would be to assist this company with their current plant; possibly with streamlining processes, improve product flow, enhance throughput for existing equipment, etc. Such a change could represent a possible 7-10% increase in processed volume and therefore a direct increase in sales due to their unmet demand. This would also increase the number of jobs in the plant.</li> </ul> </li> <li>Insufficient sourcing of products <ul style="list-style-type: none"> <li>To outsource additional products, PRICE can work with farmer groups to supply products for the company. This includes a wide range of products across sectors from shrimp/aquaculture to horticulture.</li> </ul> </li> </ol>	

<b>Organization Name</b> – SME Foundation	<b>Representative(s)</b> - Mohammad Altaf Hussain	
<b>Type</b>	Government	<b>Sector(s)</b> - Multiple
<b>Place</b>	Dhaka	
<b>Description</b>	Independently run government agency under the Ministry of Industries. Its objective is to help SMEs grow, reduce poverty and increase economic growth. Their view is that in such a densely populated country, large industries failed and SMEs are identified as the ideal vehicle for economic growth; especially since there are larger opportunities for jobs. Their task, as implementers of the GOB 2005 policy and following the country's Poverty Reduction Strategy, they view SMEs as the vehicle to achieve the goals. The Foundation helps provide financing, provides macro and micro services, it works with medium-sized companies and identify challenges encountered by SMEs. They build capacities for SMEs and provide them with technology. They also view PPP (Public-Private-Partnerships) as a building mechanism for SMEs.	
<b>Opportunities</b>	They suggest agro-based sectors like Jute and agro-processing Foods.	
<b>Suggestions for value addition</b>	Agro based as Jute Diversified products and food (ready to eat or further processed) products	
<b>Growth and Employment</b>	These reside in SMEs, rather than in large companies.	
<b>Constraints or comments</b>	<u>Challenges faced by SMEs:</u> <ul style="list-style-type: none"> <li>• Adding value</li> <li>• Adapting technologies</li> <li>• Be cost-effective</li> <li>• Lack of market information and about market channels.</li> </ul>	

<b>Organization Name</b> – Export Promotion Bureau	<b>Representative(s)</b> - Md. Shahab Ullah	
<b>Type</b>	Government	<b>Sector(s)</b> - Multiple
<b>Place</b>	Dhaka	
<b>Description</b>	The Export Promotion Bureau is a national export promotion agency within the Ministry of Commerce. EPB works with multiple sectors and identified 25 commodities with export potential and selected 14 from 14 Districts. Their goal is to work at the District level to reduce poverty by promoting economic growth. The model, mirroring the Japanese development model, is to have 1 product per district.	
<b>Opportunities</b>	What is needed is export diversification	
<b>Suggestions for value addition</b>		
<b>Growth and Employment</b>	Based on the commodities identified by EPB. Agar root (Sylhet District) is being exported to the Middle East, where it is imported by UAE. The raw material is exported and EPB is motivating more farmers to plant this crop (takes 5-6 years to grow). Crabs (Khulna District), organic tea, terracotta. In order to reduce poverty and create more jobs, it is necessary to create more sectors; divert to the manufacturing sector from the agricultural sector.	
<b>Constraints or comments</b>	<u>Challenges.</u> The agricultural sector has huge technical barriers for international trade under SPS. Domestically, the sector needs to feed all 150 million people. The average family now consists of 5.5 people, land is a scarce resource. <u>Next steps with EPB.</u> Mr. Ullah requested for PRICE to send them a letter with its intention areas (selected sectors) and they will convene a meeting with adequate stakeholders. And they will want for PRICE to bring buyers to the next meeting.	

<b>Organization Name – BRAC</b>		<b>Representative(s) - Aminul Alam</b>
<b>Type</b>	NGO/Private sector	<b>Sector(s) - Horticulture, Shrimp/Aquaculture, Dairy, Poultry</b>
<b>Place</b>	Dhaka	
<b>Description and Products</b>	<p>Large organization composed by multiple businesses and units. The company started its operations in 1971/72 and it is Eurepgap Certified.</p> <p>Products include vegetables, fruits, seeds, shrimp, poultry, seeds and dairy. Pioneer in contract farming where farmers are guaranteed an amount upon harvest. Poultry Business is vertically integrated. BRAC sells chicks, feed, vaccines, and animal medications to farmers and its financial company provides them with credits.</p> <p>Supply gaps identified by BRAC for several food products in Bangladesh include: Agricultural seeds - 8% (92% gap). Fisheries – post larvae - 12.5% (87.5% gap). Broiler - 80% (20% gap). Artificial insemination cattle - 32% (68% gap). Green fodder - 30% (70% gap). Meat (all types) - 15% (85% gap). Eggs (36 eggs vs. 104 needed) 35 % (65% gap)</p>	
<b>Market</b>	<p>The company sells its products in domestic and international markets.</p> <p>Domestic: Seeds, shrimp PL, poultry, dairy, fruit seedlings, and vegetables.</p> <p>Export: Fresh vegetables for export include okra, French bean, bitter gourd and are sold in Italy, France, UK, Dubai. Potatoes are sold in Singapore and Malaysia.</p> <p>In Europe and Dubai, they have been able to find buyers willing to purchase their fresh vegetables, but they can not compete on price. To Dubai, for example, India supplies quicker and at lower prices. The products from BRAC also generate small margins for buyers in Dubai. Therefore, the buyers are not interested in displaying and handling the product properly.</p> <p>However, their exports are conducted through brokers – Bangladeshi buyers in those countries – and do not reach the foreign buyers.</p>	
<b>Sales</b>	Sales volumes were not made available.	
<b>Employment</b>	It employs 60,000 full-time and about 100,000 seasonal employees. About 23-25% of all employees are women. Their goal is to increase this percentage to 50%.	
<b>Constraints</b>	<ol style="list-style-type: none"> <li>1. Corruption is a major problem within government organizations. Electricity is a major issue due to constant power interruptions and corruption is high within the electric company. For example, a \$70,000 to \$75,000 bribe could reduce the annual cost by \$400,000.</li> <li>2. Shipment issue on perishables. BRAC depends on the Bangladeshi airline. <ul style="list-style-type: none"> <li>• This carrier usually has space problems and its availability for cargoes is unpredictable. There is high level of corruption in this airline. The government subsidizes its airline freight by 25%.</li> <li>• Foreign carriers are more reliable but freight costs with them are very high and cause BRAC to be non-competitive.</li> <li>• Comparison: to Italy, domestic carrier charges \$1.74/ Kg, while foreign carriers charge \$2.6/Kg.</li> <li>• Thus, timing to deliver to buyers is critical.</li> </ul> </li> </ol>	

<b>Organization Name</b> – JICA – Japan International Cooperation Agency		<b>Representative(s)</b> - Mitsuaki Suzuki
<b>Type</b>	Donor	<b>Sector(s)</b> - Multiple
<b>Place</b>	Dhaka	
<b>Description</b>	<p>JICA is the development agency from the Government of Japan. Their focus areas include health, education, disaster management, environment, etc. The organization works on supporting 6 industries, including software and jute, where these areas were selected and JICA helps the GOB with pilot projects. In software, they match up Japanese and Bangladeshi businesses to set up a bridge on business systems/customs language. In jute, they work with BJMA and particularly with 4 mills, where they introduced a continuous improvement system – KAISEN – that was developed by Toyota.</p> <p>They are preparing a master plan to diversify exports and will have it ready by early 2009. The plan will be adaptable to other sectors. The study covers 13 sectors with market potential. JICA works in several sectors (high-tech, garment, pharmaceuticals, etc.) that include Jute, Agro processing and shrimp.</p> <p>BSTI – Bangladesh Standards and Testing Institution is the government organization in charge of setting standards for food and drinks. Companies must receive a license from BSTI in order to export.</p> <p>In shrimp, to assure quality exported to Japan, a Japanese company built a subsidiary to do its own quality testing in Bangladesh.</p>	
<b>Opportunities</b>	<p>Jute, an old industry and is hence equipped with obsolete machines. Mill owners can't buy new equipment and only purchase/replace spare parts. In order to have good quality on these parts, they import 70-80% of the parts. JICA works with the GOB to create the support industry to produce the parts.</p> <p>Agro processing and jute is part of the work they selected. This includes organic tea. JICA representatives suggested for PRICE to meet with JETRO (Japan External Trade Organization) representatives to learn about Japanese companies working in Bangladesh. JETRO is analyzing other possibilities under the 1 village, 1 product model.</p>	
<b>Suggestions for value addition</b>	Agro processing related to further processed foods.	
<b>Growth and Employment</b>	Agro processing is identified as a high growth and employment generation area in general and in particular for women and youth.	
<b>Constraints or comments</b>	<p><u>Challenges</u></p> <ul style="list-style-type: none"> <li>• Jute mills have obsolete machines and constantly import replacement parts</li> <li>• Safety of Bangladeshi shrimp is questioned internationally</li> </ul>	

<b>Organization Name</b> – Bengal Leather and BFLLEA (Association)	<b>Representative(s)</b> – Tipu Sultan
<b>Type</b>	Private firm and Industry Association
<b>Place</b>	Dhaka
<b>Description</b>	<p><u>Leather industry.</u> This is an agro-based industry and supply of hides comes from farmers who are spread across Bangladesh. The majority are small producers in villages where each may have 2-4 cows and a few goats.</p> <p>There is a large opportunity for the leather sector based on international demand. This includes finished leather (tanneries), shoe manufacturing and leather goods (jackets, bags, etc.). After the garment industry, this is the sector with the highest opportunity for jobs, particularly in the shoe industry; since a large proportion of shoe manufacturing involves hand-labor.</p> <p>There are approximately 206 tanneries, 42 shoe factories and 11-12 leather goods (bags) companies concentrated in Hazaribagh, the western section of Dhaka.</p> <p>About 95% of the leather makers are in Dhaka. The industry is growing.</p> <p><u>Company.</u> Tannery involved in the production of finished leather and it exports about 99% of its production. It started in 1982 after the tannery was privatized. For inputs, the company has its own buyer who selects and purchases its hides. Its monthly production amounts to about 1 million square feet of leather. Most of the leather is produced from cow hides, although they also use some goat skins.</p> <p>Bengal's goal is to sell finished leather directly to shoe factories abroad and is building a plant to manufacture shoes; where Mr. Sultan plans to engage in production contracts with international brands (Payless Shoes, etc.). He already has clients interested in buying shoes from him. This would include previous models (secondary fashion market).</p>
<b>Products</b>	Finished leather.
<b>Market</b>	<p><u>Industry.</u> Finished leather is geared mainly for export markets and the main markets include those with duty free treatment for Bangladeshi leather – European Union, Japan, Australia and Canada. The United States is also an important market and the GOB is negotiating also a duty free treatment with the US. Total leather exports exceed \$400 million per year.</p> <p><u>Company.</u> Mr. Sultan visits international fairs twice per year to promote his leather and to identify new markets/buyers. The company has its own agents in Italy, China and Hong Kong who sell its leather. Italy is the biggest opportunity market and Germany is growing, while the United States has only a few brands. Bengal Leather is used mainly for shoes (ladies, children, men) due to its fine grain.</p>
<b>Sales</b>	The company exports \$20 million USD per year.
<b>Employment</b>	<p>Employees in tanneries are all men, due to the high intensity of the labor requirements (strength needed to carry heavy items). However, about 70% of total employees in leather goods and shoe factories are women.</p> <p><u>Company.</u> Employs 350 full-time male workers.</p>
<b>Constraints</b>	<p><u>Industry:</u> Shortage of raw materials and Financial support to invest on good machinery and technology (LT to improve quality)</p> <p><u>Company.</u></p> <ol style="list-style-type: none"> <li>1. Improve quality by changing existing machinery. Modernizing the equipment would allow the facility to monitor the chemicals used in the tanning process where hides are turned into leather. The company sells to an Italian customer (a tannery) who refinishes the leather and sells it to more sophisticated markets. It would allow the company to reach more demanding customers.</li> <li>2. Tariffs imposed by the government on importation of inputs are high. When the industry was government-owned, they didn't pay tariffs and the industry is looking for a similar arrangement.</li> <li>3. Need more buyers for leather and new buyers for future footwear business.</li> </ol>

<b>Organization Name – Peninsula Sea Food</b>		<b>Representative(s) - Appel Mahmud</b>
<b>Type</b>	Private firm	<b>Sector(s) – Shrimp/Aquaculture</b>
<b>Place</b>	Dhaka	
<b>Description</b>	<p>This is a company that belongs to a group of companies engaged in textiles, yarn, real estate, IT and fishing. Peninsula is directly involved in fishing, processing and exporting sea fish and seafood. The fishing component includes 4 vessels (2 from Thailand and 2 from Denmark) with 450 ton capacity each; where fish and seafood are caught at sea and frozen (IQF) immediately at – 20 °C. Each fish is wrapped individually and boxed in 10 and 20 kg boxes for export. The company operates its fishing activity from the port in Chittagong. Its processing facility is also located in Chittagong and has a 500 ton freezing capacity. The company is 100% export oriented. Under this operational mode, it is allowed to sell 20% of its products in the domestic market. All exports are done by sea and usually utilize OSEAL as its freight company. Transactions are f.o.b.</p> <p>When exporting, the Quality Control Office from the Fisheries Department issues a “Salubrity” (food safety) certificate that is required by importing countries. The inspection is done to every lot through random selection and it takes about 1 week to receive it from the GOB. This agency does not issue the certificate for domestic sales; since it is not a local requirement. Peninsula wants to have all of its product with such certificate, since it complies with rigorous standards and wants to be able to promote it as such domestically.</p>	
<b>Products</b>	Frozen fish and seafood.	
<b>Market</b>	<p>Peninsula’s export destinations include China (main buyer), Thailand, Malaysia and Australia. Its Chinese client purchases Peninsula’s frozen, whole fish, and does further processing (ready to heat and eat products like fish fingers, nuggets, etc.). Peninsula views further processing (adding value) as an opportunity and plans to begin this process in 2009. The company started servicing the domestic market in December 2007 (3 tons) and sells directly to supermarkets, including Agora, Jnan, Lavender, and Price House, provides them with freezers to store and display its products, and has a staff of 33 sales people, including 20 women promoting the products in the supermarkets. Local consumers prefer fresh water fish and the company conducts an awareness campaign on the nutritional superiority of sea fish (Omega-3 fatty acids, etc.) over fresh water fish. Peninsula also sells directly to 5-star hotels in Dhaka, since it has developed a relationship and good reputation with their chefs. Their products are priced higher due to their higher quality, provided by safe handling and their cold chain. As part of its marketing campaign, the company advertises on local newspapers.</p> <p>The sales force is paid a base salary and commission per package sold (5 Taka for 1 kg and 10 Taka for 2 kg packages sold). They sell around 10 packages/day and 30 on high-selling days. They have not received sales/marketing training and if they did, their productivity would increase by 30-50%. There are 16 points of sale in Dhaka. From the initial 3 tons, they now sell 4.5 tons/month, generating 1.5 million Taka (around \$23,000 USD). With training, they could be selling between 2 and 2.5 million Taka per month.</p>	
<b>Sales</b>	The company sold about \$1.5 million USD in 2007.	
<b>Employment</b>	The company has 400 full-time employees and women represent 35% of its labor force. All women are involved in the packaging facility.	
<b>Constraints</b>	<ol style="list-style-type: none"> <li>1. Deficient cold chain in retail outlets</li> <li>2. Customer behavior/preference favors fresh water fish over sea fish</li> <li>3. No food safety – “Salubrity” – certificates issued for domestic sales</li> <li>4. Peninsula needs marketing training for its sales force to increase domestic sales. It currently sells 1.5% (\$23,000 USD) of its product in the domestic market and is allowed to increase to 20% (\$300,000 USD) of its current volume.</li> </ol>	

<b>Organization Name – PRAN</b>		<b>Representative(s) - Kamruzzaman Kamal</b>
<b>Type</b>	Private firm	<b>Sector(s) – Horticulture, Dairy.</b>
<b>Place</b>	Dhaka	
<b>Description</b>	<p>PRAN, the Program for Rural Advancement Nationally, is a firm that is part of a conglomerate of companies (13 companies and 10 factories) working in a variety of sectors. PRAN is the food and beverage division and was established in 1981. The company is the industry leader in contract farming and all its activities are conducted through this mechanism. It has over 10,000 contract growers who produce mangoes, pineapples, tomatoes, chilies, rice, etc. PRAN offers a buy-back guarantee to its producers, provide extension services to farmers and provide seeds, fertilizers and training. It is the largest agro processor in Bangladesh, is ISO 9001 certified and complies with HACCP and HALAL standards.</p> <p>The juice and drink division started in 1993 and they package in all types of presentations (canned, bottled, tetra-pack, etc.).</p> <p>The company went through a major expansion during the last 5 years and is building its production capacity. Its short-term focus is now on marketing to consolidate its investments. Its biggest challenge is in dairy due to scarcity of milk. Their new company, Bangla Limited, is providing extension activities to 10,000 farmers.</p>	
<b>Products</b>	Juices and drinks, confectionary, carbonated soft drinks, dairy products, snacks, culinary (teas), and household items. Juices are their top selling product category.	
<b>Market</b>	<p>The group started exporting to France in 1977 and now exports its products to more than 70 countries in 6 continents. It has sales offices in India, UAE and Africa and has its own market promoters in those countries to create further demand for its products. They also do advertisement in those markets. Its main market is India. It has received the “Best Exporter Award” six consecutive years.</p> <p>It also sells its products in the domestic market, but low per capita income in Bangladesh has them focused on export growth through new markets. Domestically, they work through distributors where they provide high quality products and constantly work on improving services to them and give value to final customers. They sell directly to airlines, supermarkets and 5-star hotels. PRAN has ample market opportunities abroad and domestically and works on continuous growth to supply demand.</p>	
<b>Sales</b>	Total turnover for the group is \$200 million USD.	
<b>Employment</b>	It has over 23,000 full-time direct employees. Over 70% of its factory workers are women.	
<b>Constraints</b>	<ol style="list-style-type: none"> <li>1. Scarcity of milk</li> <li>2. Low per capita income in Bangladesh</li> <li>3. Need to become more competitive by reducing production costs, improving new technologies, and decrease price of products to match consumer expectations (especially in domestic market).</li> <li>4. The GOB does not support export or promote Bangladeshi products abroad.</li> </ol>	

<b>Organization Name</b> – Golden Harvest		<b>Representative(s)</b> – Mohius Samad Choudhury
<b>Type</b>	Private firm	<b>Sector(s)</b> – Shrimp/Aquaculture, Horticulture.
<b>Place</b>	Dhaka	
<b>Description</b>	<p>Golden Harvest Agro Industries Ltd and Golden Harvest Seafood &amp; Fish Processing Ltd, are located in the Gazipur and Dhaka districts. These companies process/package vegetables, snacks, fish, shrimp and other food items. The factory was built with support from the Danish Government that provided technical assistance and the supervision for its construction. It is fully computerized and adheres to GMP, HACCP and is SGS (Swiss) certified. They are BRC (British Retail Consortium) compliant.</p> <p>The company represents foreign firms as well, including Cargill, and Bungi, and it is a trader for bulk commodities (palm oil, grains, etc.). Its agricultural-based operation started in 2005, is located near Dhaka and produces ethnic vegetables.</p> <p>Golden Harvest has one major certified supplier of fish and shrimp. IDE is working with them to train farmers, but these efforts have not been successful, particularly since the focus was organic production and they don't have products available.</p>	
<b>Products</b>	IQF black tiger shrimp, fresh water prawn and fresh water fish. Frozen vegetables, fruits and processed (ready to cook) snacks.	
<b>Market</b>	Golden Harvest started exporting in 2006 and sells its products in Australia, the United Kingdom and the United States. The focus is the ethnic (Indian, Pakistani, and Bangladeshi) market in those countries and new plans include production of ready-to-eat snacks.	
<b>Sales</b>	Exports for the company amounted to \$500K, \$680K and \$900K between 2006 and 2008. This represents an annual average growth exceeding 30%. Their sales target is to ship 200 containers per year.	
<b>Employment</b>	They have 300 full-time employees and 60% are women. And their target is to employ 90% of women. With their average growth, employment opportunities, particularly for women abound. Next year they could hire at least 100 more women.	
<b>Constraints</b>	<ol style="list-style-type: none"> <li>1. Deficiency of raw materials supply, including shrimp &amp; fish, and organic vegetables.</li> <li>2. Poor fish farming practices cause quality deficiencies. Farmers continue feeding fish until harvest, rather than stop feeding 2-3 days early, and this causes food safety problems.</li> <li>3. Plant operates at 30% of its capacity</li> <li>4. Require soft loans to acquire raw materials during harvest seasons</li> <li>5. Too much government bureaucracy, since it takes up to 9 months to get a permit to export to the EU. While the EU permission is quick, the inspection is conducted by GOB (bottleneck).</li> <li>6. Need to find new foreign buyers</li> </ol>	

<b>Organization Name – ACI Foods Limited</b>		<b>Representative(s) - Bishwajit Roy</b>
<b>Type</b>	Private firm	<b>Sector(s) – Horticulture</b>
<b>Place</b>	Dhaka	
<b>Description</b>	<p>ACI is a large, diversified publicly traded company (conglomerate) that includes health care, agribusiness and consumer brands, and was established in 1992; although its origin dates back to 1971. Agribusiness division includes seeds, fertilizers, agro machines, inputs for livestock and fisheries (vaccines), agrochemicals and pesticides. It is ISO Certified and complies with global standards. It produces/processes salt and flour and its food divisions are certified ISO 22000.</p> <p>Their largest growing segment in agribusiness is their new business on basic spices for domestic and export (ethnic) markets. They implemented improved grinding technology that allows capturing all essential oils and aroma. Their pre-sorting is done at the farm level, as they prefer pre-sorted materials.</p> <p><i>“The big fish in business potential in Bangladesh is agro-based, particularly in spices and fruits” – Ashraf Bin Taj, Business Director, ACI Consumer Brands.</i></p>	
<b>Products</b>	Branded spices.	
<b>Market</b>	<p>They service the domestic market through 500 distributors that are serviced from their 19 depots located across Bangladesh. They have over 800 sales people who conduct direct sales to over 900 retail outlets. Sales people turn purchase orders to distributors who deliver the goods at each retail shop. Their new spice business will allow them to penetrate the market further – down to townships. They are now the second market player in spices (20-25% of market share) and expect to be a strong #2 in one year, and take over the market in 3 years. Their market campaign is based on the purity and cleanliness (food safety) of their spices. Their brand name is PURE and it is 100% hygienic. The size of the branded spice market is about \$24 million USD/year and only covers about 10% of the total spice market.</p> <p>They market in every corner of the country and sell everything through distributors – who make about 5.25% commission on sales.</p> <p>Their plan is to begin exporting spices and will develop their export plan within the next quarter. They plan to attend the RIAT fair in South Arabia (July/August) and also a fair in UK to begin promoting their spices.</p>	
<b>Sales</b>	Their annual volume for basic spices is about 2,300 tons and they want to increase at least from \$4.5 to \$5.3 million USD in sales.	
<b>Employment</b>	They employ 3,500 people in total. The spice factory has 300 workers, including 65% women and over 350 sales people for their food items.	
<b>Constraints</b>	<ol style="list-style-type: none"> <li>1. Consistency of raw materials. Backward linkages to farmers must be consistent and done through contract farming to assure supply of raw materials in volume and quality.</li> <li>2. Price of raw materials fluctuate constantly</li> <li>3. Lack of food processing professionals in Bangladesh. There is no technical knowledge available.</li> <li>4. Efficiency in machinery. Suppliers provide poor servicing.</li> <li>5. Need international buyers for spices.</li> </ol> <p><i>What they would require from PRICE</i></p> <ol style="list-style-type: none"> <li>1. Actual technology support to find right equipment to grind chilies</li> <li>2. Support at the farm level to build knowledge and consistent quality of raw materials. The previous project from Katalyst failed in control and coordination.</li> <li>3. Require support to establish an adequate storage system. Producers and suppliers don't know how to store and handle spices. For instance, they require a maximum humidity in chilies and tamarinds of 10% and receive at 14% humidity. Since the supplier doesn't know how to control humidity, ACI constantly rejects product with 20% humidity.</li> <li>4. Support for exports that would include information on regulatory requirements, processes and systems.</li> <li>5. They want to export to Europe and need new buyers in Italy, UK, Germany (mainstream and ethnic markets)</li> </ol>	

<b>Organization Name – Quality Feeds</b>		<b>Representative(s) - Kaiser</b>
<b>Type</b>	Private firm	<b>Sector(s) – Horticulture, Poultry, Dairy</b>
<b>Place</b>	Dhaka	
<b>Description</b>	<p>Quality Feeds started operations in 1997 and produces and delivers animal feed products for poultry, fish and shrimp through 11 regional offices, 5 depots and 650 agents. Its feed mills are located in Gazipur (30 km away from Dhaka) and Bogra (in the north).</p> <p>There are about 52 feed mills in Bangladesh, and their combined production is about 1 million tons per year. The top 10 mills market their products through distributors.</p> <p><u>Poultry</u>. Avian Influenza greatly affected the poultry sector (44 of 66 districts) and 25% of the crop was lost. The future is not very promising if biosecurity measures are not adopted quickly and thoroughly.</p> <p><u>Dairy</u>. The dairy industry is not very structured. Cattle breeds need improvement and it is being conducted slowly by several private enterprises (BRAC, PRAN). About 95% of the market is for fluid milk and this is a cash market that is not fully serviced.</p>	
<b>Products</b>	Feed for poultry and dairy in mash and pellet form and fish in pellet form. Shrimp feed, however, is imported and resold domestically.	
<b>Market</b>	<p>Service the domestic market through its regional offices, depots and agents/distributors. Most companies sell their products on credit and farmers pay when they sell their crop. Quality Feeds, however, doesn't sell on credit. But their agents, on occasion, extend credit to farmers.</p> <p>So, the credit terms – when available – depend on the production cycle and reflect in 5-6 weeks for poultry, 3.5 months for fish, and 20 days for dairy.</p>	
<b>Sales</b>		
<b>Employment</b>	No information was provided about employment.	
<b>Constraints</b>	<ol style="list-style-type: none"> <li>1. Not getting enough maize for feed production and production must increase</li> <li>2. Deficient warehouse storage for maize. While production for 2008 is expected at 600K tons (a 15% growth from last year) the storage facilities will be challenged.</li> <li>3. Numerous middlemen in maize. It is important to integrate farms to market and reduce middlemen intervention.</li> </ol>	

<b>Organization Name – BRAC</b>		<b>Representative(s) - Md. A Saleque</b>
<b>Type</b>	NGO/Private sector	<b>Sector(s) - Horticulture, Shrimp/Aquaculture, Dairy, Poultry</b>
<b>Place</b>	Dhaka	
<b>Description and Products</b>	<p>Large organization composed by multiple businesses and units. The company started its operations in 1971/72 and it is Eurepgap Certified.</p> <p><u>Vegetables.</u> Processing center located in Tongi, where BRAC invested \$1.2 million in its grading center. Pioneer in contract farming in Bangladesh. Established production/outsource contracts with farmers and a guaranteed price. Pay the agreed amount upon harvest. If the local price is higher, producers sell to other buyers and if it is lower or equal to BRAC, they sell to BRAC.</p> <p><u>Fruits.</u> 16 nurseries that produced 10-15 million mango and guava seedlings in 2007.</p> <p><u>Seeds.</u> Produce about 80% of the hybrid <u>maize</u> seed in Bangladesh and approximately 50% of hybrid seed for <u>rice</u>. Also, they produce <u>vegetable</u> (hybrid okra, bitter gourd and cucumber) seeds. They have 4 rice seed farms, 3 maize farms and 2 vegetable seed farms.</p> <p><u>Shrimp.</u> They produce PL (post-larvae) in their 8 hatcheries located in Khulna (about a 1.5 hour drive from Dhaka).</p> <p><u>Poultry.</u> Vertically integrated poultry business. Includes 6 hatcheries producing 1.8 million DOC (day-old-chicks) per month, a slaughter/processing plant that produces 3-5 tons/day (at an average processed weight of 1.0 Kg, they process about 4,000 broilers/day), 3 feed mills, 1 diagnostic laboratory. While BRAC is one of the poultry processors in Bangladesh, the total market consumes over 95% of broilers by purchasing them live on traditional markets and either slaughtering them at home or at the place of purchase. Cost of feed is an issue, since it is 20% higher than in Thailand due mainly to the low level of maize production and the high level of imports (50:50). The average feed to meat conversion ratio is close to 2:1 and the goal is to achieve 1.7:1 (as in neighboring countries).</p> <p><u>Dairy.</u> They are doing artificial insemination on cattle. While local breeds produce about 2 liters/day, high-breed dairy cattle produces about 25. BRAC produces semen and also imports semen to improve local breeds. The goal is to reach a 7 liters/day average. This would represent a 250% growth in production.</p> <p>Their biggest business is microfinance and their portfolio includes 140,000 women borrowers.</p> <p>Supply gaps identified by BRAC for several food products in Bangladesh include:  Agricultural seeds - 8% (92% gap). Fisheries – post larvae - 12.5% (87.5% gap). Broiler - 80% (20% gap). Artificial insemination cattle - 32% (68% gap).  Green fodder - 30% (70% gap). Meat (all types) - 15% (85% gap). Eggs (36 eggs vs. 104 needed) 35 % (65% gap)</p>	
<b>Market</b>	<p>The company sells its products in domestic and international markets.</p> <p>Domestic: Seeds, shrimp PL, poultry, dairy, fruit seedlings, and vegetables.</p> <p>Export: Fresh vegetables for export include okra, French bean, bitter gourd, sold in Italy, France, UK, Dubai. Potatoes are sold in Singapore and Malaysia.</p> <p>Although in Europe and Dubai buyers are willing to purchase their fresh vegetables Brac prices are too high. To Dubai, for example, India supplies quicker and at lower prices. BRAC also generate small margins for buyers in Dubai, hence buyers are not interested in displaying and handling the product properly. Exports are conducted through Bangladeshi buyers (brokers) in those countries – and do not reach the foreign buyers.</p>	
<b>Sales</b>	Sales volumes were not made available.	
<b>Employment</b>	It employs 60,000 full-time and about 100,000 seasonal employees. About 23-25% of all employees are women. Their goal is to increase this percentage to 50%.	
<b>Constraints</b>	<ol style="list-style-type: none"> <li>1. Corruption, Electricity</li> <li>2. Need more international buyers and actually reach the buyers</li> <li>3. Need direct access to buyers in currently serviced markets. These include Italy, Germany, Singapore, Malaysia, Dubai and Abu Dhabi.</li> <li>4. Shipment Issues</li> </ol>	

<b>Organization Name</b> – Nowapara Jute Mills		<b>Representative(s)</b> - Md. Halibur Rahman Khan
<b>Type</b>	Private firm	<b>Sector(s)</b> – Jute and JDP
<b>Place</b>	Dhaka	
<b>Description</b>	<p>The company was established in 1967 with 250 looms and 15 ton capacity per day. It was nationalized in 1971 and privatized in 1983. The current capacity is 50 tons/day from its 2 factories. It is 100% export oriented. The plant operates at full capacity.</p> <p>They are looking to increase twine production and need to procure machinery in mid-2008 to produce an additional 15 tons/day of twine; their most profitable product. Their buyer/partner in Germany is directly requesting this volume.</p> <p>The company purchases jute from local traders who buy from the primary market. According to them, their quantity requirements do not allow them to go direct to farmers or farmer associations/organizations. They purchase from 30 traders and purchase in increments of 60 tons of raw jute. While the main jute harvest takes place between July and December, the company stores its annual raw inputs in its own warehouse. Farm yield is 0.9 tons per hectare.</p> <p>There are 157 jute mills in the country and 100 in operation producing 450 tons per day. The barrier to enter in this industry is high due to the high investment necessary (\$1.5 million for a plant with equipment) and the sector is composed of traditional families involved.</p>	
<b>Products</b>	Hessian cloth, bags, second bags, yard, twine, printed bags, rot proof and fire retardant cloth and bags used for wall coverings. Twine yarn is used in the carpet industry and Hessian cloth for potato sacks.	
<b>Market</b>	<p>Their best market is Germany, but they also export to US, Canada, Turkey, Belgium, Iran and Spain. They have 9 existing buyers and all their product is sea shipped in containers. The company received the “National Export Trophy” from the GOB.</p> <p>In addition to the increased 15 daily tons of twine for Germany, they are also increasing production capacity in their general factories from 50 to 62 daily tons. And they expect to be producing 100 tons/day in 5 years. Their growth expectation is linked to government-owned mills closing down and not servicing the market and Nowapara Jute Mills is trying to capture the percentage of supply that is being lost.</p> <p>Their main competitor in international markets is India, but clients prefer the Bangladeshi quality. International buyers are now requiring ISO 9001 certification from suppliers.</p>	
<b>Sales</b>	In 2007, the company sold 11,000 tons of products for \$10 million USD and shipped 700 (40 ft) containers. In 2008, they expect to ship 13,000 tons; an 18% growth over last year.	
<b>Employment</b>	The plant has 30 male employees and 9 of them are full-time. In this business, immediate growth does not translate directly into addition jobs at the factory due to high mechanization and low labor requirements.	
<b>Constraints</b>	<ol style="list-style-type: none"> <li>1. Decreased jute production, since farmers are less involved in jute production, since they chose cash crops that generate higher income for them. Jute mills are now fighting to capture the production during peak seasons (July, August, September and October) and could face a supply problem.</li> <li>2. High interest rates in commercial banks</li> <li>3. World demand for jute is limited</li> <li>4. Must increase efficiency in the factory by improving worker skills (training necessary). There are archaic production methods that require upgrading.</li> </ol>	

<b>Organization Name</b> – Jenny’s International		<b>Representative(s)</b> – Md. Mazharul Haque
<b>Type</b>	Private firm	<b>Sector(s)</b> – Leather and Leather Products
<b>Place</b>	Dhaka	
<b>Description</b>	<p>Jenny’s International is a tannery that purchases crust leather and finishes the tanning process and supplies its sister companies, Jenny’s Shoes and Five-R Footwear, and also exports finished leather. Jenny’s Shoes started in 1992 and Five-R Footwear in 2005. Mid-level exports began in 2003.</p> <p>This company is 100% export oriented and has its own bonded warehouse. With that orientation, they are allowed to sell 20% of their products in the local market and 80% must be exported. It is the only company making fashion shoes. The GOB provides a cash incentive for exports that represents 15% of the export value. However, it takes about 1 year to get the refund back and the 15% is based on a fixed export value established by the GOB: \$20/pair of shoes. Since a large amount of their shoes are sold at higher prices, the refund represents an incentive for about 40% their exports.</p> <p>Their main sector affiliation is with the BLFMEAB association.</p>	
<b>Products</b>	Finished leather and leather shoes.	
<b>Market</b>	<p>The company exports 95% of its products to Japan and its main export product to that market is leather shoes. They also export to Canada, Australia, UK, Greece, Germany, Poland, France and Italy. “To export to Japan, everything must be perfect.” During the first quarter of 2008, they sold 71,300 pairs of shoes to their main client in Japan, ABC Mart, and 1 piece of 1 box was incorrect. This is a customer of 6 years and they cater to him constantly. The Japanese consumers follow the Italian models (design and style) with Italian leather (that is their level).</p> <p>The domestic market is growing for them and they service it through their 23 retail outlets. For 2008, their goal is to increase the retail outlets to 50 and double their domestic sales.</p>	
<b>Sales</b>	Annual shoe sales amount to \$7 million USD, including \$4 million in exports and \$3 million in domestic sales. If the quality constraints are solved and they are able to have trained personnel, their export sales could increase by as much as 140% (to \$9.6 million). Their domestic market, on the other hand, is expected to double in 2008 to \$6 million.	
<b>Employment</b>	<p>The factories employ 600 people and 80% are women. Retail outlets employ 150 people and the vast majority is men.</p> <p>In addition to their production, they provide their own designs to small shoe factories and contract with them 100% of the shoes they need for the domestic market. Their SME linkage includes 10 factories that employ an average of 45 people each (450 total) and about 40% of them are women. As they double their retail capacity in 2008, they will also double their contracts with small factories.</p>	
<b>Constraints</b>	<ol style="list-style-type: none"> <li>1. Need importers/buyers in other countries</li> <li>2. Need help on marketing, update their website, conduct product promotion and redesign an appealing company image.</li> <li>3. Need expert workers for its footwear manufacturing. In Five-R, for example, they have 140 workers and need between 450 and 500 to meet their buyers requests.</li> <li>4. In need to develop a training center for footwear employees</li> <li>5. The need a highly qualified technician for quality control and can’t find the level needed in Bangladesh.</li> <li>6. Excess capacity in the plants. In Jenny’s Shoes, for instance, the capacity is for 3,000 pairs per day and is only producing 2,000 due to lack of qualified personnel. Due to quality constraints, Five-R produces 500, when it could be producing 3,000 pairs per day.</li> </ol>	

<b>Organization Name</b> – Elson Foods		<b>Representative(s)</b> - Md. Nurul Islam
<b>Type</b>	Private firm	<b>Sector(s)</b> – Food Processing
<b>Place</b>	Dhaka	
<b>Description</b>	Family-owned and operated and self funded. Started in 2001. The company grew from a vision to replace imports of high selling candies and drinks (mostly geared for children) by manufacturing them locally. With a background in Chemistry and Food Processing and the vision to conquer the market, Mr. Islam and his family started a business that grows fast and strong.	
<b>Products</b>	Candies, drinks, chocolates, chewing gum. Mini fruit gels – lychee fruit – is their top selling item. Chocolates are a new line item.	
<b>Market</b>	Dedicated 100% to domestic market. Has own marketing network composed of over 200 distributors and its own sales team (130 sales people – all men). Their market niche has been to produce high-selling food and candy products (import substitution). Interested in foreign markets and sent product samples to Dubai, Mauritius, Trinidad & Tobago and Singapore. And exports to India, Pakistan and West Bengal are expected to begin in the short-term.	
<b>Sales</b>	Previous year sold approximately \$23 million USD. With chocolate line, sales for 2008 expect to average \$5.3 million/month. (over 170% growth).	
<b>Employment</b>	Employ over 450 people with 90% women. High sales growth in domestic and soon the export market pose this company to double or triple the number of employees within 2-3 years.	
<b>Constraints</b>	<ol style="list-style-type: none"> <li>1. Unfair competition from importers who undervalue invoices</li> <li>2. High import tax on ingredients – 140%</li> <li>3. No proper guidelines on labeling and packaging</li> </ol>	

<b>Organization Name</b> – Eshana Jute Products		<b>Representative(s)</b> – Mahfuzul Hoque
<b>Type</b>	Private firm	<b>Sector(s)</b> – Jute and JDP
<b>Place</b>	Dhaka	
<b>Description</b>	This is part of several firms owned by Mr. Hoque. The company processes and exports raw jute and manufactures and exports jute diversified products. Jute diversification started in 2002.	
<b>Products</b>	Raw jute and JDP (bags of different types)	
<b>Market</b>	Exports to Australia, Sweden. Germany and other European countries (28 in total). About 80% of his exports go to Vietnam. Company sells to an agent representing 5 jute mills from China and to another representing 6 mills from Vietnam. Mr. Hoque’s son is in charge of marketing and attends international fairs to promote jute and seeks opportunities for JDP. They visit fairs in Frankfurt, Italy, Nepal and Dubai. They are currently promoting their JDP with buyers in London, Australia and Canada and are seeking a contract with Carrefour for shopping bags. Their freight cost per bag to the US is \$0.10	
<b>Sales</b>	They export to 28 countries about \$6 million per year in raw jute and about \$150K of JDP.	
<b>Employment</b>	In the jute plant, they employ 200 male employees. Opportunities to include mostly women employees are in JDP.	
<b>Constraints</b>	Production of jute decreases, as farmers switch to more rewarding crops. In 1 “bigha” (approx. 1/3 acre), farmers can produce 800 kg of rice and obtain 20 Taka/kg, while they can produce 600 kg of jute and obtain also 20 Taka/kg (this year’s prices). Marketing is a bottleneck for JDP and need market linkages overseas Government supports jute exports with 7.5% subsidy, but do not promote exports of JDP	

<b>Organization Name</b> – Jute Diversification Promotion Center		<b>Representative(s)</b> - Dr. A.B.M. Abdullah
<b>Type</b>	Government	<b>Sector(s)</b> – Jute and JDP
<b>Place</b>	Dhaka	
<b>Description</b>	<p>“The environment of Jute is the environment of Bangladesh”. This government agency is in charge of promoting the production of final/consumer products manufactured from jute fibers. Farming of jute requires 103 labor days for a marginal farmer who produces from 20 to 200 kg. Jute processing is slow and archaic, when it takes 100 men days to produce 1 ton, it only takes 50 in India and 29 in China.</p> <p>Why should farmers produce jute? After 3 years of rice farming, for example, 1 year with jute replenishes the soils’ fertility. No modernization has taken place in jute farming in Bangladesh – same as 300 years ago. In jute, price is controlled by buyers, not by large producers.</p> <p>In JDP, Turkey and Belgium are the leaders. A program with GTZ in Bangladesh created some market opportunities in JDP.</p>	
<b>Opportunities</b>	<p>Countries are banning synthetic fibers and materials that enhance pollution problems. UK, Japan want 1 million shopping bags made of jute.</p> <p>“International buyers with purchase contracts will be the beginning to improve the value chain in jute”</p> <p>Links between JDP manufacturers and farmers need to be established to build capacities. While JDP is producing thousands of units, the market demands millions.</p>	
<b>Suggestions for value addition</b>	<p>Value additions are in JDP, where production of final/consumer products will provide higher income earning possibilities; particularly for SMEs.</p> <p>More investment is needed. For every \$1 invested in jute, \$8 are invested in other sectors.</p>	
<b>Growth and Employment</b>	<p>Most jute farmers are women and enhancing production provides further employment (self employment) for them. About 1/5 of all Bangladeshis are directly or indirectly involved in the jute sector and there are over 3.5 million jute farmers.</p>	
<b>Constraints or comments</b>	<p><u>Constraints</u></p> <p>The sector needs restructuring. Farmers associations, contract farming, marketing interventions, product diversification.</p> <p>A warehouse facility with rating technology is needed.</p> <p>Public sector is bureaucratic and lacks adequate management</p> <p>Private sector – there is no corporate culture</p>	

<b>Organization Name – Rangpur Dairy and Food Products</b>		<b>Representative(s) – Md. Yusuf Abdul Noor</b>
<b>Type</b>	Private firm	<b>Sector(s) - Dairy</b>
<b>Place</b>	Dhaka	
<b>Description</b>	<p>The company was established in 2003 and began working in the dairy sector in late 2006. They collect milk, have a “society” (producer groups) that provides them with milk. Milk comes directly from the farmers to the factory. Their chilling centers are serviced directly by 120 communities with 10-15 farmers each. In one month, they will add 130 more communities and will have 6 additional chilling centers. They do contract farming. To support and enhance production, they import feed from India, Thailand, Vietnam or Australia and Denmark, as well as other inputs that they sell to farmers at cost. They process the milk. Their main business is in Dhaka, Chittagong and Sylhet. Their plant is located in Mithapukur (North), one of the poorest areas, with a capacity of 50,000 liters per day. However, they only get 15,000 due to difficulties in milk collection in the Rangpur district. Their breakeven point is 30,000 liters/day. And they have a warehouse in Dhaka. “This is a very green field for business and there are lots of opportunities in dairy “</p> <p>There is a huge gap between supply and demand. Dairy production for farmers provides additional income. Most of them are women (who care for the cattle).</p> <p>By June they plan to be manufacturing juices, candy, chewing gum. This is a diversification plan to offset the current losses in milk.</p>	
<b>Products</b>	Fluid milk and milk-based drinks and dairy products (ghee). Soon, they will also produce and sell juices, candies, gum.	
<b>Market</b>	<p>The focus is the domestic market. They sell their milk through their network of distributors who deliver directly to retail shops.</p> <p>Market gap - the demand for milk in Bangladesh is 500,000 liters per day and the supply is about half.</p> <p>Daily production by competitors includes 200,000 (Milk Vita), 70,000 (BRAC) and 30,000 (PRAN) liters.</p>	
<b>Sales</b>	Annual turnover is approximately \$20 million USD.	
<b>Employment</b>	At the factory they have 210 employees (50% women) and 150 sales people (only 3 women in the team). They are building a new plant and will be hiring 300 more people. This will represent in at least 150 new jobs for women and the rest will include a high percentage of young adults.	
<b>Constraints</b>	<p>Milk collection in the Rangpur district is difficult.</p> <p>Underutilized capacity in the plant</p> <p>Local feed is costly and lower quality than imported feed</p> <p>Deficient green fodder for cattle</p>	

<b>Organization Name – Ahmed Food Products</b>		<b>Representative(s) – Mohammed Ahmed</b>
<b>Type</b>	Private firm	<b>Sector(s) - Horticulture (food processor)</b>
<b>Place</b>	Dhaka	
<b>Description</b>	<p>Family-owned and managed company producing starch (pharmaceutical grade), corn flour from local maize. They also import a variety of products that are further processed and sold domestically and exported.</p> <p>This is the only company producing corn starch.</p> <p>They are switching from importing to purchasing more locally-produced inputs.</p>	
<b>Products</b>	Corn starch, corn flour, tomato paste, jellies, soy sauce, fruit juices (orange, apple)	
<b>Market</b>	Exports products to UAE, India and Nepal, where they have their own agents. Through sub-agents, they service European markets. The company is very bullish on both domestic and export market opportunities, as they experienced 30% growth in the first quarter of 2008.	
<b>Sales</b>	Data on sales was not provided	
<b>Employment</b>	They have 175 full-time employees (80% women) in the plant. Their sales force consists of 47 people (10% women).	
<b>Constraints</b>	Insufficient maize available	

<b>Organization Name</b> – Aftab Bahumukhi Farms Ltd.		<b>Representative(s)</b> – Shah Habibul Haque
<b>Type</b>	Private firm	<b>Sector(s)</b> - Poultry
<b>Place</b>	Dhaka	
<b>Description</b>	Largest integrated poultry company in Bangladesh. In their feed plant, they produce feed for poultry, dairy and fish. Their operation begins from grandparent poultry stock (only one in the country) to fully cooked meat. They use Hubbard breed. They produce 3.2 DOC per month and 10% is reared in their own farms. They process 3,000 broilers per day, while their capacity is for 10,000. Their area of concentration is in the Kishorganj district. There are 4 million people directly involved in the poultry sector.	
<b>Products</b>	Sell inputs (DOC, feed, etc.) and processed chicken.	
<b>Market</b>	The domestic market for broilers is 80% for live birds and 20% for processed chicken. A PR campaign is ongoing to strengthen perception of food safety among consumers in favor of processed poultry.	
<b>Sales</b>	No sales data was provided	
<b>Employment</b>	They have 1,500 employees (about 200 women). In contract farming they have about 4,000 farmers (100% of broiler and 70% for breeders) and 50% of the farmers are women. No immediate growth is foreseen, as they are working to regain their position as it was affected by AI. Their main investment is in contract growing and opportunities for women in particular will be in farming (as entrepreneurs) and in the processing facilities.	
<b>Constraints</b>	Not all materials are available to produce feed, so Aftab needs to reformulate rations often. Need expert on processing plants who knows about international standards. Need to improve nutritional facts with alternative ingredients in feed.	

<b>Organization Name</b> – RMP Manufacturer (Pvt.) Ltd.		<b>Representative(s)</b> – Raju Ahmed
<b>Type</b>	Private firm	<b>Sector(s)</b> - Horticulture (food processor)
<b>Place</b>	Dhaka	
<b>Description</b>	Company started in 1999 as agro processors, producing pickled products (mango, garlic, mango chutney). Manufacturer, exporter and importer of food items. The company is 60% export oriented.	
<b>Products</b>	Drinks, pickles, jelly, noodles, chips, diabetic atta (39 products).	
<b>Market</b>	Exports pickled products (jack fruit, mango) to the US and India. Mostly export to ethnic supermarkets in South Africa, Nepal, Sudan, India and US. Sells direct to importers and to local buyers who export. Export volume decreased from 20 containers every 3 months to 1 container per year after 9/11. The domestic market, due to low per capita income, is not good for the company; since its products are consumed as appetizers and not as main food items.	
<b>Sales</b>	Current, lower volume, represents \$60,000 per month (mainly due to sales of Lychee drink)	
<b>Employment</b>	200 employees, including 175 women. Also 10 male sales representatives in Dhaka	
<b>Constraints</b>	Deficient technology at the plant and needs to improve efficiency High cost of bank loans (15-18%) Need new markets	

<b>Organization Name</b> – BFFEA – Bangladesh Frozen Foods Exporters Association		<b>Representative(s)</b> – Mahmudul Hasan
<b>Type</b>	Association	<b>Sector(s)</b> – Shrimp/Aquaculture
<b>Place</b>	Cox’s Bazar	
<b>Description</b>	There are over 150,000 shrimp farms in Bangladesh and over 30,000 hectares of shrimp ponds in Cox’s Bazar. The entire industry is export-oriented. The focus is on high-value food products. Production is characterized as extensive and the shrimp is considered natural.	
<b>Opportunities</b>	Big demand for farming to increase production	
<b>Suggestions for value addition</b>	Suggest that value addition is to come in cooked, marinated, ready to heat and eat or ready to cook and eat, further processed products.	
<b>Growth and Employment</b>	Growth is foreseen in value added processing where employment opportunities will be geared mostly for women.	
<b>Constraints or comments</b>	Low demand and lower prices in the US market, which is mainly a timing issue. Should improve marketing in different areas of the US and reach additional buyers. Markets need to be diversified.	

<b>Organization Name</b> – Meenhar Fisheries Ltd.		<b>Representative(s)</b> – Jamil Ahmed
<b>Type</b>	Private firm	<b>Sector(s)</b> - Shrimp/Aquaculture
<b>Place</b>	Cox’s Bazar	
<b>Description</b>	Shrimp processing firm that is not involved in farming. They purchase shrimp directly from 20-25 middlemen, who in turn provide financing to farmers and buy from them. The latter have a good relationship with the farmers and also with the processor. When the plant worked directly with farmers lost millions of Taka over 20 years ago. The company’s cold storage capacity is 200 tons and the production capacity is 18 tons/day. Their entire product is sold frozen and raw. The company has a HACCP program and has BRC (British) certification on food safety. In Bangladesh, about 70% of the plants’ capacity is not utilized. Market prices are set by the international buyers and the sequence of prices in the value chain follows that price. Prices for Bangladeshi shrimp have decreased, as prices for other food items continue to increase.	
<b>Products</b>	Frozen raw shrimp in block or IQF	
<b>Market</b>	The US is their main market, where they sell 60% of their shrimp. Demand has decreased for black tiger shrimp, since buyers now request smaller-sized shrimp and offer lower prices. They also sell to UK, Belgium, Germany – who pay better than US buyers. The company sells to wholesalers. Head-on shrimp are only sold now to Europe and represent 10% of total sales. The company participates in international fairs – Boston and Brussels.	
<b>Sales</b>	Export \$10.5 million per year	
<b>Employment</b>	At the processing plant, they work with labor contractors who supply the processing people – about 150 and 50% are women. The company has 100 full-time male employees in charge of loading and unloading cargo, drive the trucks, etc.	
<b>Constraints</b>	Cyclones and bad weather threaten harvests. Need more markets and more competition. <u>Additional note:</u> Mr. Ahmed is a certified HACCP trainer and provides training to many processors of different food & beverage products. Sponsored by the WHO, he trains people across Bangladesh, mainly in Dhaka, on HACCP.	

<b>Organization Name</b> – Sonargaon Hatchery.		<b>Representative(s)</b> – Nazrul Kader Patwary
<b>Type</b>	Private firm	<b>Sector(s)</b> - Shrimp/Aquaculture
<b>Place</b>	Cox’s Bazar	
<b>Description</b>	This shrimp hatchery produces PL (post larvae) shrimp that are sold to farmers. They purchase the brood (mother shrimp) that are captured by trawler boats and are ready for spawning. These are released in holding tanks until they lay eggs (1.5 million in a single spawn). Eggs are washed and hatch in 8-10 hours. They are later grown in larvae-rearing facilities. Brood without eggs undergo artificial maturation to develop ovaries. About 40-60% of all PL fry is produced from eggs (in hatcheries), the rest of wild-caught. PL is packaged and sold to farmers; transported by road for local farmers and the majority is air-shipped to farms in Khulna.	
<b>Products</b>	Shrimp larvae (PL)	
<b>Market</b>	Domestic to shrimp farmers.	
<b>Sales</b>	Sales were about \$1.8 million (at previous average prices) and now should be around \$600,000 to \$700,000 per year. But production costs now exceed market prices and short-term growth is not foreseen.	
<b>Employment</b>	The hatchery has 2 units with 100 male employees in total.	
<b>Constraints</b>	Overcapacity in the hatchery. Could be producing 700 million PL, but produce 500 million (40% less). In 2007, it was producing at 50% capacity. Hatcheries are shutting down. Price of PL has decreased. The production cost is 0.25 Taka each and were being sold at 0.30-0.35 Taka. Now the price is 0.10 Taka.	

<b>Organization Name</b> – Al Sherab Limited.		<b>Representative(s)</b> – Annuar Ali
<b>Type</b>	Private firm	<b>Sector(s)</b> - Shrimp/Aquaculture
<b>Place</b>	Cox’s Bazar	
<b>Description</b>	Established in 2001, this is a shrimp hatchery producing PL (post larvae) shrimp that are sold to farmers. <u>At the time of our visit, the hatchery was not operating</u> , but was expecting to start operations in a few weeks. New areas were built recently in expectation of higher market needs, but they are uncertain about the upcoming months. They purchase the brood (mother shrimp) that are captured by trawler boats and are ready for spawning. These are released in holding tanks until they lay eggs (1.5 million in a single spawn). Eggs are washed and hatch in 8-10 hours. They are later grown in larvae-rearing facilities. Brood without eggs undergo artificial maturation to develop ovaries. PL is packaged and sold to farmers; transported by road for local farmers and the majority is air-shipped to farms in Khulna. Farmers are getting about 40% of the desired results due to poor farming practices. And this causes for farmers to receive lower prices and less income. “When exports are good, everyone does well. Right now, exports are not good and everyone is suffering.”	
<b>Products</b>	Shrimp larvae (PL)	
<b>Market</b>	Domestic to shrimp farmers.	
<b>Sales</b>	No sales data was provided.	
<b>Employment</b>	The hatchery didn’t have any laborers at the time, only about 10 male staff members. During production cycles, there have about 150 male workers.	
<b>Constraints</b>	Huge crisis in the shrimp sector caused by smaller and fewer brood. Better quality brood is needed. Trawlers have been catching brood in the same areas for over 10 years. No proper farming/cultivation system in Khulna. It needs to change to a semi-intensive system. And there is no infrastructure in the farms. There are no standards/requirements for farming practices (depth of pond, etc.) Prices are too low in the market and affect the price of PL, and all hatcheries are working in cycles. Hatchery output is about 25% lower than in 2007.	

<b>Organization Name</b> – Alawala		<b>Representative(s)</b> – Mr. Islam
<b>Type</b>	Private firm	<b>Sector(s)</b> - Shrimp/Aquaculture
<b>Place</b>	Cox’s Bazar	
<b>Description</b>	<p>This company produces tilapia fish for the domestic market. They have a hatchery (35 acres), where they produce 300 million fry per year, and grow 2.5 million tilapias under semi-intensive practices. The rest of the fry is sold in Chittagong and Comilla (near Dhaka). The Wild Fish Center brought the genetic material (tilapia) from Thailand. Harvesting takes place all year, since they rotate the size of fish and harvest at 200-250 grams of live weight.</p> <p>They use feed from Quality Feeds, but their feed conversion is too high. Quality of feed is bad and it pollutes the water (reduces oxygen availability), causes less growth in the fish and affects the conversion ratio. With better feed, they could extend the production cycle and grow bigger fish (maximize their profits). But now, grow out is limited to 3 months. Tilapia cultivation is relatively new in Bangladesh – since 3-4 years ago. Production density is about 5 fish/m<sup>3</sup> and translates into 20,000 fish/acre. To increase density, they would need better quality feed, have technical know-how and increase oxygen availability.</p> <p>“This business is less risky than the shrimp business”</p>	
<b>Products</b>	Tilapia fry and fish	
<b>Market</b>	<p>Domestic focus. Fish is mainly locally in Cox’s Bazar (90%) and the rest in Chittagong. The company can’t keep up with the local demand. They sell to wholesalers: small who purchase 20-30 kg amounts at 75 Taka/kg and large wholesalers who purchase by the ton (with a 5 Taka discount/kg).</p> <p>Fry is sold to farmers in Chittagong and Kumila (near Dhaka).</p>	
<b>Sales</b>	Approximately \$600,000 for fish sales and no data was provided on fry sales.	
<b>Employment</b>	They have 70 male employees.	
<b>Constraints</b>	<p>Need technical assistance to improve production methods</p> <p>Need to improve the genetic breed</p>	

<b>Organization Name</b> – Bagerhat District Shrimp		<b>Representative(s)</b> – Elias Mahmud
<b>Type</b>	Farmer Cooperative Society - NGO	<b>Sector(s)</b> – Shrimp/Aquaculture
<b>Place</b>	Khulna	
<b>Description</b>	This is a farmer cooperative society with 5,000 members located in 9 “upizilla” and 75 production units. They produce golda (fresh water shrimp) and they get the mother shrimp from rivers and farmers. But most of the production is for bagda (brackish water shrimp).	
<b>Opportunities</b>	To introduce a new higher-yielding and better selling variety of shrimp, like Harina (from Thailand)	
<b>Suggestions for value addition</b>	Include better yielding varieties that would enhance farmers’ income	
<b>Growth and Employment</b>	<p>Employment at the farm level is low under current practices. Moving into semi-intensive production would generate additional jobs at the farm level. However, these jobs are usually done by males; as they require intense labor and strength.</p> <p>The highest number of jobs in this sector, especially for women are in the processing plants.</p>	
<b>Constraints or comments</b>	Farmers are not well educated and not well informed about production practices and markets.	

<b>Organization Name</b> – Bagerhat Shrimp Farms		<b>Representative(s)</b> – Elias Mahmud
<b>Type</b>	Private firm	<b>Sector(s)</b> - Shrimp/Aquaculture
<b>Place</b>	Bagerhat – Khulna	
<b>Description</b>	Production unit with 350 acres belonging to 4 farmers who work together. Farming under traditional – extensive, natural – method. These farmers as a “society” market their shrimp collectively to gain a better price. There are about 62,000 farmers in Bagerhat, growing shrimp for export.	
<b>Products</b>	Fresh shrimp	
<b>Market</b>	Domestic to agents who sell to processors	
<b>Sales</b>	No sales data was provided	
<b>Employment</b>	Employment at the farm is low, especially under extensive (low input, including low labor) methods and employees in shrimp farms are mainly males.	
<b>Constraints</b>	Low quality PL White spot and red gill viruses – started when shrimp was imported from Thailand in 1995. Not getting good price for their shrimp – they can never bargain for a better price. Processing firms take most of the profit. Their sales to processors always go through an agent.	

<b>Organization Name</b> – Fresh Food Limited		<b>Representative(s)</b> – Mohammed Masudur Rahman
<b>Type</b>	Private firm	<b>Sector(s)</b> - Shrimp/Aquaculture
<b>Place</b>	Khulna	
<b>Description</b>	Established in 1994, it is one of the largest shrimp exporters in Bangladesh. The education level of administrative and technical staff is very high, since most people have graduate degrees. After farmers harvest, they collect shrimp from selected farms. They pre-select shrimp by testing the water in the ponds, verify farming practices and environmental conditions in order to purchase to assure traceability. Their US buyers request for them to keep records from origin; as part of HACCP. Under current farming practices, farmers harvest based on moon cycles (full or new moon). They also own a company in the US that is focused on the Bangladeshi ethnic market. The company has agreements with certain suppliers and extends credit to them. Farms take loans directly from the bank. They are a “Green Ticket Holder” for the US market, are FDA approved and EU approved. Issues/problems exporting to the US are recent. Bangladesh has been exporting to the US for over 40 years without major problems until now. Vannamie variety from Vietnam, Thailand and India is coming to Bangladesh to make better yields and lower-costing shrimp to compete internationally. The yield is 5 times more than black tiger shrimp and it is setting the international prices.	
<b>Products</b>	Mostly IQF raw and cooked shrimp.	
<b>Market</b>	Fresh Foods Limited exports to the US (52 regular buyers – 50% of exports) and Europe (45 regular buyers – 45% of exports). Russia is a growing market for them and Egypt is growing also. They export to Japan and South Korea. The company sells directly to Red Lobster, who sends its own inspector to the plant prior to shipment; and also sells directly to American Foods.	
<b>Sales</b>	Export \$35 million per year.	
<b>Employment</b>	They have 700 full-time employees (70% are women)	
<b>Constraints</b>	Shortage of raw materials causes underutilization of capacity in the plant (use about 40%). If the company diverted and became integrated into farming with new technologies and intensive production, they could use their full capacity. Cannot fulfill all purchase orders. Farmers don’t have knowledge or experience to apply modern technologies. High level of investment needed at the farm level. Low prices in US market due to new Vannamie variety, weak US economy and high inventories left at buyers’ warehouses in the US remain from 2007.	

<b>Organization Name – Bata</b>		<b>Representative(s) – Doug Hearn</b>
<b>Type</b>	Private firm	<b>Sector(s) - Leather and Leather Products</b>
<b>Place</b>	Dhaka	
<b>Description</b>	<p>Publicly traded company registered in Bangladesh. It is part of a global consortium and one of few foreign investors in Bangladesh and the only international company involved in footwear production.</p> <p>The potential for leather goods is goods and the leather from Bangladesh has a tight grain that represents good quality, especially since cattle is well attended.</p> <p>Once a year about 70% of all livestock is slaughtered during Qurbani- a religious festivity. Leather is not particularly thick due to skinning being done by hand (90% of cases) and flaying creates cuts.</p> <p>Over 50% of cattle is slaughtered in-situ, as there abattoirs are very scarce.</p> <p>There are too many links in the value chain, particularly composed of traders. Tanneries are all concentrated in Dhaka. Leather exports are not as prominent this year as before.</p> <p>Bata has an affluent plant to treat water and cares about social responsibility (they don't have child labor)</p> <p>Since they are not 100% oriented, they don't have access to the 15% government tax rebate.</p> <p>When exporting to Japan, for instance, most companies go through Bangladeshi middlemen also</p> <p>Footwear industry has great potential in foreign markets, especially since China closed over 4,000 shoe factories this year.</p> <p>Bata works with CARE on social responsibility and to reduce poverty.</p> <p><u>General comment.</u> In horticulture, there is great opportunity for growth and employment, particularly in specialized areas (flowers – roses).</p>	
<b>Products</b>	Leather shoes	
<b>Market</b>	Over 95% of their footwear is sold domestically and only export about 150,000 pairs of shoes a year. International sales are done through a local agent to Europe, Japan and the Middle East.	
<b>Sales</b>	No sales data was provided	
<b>Employment</b>	<p>In their factory, they employ 1,500 people and less than 5% are women. They have over 2,000 employees in their retail shops and mostly are male. Stitching is where work is more favorable for women and that type of work is subcontracted with associates.</p> <p>Bata works with over 58 Bangladeshi associates (SMEs) and all their future growth is planned through associates; further linkages with SMEs. Growth plans include to grow from 31 million (07), to 33.5 million (08), to 36 million (09) and over 41 million (2010) pairs of shoes.</p>	
<b>Constraints</b>	<p>GOB creates disincentives for foreign investors</p> <p>New GOB initiative to increase tax collections target formal enterprises that keep records</p> <p>VAT must be paid at production time, so keeping high inventories to tackle market opportunities is a disincentive</p> <p>Skinning must be done mechanically to improve quality of hides</p>	