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BANGLADESH VALUE CHAIN SELECTION AND RAPID ANALYSIS:

A ROADMAP FOR INCLUSIVE GROWTH FOR NON-FOOD VALUE CHAINS

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Project: Bangladesh Value Chain Selection and Rapid Analysis

DISCLAIMER

The author's views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

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ACRONYMS

BADC	Bangladesh Agriculture Research Center
BJA	Bangladesh Jute Association
BJGA	Bangladesh Jute Goods Association
BJMA	Bangladesh Jute Mills Association
BJMC	Bangladesh Jute Mills Corporation
BJRI	Bangladesh Jute Research Institute
BJSA	Bangladesh Jute Spinners Association
FTF	Feed the Future
JDPC	Jute Diversification Promotion Center
JDPPs	Jute Diversified Products Producers
MCC	Millennium Challenge Corporation
MSMEs	Micro Small and Medium Enterprises
OPIC	Overseas Private Investment Corporation (OPIC)
SCA	Seed Certification Agency
USDA	U.S. Department of Agriculture
VCA	Value Chain Analysis

EXECUTIVE SUMMARY

Feed the Future, the United States Government global hunger and food security initiative, supports country driven approaches to address the root causes of hunger and poverty. Through this Presidential Initiative, the U.S. is helping countries transform their own agricultural sectors to grow enough food sustainably to feed their people. This way, valuable food aid can be used for unforeseen catastrophes rather than for chronic food insecurity or predictable cycles of drought or flooding.

In the context of the project design for the FTF program and Economic Growth portfolio to support Bangladesh's southern region, there is need to balance the core food portfolio with non-food agricultural crops that could supplement incomes that support USAID's private sector funding goals. With this in mind, USAID requested that Weidemann and ESPartners conduct two tasks:

1. Value chain selection: narrow down an already short list of four commodities (jute, coconut / coir, bamboo and floriculture), to a priority set of two to three priority value chains.
2. Rapid Value Chain Analysis (VCA): conduct an end market driven assessment of the priority value chains to identify key challenges and solutions that could be implemented by USAID and its partners.

The team identified a portfolio of three non-food value chains for the Southern region; jute, coconut (including coir), and floriculture. USAID / Dhaka prioritized these value chains based on the following five broad criteria:

- Competitiveness potential: a combination of industry growth and Bangladesh's current positioning
- Impact on the poor and MSMEs: a measure of equity and increasing wealth in the target regions
- Industry structure & leadership: the existence of anchor or lead firms to drive industry growth
- Gender & youth: opportunities to integrate these disadvantage groups (especially women) into the VCs
- Environmental impact: assessment of the VCs ability to contribute positively to climate change.

Although USAID sees excellent potential in these chains, bidders should not be obligated to focus on these chains nor be limited by an illustrative value chain analysis. This report is meant to highlight untapped opportunities in the economy of Bangladesh, but given the short duration of this study, these findings may change with additional research and other opportunities which likely exist in other value chains.

Contrary to findings from the desk review and the reputation of Bangladesh as a country with very complicated social and business networks, the team found that the three target VCs functioned relatively well. In general, each level of the three chains typically included multiple buyers and sellers and fairly well structured quality grading systems to reward higher quality with better prices. The team believes that this may have been the result of excellent market access due to high quality feeder roads into rural areas and the relatively high population density of the regions that the team visited. Given the reputation of Bangladesh to the contrary, this conclusion may be mistaken due to the rapidity of the field research and the particular markets that the team visited.

These three value chains form a diversified portfolio in that they exhibit very different characteristics. On one end is jute, a well-established sector in Bangladesh with decades old relationships and marketing channels. Although coconuts are an integral part of the Bangladeshi household economy, the husk of the coconut (coir) has begun resurgence in recent years and has the potential to become a major contributor to wealth and prosperity in the

region. Cut flowers are a relatively small, but high growth sector in Bangladesh, with 70% of national production coming from Jessore, one of the target regions.

Bangladesh is one of the world's leading producers and exporters of jute and jute products. A traditional and well developed value chain; there are millions of Bangladeshis involved with the production and post-harvest handling of jute. Hundreds of established firms transform the raw material into a range of diversified jute products such as yarn, bags, sacks and handicrafts. Tens of thousands of people are engaged in this type of off-farm employment with the majority women (60 to 70%).

Given the size and sophistication of the established players in this sector, USAID could create the most value intervening at 1) producer & input level to address issues around seed supply and the introduction of new jute varieties and post-harvest methods, and 2) marketing & distribution level where a VC intervention could help with export linkages and product design for new, high value added products.

Coconuts represent a massive untapped opportunity for the south. From a smallholder perspective, a coconut tree is the equivalent of having money grown on trees. With almost no expenditure on inputs or other care, a household can harvest a small number of coconuts on a weekly basis, bring them to a local market for sale and use the proceeds to buy food, i.e. the very definition of food security. Moving downstream in the value chain, the most common use of the coconut is to produce relatively low quality oil that is sold on the domestic market for oiling of hair. A number of other secondary products such as the coconut cake and hard shell are also commercialized for a variety of uses from animal feed to mosquito coils and even gunpowder.

A significant and untapped opportunity is to build (or rebuild) the coir industry based on successful models such as Allepey in Kerala State in India which is home to thousands of SMEs that produce a wide variety of products. USAID / Bangladesh could support interventions throughout the value chain from enhancing the productivity of coconut trees, encouraging new SME investment into especially village-based enterprises, and finally new product development and export linkages.

The cut flower industry in Bangladesh is booming. Only a few years ago, Bangladeshis did not have the habit of purchasing flowers as gifts or use for special occasions and ceremonies. Where flowers were required, the demand was mainly fulfilled by imports from India, China, and Thailand. Over the past five years, local production has surged to effectively replace imports with local production. Although the overall market is currently quite small, estimated at \$3 million at wholesale annually¹, most industry players estimate growth at 30 to 40% per annum. At the same time, the inclusive growth story for producers is strong with farmers earning net margins of at least 70 to 80%.²

USAID / Bangladesh could intervene throughout the value chain. At the producer level, farmers are still overly reliant on four main varieties of flowers, so the systematic and scientific diversification of this product portfolio could further enhance revenues and competitiveness. A key challenge in the processing and wholesaling of the flowers is the absence of a cold chain. USAID / Bangladesh would prefer to facilitate an investment by a private operator or partner with other organizations to fill this gap. Finally, accelerating the emergence of a full-fledged "flower culture" and even developing export markets could also be ways to increase the impact of the sector.

In addition to the core value chain actors, each one of the VCs has an existing market system comprised of various service providers (sector specific, cross-cutting, and financial). As would be expected, the maturity of

¹ Source: "Production, Post Harvest Handling and Marketing of Cut Flowers in Bangladesh, an Agribusiness Study", Hasneen Jahan, Department of Agricultural Economics, BAU, July 2009.

² Ibid, n=20 farmers in the Jhikarcha Upazilla, Jessore District.

these ecosystems varies with the level of development of the value chains and will impact the contracting and partnership strategy for USAID in each chain. In the well-developed jute VC, contractual relationships and eventually USAID Forward direct financing are probable given the existing capacity of various providers. In the less developed chains, development of these service providers will likely take some time and moving towards a USAID Forward model of direct financing of local partners which may be challenging in the relatively short timeframe of this project.

Integration of women into these three value chains is a critical issue. On the positive side, women are already engaged in specific components of each value chain, so growth and enhanced competitiveness will create entrepreneurship and employment opportunities for women. However, there are two general factors that are less positive. First is the wage differential for women; i.e. they are paid 50% of men's wages across the board. It is unlikely that USAID can address this through a medium-term VC project, but there have been a few donor sponsored initiatives that have tackled this issue. The second factor would be women's limited access to the knowledge and resources required to identify new business opportunities and pursue them. USAID sees solutions to these challenges as a core component of the VC intervention.

The potential for USAID to accelerate growth in Bangladesh's southern region through the non-food value chains is enormous. The following factors point to success:

- **Vibrant economy:** Khulna represents the archetype second or third tier Asian city that is the future of the region's economies. At 5 million people, massive numbers of businesses, and easy access to rural markets and raw materials, Khulna could be the anchor for economic growth in the region.
- **Dynamic value chains:** as described above, jute, coir and floriculture represent three dynamic and growing value chains that have significant potential upside. Through an end market value chain approach, USAID could facilitate an explosion of entrepreneurship and smallholder income growth.
- **Receptivity:** in most of the sites the team visited, there had been limited, if any donor assistance to these value chains in the region. Compared to more frequented regions, the novelty of USAID project that takes an innovative and private sector approach to building competitive value chains could quickly gain traction and momentum.

As part of the broader Feed the Future initiative and Economic Growth program in Bangladesh, a tight focus on these three value chains could be the core of a Roadmap for Growth that creates competitive firms, creates prosperity and helps one of Bangladesh's poorest regions escape the survival trap of poverty.

I. BACKGROUND – FEED THE FUTURE GLOBAL & BANGLADESH

Although FTF is a major global initiative, Bangladesh is the only Asian country included in the initiative. Widespread extreme poverty and the highest population density in the world make a strong case for FTF intervention in Bangladesh based on need and the potential payoff.

A. Global Feed the Future Initiative

Feed the Future, the United States Government global hunger and food security initiative, supports country driven approaches to address the root causes of hunger and poverty. Through this Presidential Initiative, the U.S. is helping countries transform their own agricultural sectors to grow enough food sustainably to feed their people. This way, valuable food aid can be used for unforeseen catastrophes rather than for chronic food insecurity or predictable cycles of drought or flooding. Under the Feed the Future Initiative, food security is defined as availability + access + utilization.

In response to the global food crisis in 2007-2008, the U.S. Government took swift action by providing more than \$1.5 billion in food and development assistance to meet immediate humanitarian needs and stimulate agricultural productivity in developing countries hard hit by food price increases. These investments served as the foundation for Feed the Future, a \$3.5 billion pledge to work with partner countries, development partners, and other stakeholders to tackle global food security challenges. Reflecting the values of the American people, President Obama announced the initiative at the 2009 G8 Summit in L'Aquila, Italy, where global leaders committed to “act with the scale and urgency needed to achieve sustainable global food security.”

Feed the Future, led by the U.S. Agency for International Development (USAID), leverages the strengths of agencies across the U.S. Government, including the State Department, Peace Corps, Millennium Challenge Corporation (MCC), the Treasury Department, U.S. Trade Representative, Overseas Private Investment Corporation (OPIC), the U.S. African Development Foundation and the U.S. Department of Agriculture (USDA).

B. FTF in Bangladesh

Identified in 2005 by Goldman-Sachs as one of the “Next 11” emerging economies, Bangladesh has both potential as well as severe challenges for agricultural production and food security. In coordination with a range of public, private and development partners, the Government of Bangladesh is committed to establishing a technically sound Country Investment Plan that addresses major constraints to food security, prioritizes interventions, provides a cost benefit analysis and includes working to improve the business enabling environment to reduce hunger and improve nutritional status of the majority of Bangladeshis. Feed the Future, a US Presidential Initiative, offers an opportunity for the USG to showcase Bangladesh as a development model as it links presidential initiatives – Food Security, Global Health and Global Climate Change, Global Engagement -- to help lift its people out of poverty while sharing USG foreign policy priorities in addressing governance and security.

C. Introduction to the Non-Food VC Selection and Rapid VCA Report

In the context of the project design for the FTF program to support Bangladesh's southern region, the need to complement the core food portfolio with non-food agricultural crops that could supplement incomes. USAID requested that Weidemann and ESPartners conduct two tasks:

1. Value chain selection: narrow down an already short list of four commodities (jute, coconut / coir, bamboo and floriculture), to a priority set of two to three priority value chains.
2. Rapid Value Chain Analysis (VCA): conduct an end market driven assessment of the priority value chains to identify key challenges and solutions that could be implemented by USAID and its partners.

The research and analysis were conducted in October and November 2011 by a team comprised of international consultants, local consultants and members of USAID from both Washington, DC and Bangladesh. The team relied on both desk and field research to inform the analysis. The main objective of the analysis is to provide insights into the priority value chains to permit USAID to better design the FTF and Economic Growth investments in the Southern region.

The conclusions of this report should be taken as illustrative and not as strict guidelines for what USAID / Bangladesh would like to implement as part of the non-food VC program. Bidders are encouraged to propose innovative solutions that are not identified in this report for both the target value chains and other chains where implementers see potential for inclusive growth.

II. VALUE CHAIN SELECTION METHODOLOGY AND RESULTS

The value chain selection process used agreed upon weighted criteria to generate a ranking matrix to inform the prioritization. The data used to populate the matrix was a combination of quantitative and qualitative data.

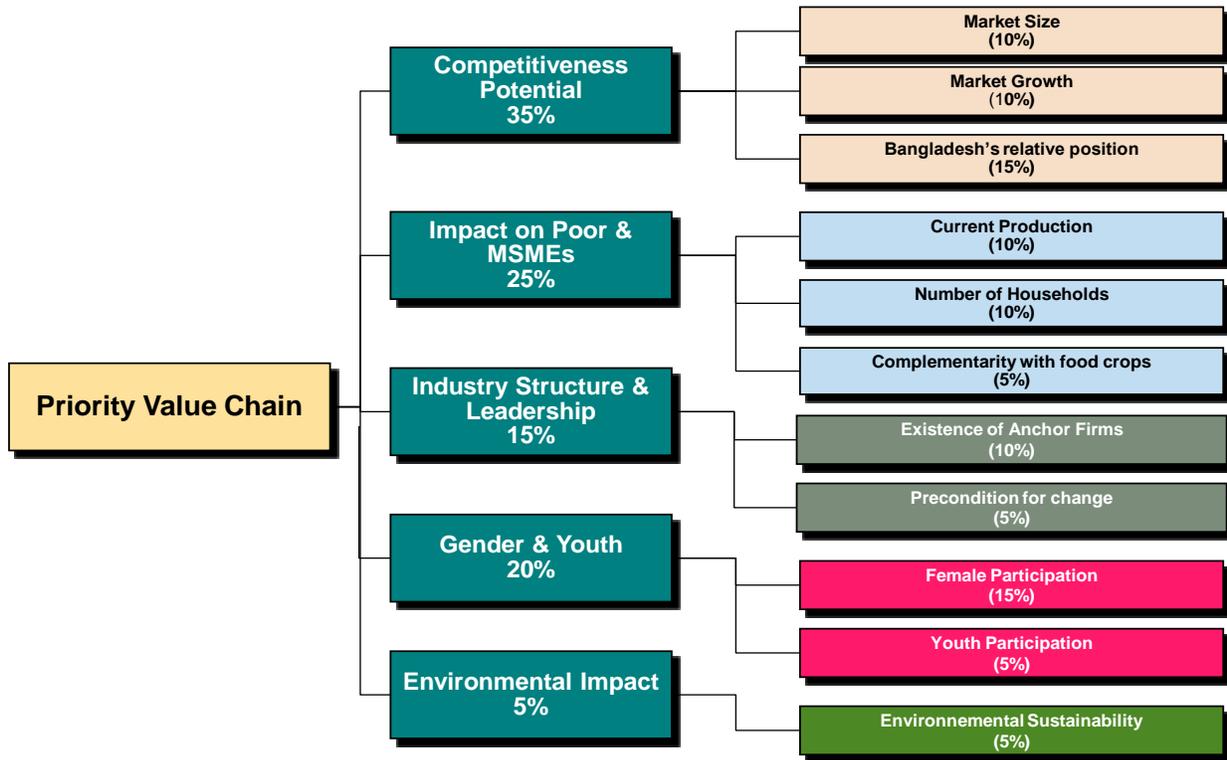
A. Value Chain Selection Methodology

To help inform decision making, the value chain selection process was structured around a prioritization matrix. The matrix has three components:

1. Criteria pre-selected by USAID
2. Weights based on relative importance
3. Scores based on quantitative and qualitative data

As can be seen in the below Illustration 1, 50% of the weight is put on market and private sector based criteria such as overall market size and the existence of anchor firms that can actually drive growth and prosperity for the individual value chains. Another 25% of the weight goes towards impact on the poor and MSMEs, i.e. the equity side of the equation. This combined 75% weighting reflects the importance of identifying and accelerating value chains with the potential for inclusive growth that combines private investment & entrepreneurship with positive impact on smallholders.

ILLUSTRATION I : VALUE CHAIN SELECTION CRITERIA



Based on these criteria, the team identified quantitative and qualitative sources of data to rank each criterion and populate the matrix. For example, the UN COMTRADE database was used to calculate global market size and growth plus Bangladesh’s current competitiveness, so a relatively quantitative and impartial ranking. Most of the other criteria required combining data from various sources including reports, local databases, and then field interviews to arrive at the final assessment. The scoring methodology is summarized in Illustration 2 below.

ILLUSTRATION 2 : VALUE CHAIN SELECTION SCORING SCALE

Criteria	Data source	Weight	Scoring				
Criteria 1: Competitiveness Potential (35%)							
Market Size	TradeMap & Other Reports	10%	Small (less than \$10 million) 1 point	2 points	Medium (\$100 million) 3 points	4 points	Large (\$1 billion or greater) 5 points
Market Growth (annual basis)	TradeMap & Other Reports	10%	Low (>5%) 1 point	2 points	Medium (10%) 3 points	4 points	High (<20%) 5 points
Bangladesh's Relative Positioning	TradeMap & Other Reports	15%	Low (>10% market share) 1 point	2 points	Medium (10 to 50% market share) 3 points	4 points	High (<50% market share) 5 points
Criteria 2: Impact on the Poor & MSMEs (25%)							
Current production	Reports & databases	10%	Low 1 point	2 points	Medium 3 points	4 points	High 5 points
Number of households impacted	Reports & databases	10%	Low 1 point	2 points	Medium 3 points	4 points	High 5 points
Complementarity with food crops	Interview with IFPRI Bangladesh	5%	Low 1 point	2 points	Medium 3 points	4 points	High 5 points
Criteria 3: Industry Structure & Leadership (15%)							
Existence of Anchor Firms	Field visits	10%	Low 1 point	2 points	Medium 3 points	4 points	High 5 points
Preconditions for Change	Team assessment	5%	Low 1 point	3 points	Medium 3 points	5 points	High 5 points
Criteria 4: Gender & Youth Participation (20%)							
Female Participation	Team interviews	15%	Low 1 point	2 points	Medium 3 points	4 points	High 5 points
Youth Participation	Team interviews	5%	Low 1 point	3 points	Medium 3 points	5 points	High 5 points
Criteria 5: Environmental Sustainability (5%)							
Impact on Climate Change	Climate Change Report	5%	Negative 1 point	2 points	Neutral 3 points	4 points	Positive 5 points

B. Value Chain Selection Matrix

As can be seen in the populated value chain prioritization matrix below, jute, coconut / coir and floriculture come out as the three top value chains. In all three cases, the team found dynamic, generally well-functioning chains that combined private sector growth across the scale of MSMEs and excellent market access with excellent income generating opportunities for smallholders and producers. On the less positive side, opportunities for value addition abounded as most downstream processing and retailing happens in Dhaka.

Specifically:

- Jute ranked the highest based on the established criteria. It is a growing market in which Bangladesh--the world's major exporter-- has already built a presence. Bangladesh is also naturally endowed in jute and has developed an industrial base upon which value added products can be designed and sold. Finally, with over 25% of the population already involved in jute, the cost / benefit of a USAID intervention here could be very attractive.

- Coconut / coir is a strong second contender. Entrepreneurs are actively entering the sector to seize on domestic & export opportunities. The multitude of products that can be produced from the coconut provide an opportunity for integrated business models and are already providing strong cash flow for households.
- Cut flowers are enjoying high growth in the domestic market thanks to import substitution and a growing “flower culture” in Bangladesh. That said, overall opportunity is small, but with attractive opportunities for additional income at the farm level.

ILLUSTRATION 3 : VALUE CHAIN SELECTION MATRIX

Criteria	Weight	Value Chain			
		Jute	Coconut / Coir	Bamboo	Floriculture
Criteria 1: Competitiveness Potential (35%)					
Market Size	10%	4	4	5	2
Market Growth (annual basis)	10%	5	3	5	5
Bangladesh's Relative Positioning	15%	5	1	1	4
Criteria 2: Impact on the Poor & MSMEs (25%)					
Current production	10%	5	3	3	1
Number of households impacted	10%	5	4	3	1
Complementarity with food crops	5%	4	5	5	3
Criteria 3: Industry Structure & Leadership (15%)					
Existence of Anchor Firms	10%	5	5	1	4
Preconditions for Change	5%	3	5	1	4
Criteria 4: Gender & Youth Participation (20%)					
Female Participation	15%	3	5	1	4
Youth Participation	5%	3	3	3	3
Criteria 5: Environmental Sustainability (5%)					
Impact on Climate Change	5%	4	3	5	1
Total	100%				
Weighted Total (out of 5)		4.3	3.6	2.7	3.1

C. Justification for the Elimination of Bamboo

Although bamboo is a booming global market and bamboo is pervasive in Bangladesh, there is a disconnect between growing global demand and the domestic sector. Both our desk research and field interviews found a sector that is fairly disorganized and artisanal with a surplus of pessimism about future prospects of the sector due to competition from alternative products for construction and furniture, the two major uses. There have been some niche successes using bamboo in the handicrafts sector, but compared to the potential and dynamism that we saw in the three priority sectors, bamboo is at a clear disadvantage. All of this said, USAID could identify some ideas based on additional research or the identification of a very dynamic partner.

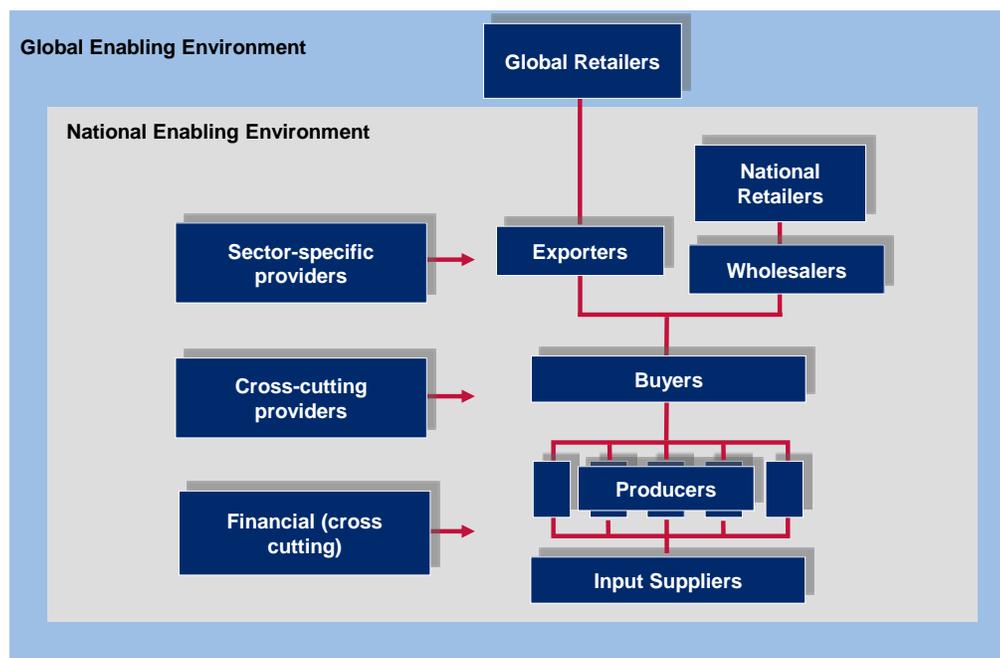
III. OVERVIEW OF THE RAPID VCA PROCESS AND STRATEGIC VISION

The value chain analysis team integrated global best practices in value chain analysis with deep local knowledge provided by the Bangladeshi members of the team and the USAID / Bangladesh mission to perform a rapid, but insightful analysis of the three priority value chains.

A. USAID Value Chain Framework³

USAID’s approach to enterprise development has evolved from facilitating markets for business services to a broader value chain perspective. The premise of USAID’s new approach is that enterprise development can create wealth in poor communities and promote economic growth by sustainably linking large numbers of micro- and small enterprises (MSEs) into international, national and/or local value chains. To achieve this goal, the approach calls for linking small firms to economic growth opportunities, while ensuring both the incentives for and the capability to compete in and benefit from market participation.

ILLUSTRATION 4 : USAID VALUE CHAIN FRAMEWORK



B. Rapid VCA Process Overview

As per the request of USAID, the VCA team used an end market oriented process to conduct the rapid VCA. In line with this concept, the team moved backwards through the value chain from consumer and retailers of the products all the way back to input suppliers. The team structured the process around the following core analyses:

1. End market analysis: drawing on UN COMTRADE data, existing reports and interviews with either customers or value chain actors in close proximity to end markets, the team assessed current market size, projected growth and customer preferences.

³ Source: USAID Value Chain Development Wiki, accessed November 2011

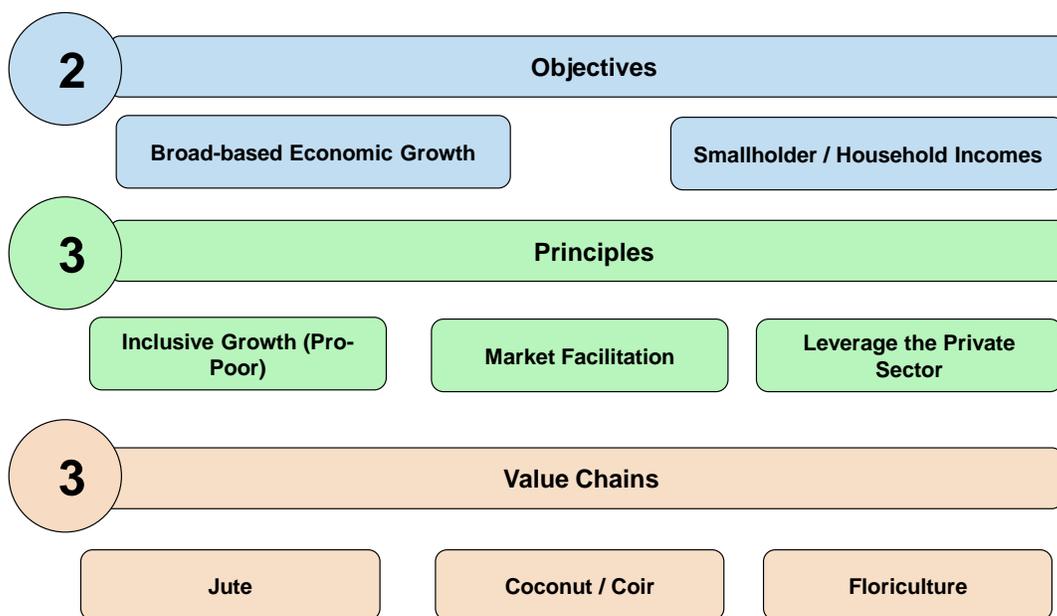
2. Cost bar analysis: in line with dual objectives of private sector competitiveness and benefits to smallholders, the team conducted a rapid cost and margin distribution analysis to identify who is creating value and making money in the three value chains.

C. Strategic Framework for the Non-Food Value Chains

The strategic framework for the non-food value chains is based on the following elements:

- 2 Objectives: Broad-based Economic Growth & Smallholder / Household Incomes
- 3 Principles: Inclusive Growth, Market Facilitation (not direct provision of services) and Private Sector Leverage
- 3 Priority Value Chains: Jute, Coconut & Coir and Floriculture

ILLUSTRATION 5 : STRATEGIC FRAMEWORK FOR THE NON-FOOD VALUE CHAINS



Although these value chains do exist in other parts of Bangladesh, their importance to the region is something that should be underscored. A visual representation of these patterns is found in the map below (illustration 6), but the key examples are:

- Jute: based on the team’s interviews, some of the best quality jute in Bangladesh comes from the Faridpur region, just 90 minutes from Jessore. In addition, there is heavy private sector investment already occurring in this region with multiple jute yarn factories under construction.
- Flowers: 70% of Bangladesh’s current cut flower production currently comes from Jessore making this area a very active cluster in the country.
- Coconut: Bagerhat is awash in coconuts and an emerging cluster of small and medium-sized enterprises to process them.

ILLUSTRATION 6 : STRATEGIC FRAMEWORK FOR THE NON-FOOD VALUE CHAINS



In addition, although vegetables were not part of this study one of the two highest producing vegetable districts in Bangladesh is found just outside Jessore. This tight regional focus should enable USAID target its resources for maximum impact in the region.

IV. JUTE – BANGLADESH’S CASH COW⁴

As one of the world’s leading jute producers and leading exporter, this value chain has the potential to touch millions of smallholders and build the competitiveness of hundreds of SMEs and large businesses.

A. Value Chain Map & Relationships

Jute is a major agricultural industry in Bangladesh with an estimated 1.8 metric tons in production and US \$1.1 billion in exports in 2010 – 2011. At a national level, jute is a major contributor to Bangladesh’s GDP and serves as a cash crop to millions of farmers.

ILLUSTRATION 7 : JUTE PRODUCTION & EXPORT NUMBERS, 2008 - 2011⁵

Year	Production(MT)	Export (MT) (Raw jute only)	Domestic consumption	Export value (USD/BDT)
2008-09	913,000	315,000	685000	0.417 Billion USD
2009-10	1,080,000	315,000	771000	0.787 Billion USD
2010-11	1,877,613(estimated)	455,700	N.A.	1.11 Billion USD

⁴ “Cash cow” is a reference to the BCG Portfolio Matrix. Cash Cows are defined as high market share, low growth

⁵ Source of other data: www.jute.org (IISG website)

Source of export value: http://www.jute.org/worldnews_details.htm

Source of production(Bale): <http://newagebd.com/newspaper1/op-ed/30637.html>

Source of Export (Raw jute only): <http://www.newshoursbd.com/english/2011/09/22/jute-export-gains-momentum-in-bangladesh/>

Faridpur, in the target southern region, is the source of Bangladesh’s best quality jute. This reputation is reflected in the maturity and dynamism of the value chain in this region. Although the end markets were mainly found in Dhaka or overseas, the team found a well-functioning market system and dynamic private firms at every step of the chain as shown in the value chain map below.

The value chain typically begins with input suppliers (seed and other), who supply farmers who come in a range of sizes. These farmers typically sell to a trader (or series of traders) who act as middlemen for either the raw jute exporters or processors. From here, the product flows diverge, with some raw jute leaving the country directly while the balance goes to various processors who typically export it as yarn (a major export), or a huge range of jute diversified goods.

In terms of relationships among the various actors in the value chain, the overall picture is positive with large numbers of buyers and sellers at each step of the value chain. Generally speaking, sellers of jute or jute products have the opportunity to “shop around” and receive the best price possible for their product based on prevailing market conditions and the quality of their product. A couple of exceptions to this rule were:

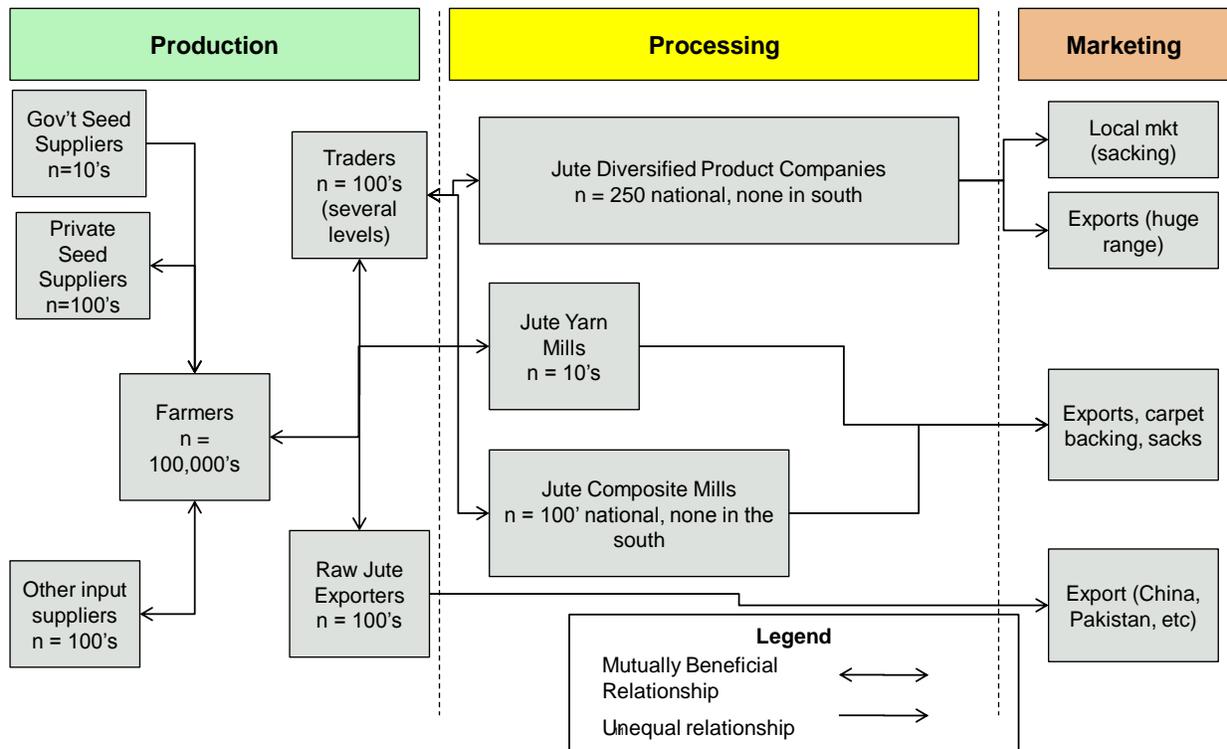
- Government seed suppliers to farmers: because jute is a notified product in Bangladesh, the government holds considerable sway over the licensing of seed imports. What tends to happen is that seed arrives too late for the sowing season and sits for 10 to 11 months in sub-standard conditions where it germinates. This leads to poor quality side, yet farmers have little choice but to purchase it.⁶
- Jute yarn exporters to overseas buyers: although Bangladesh and its exporters are dominant players in the export of jute yarn, they appear to be in some ways price takers in their negotiations with buyers in Turkey and Belgium who use the yarn for carpet backing. This came in the context of the latest downturn in demand because of instability in the Middle East and reduced demand for carpets.

ILLUSTRATION 8 : JUTE VALUE CHAIN, PHOTOS FROM THE FIELD



⁶ “Jute Seed Value Chain Analysis”, Action for Enterprise, XXXXX

ILLUSTRATION 9 : JUTE VALUE CHAIN MAP, SOUTHERN REGION



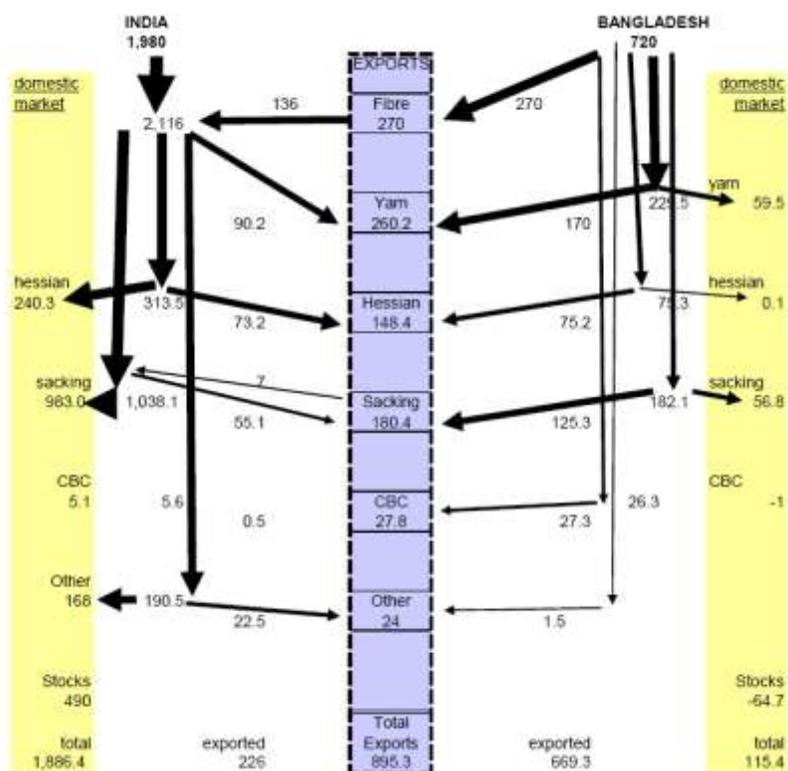
The most important insight about the flow of jute products is from a comparison of these product flows between India and Bangladesh. As descend on the chart, the arrows and their thickness indicate at which stage jute and jute products enter the respective domestic and then export markets. For Bangladesh, there is significant leakage at the level of relatively unsophisticated products such as fiber and yarn. For India, thicker lines terminating lower on the chart indicate a focus on higher value add products.

The diagram below highlights three important issues in Bangladesh's jute sector:

1. Export of raw jute: Bangladesh exports over a third of its jute in raw form, with approximately half going to India. India exports no raw jute.
2. Domestic vs. export mix: only about 15% of Bangladesh's jute is consumed locally vs. over 50% in India. This is mainly due to strictly enforced regulations on jute packaging in India.
3. Deficit of value added products: almost 10% of India's production is high value products, while Bangladesh comes in at less than 2%

This simple analysis shows the opportunity for Bangladesh to move towards higher value added products and create more income and prosperity for firms and smallholders through higher revenues and margins.

ILLUSTRATION 10 : COMPARISON OF JUTE PRODUCT FLOWS, INDIA VS. BANGLADESH⁷



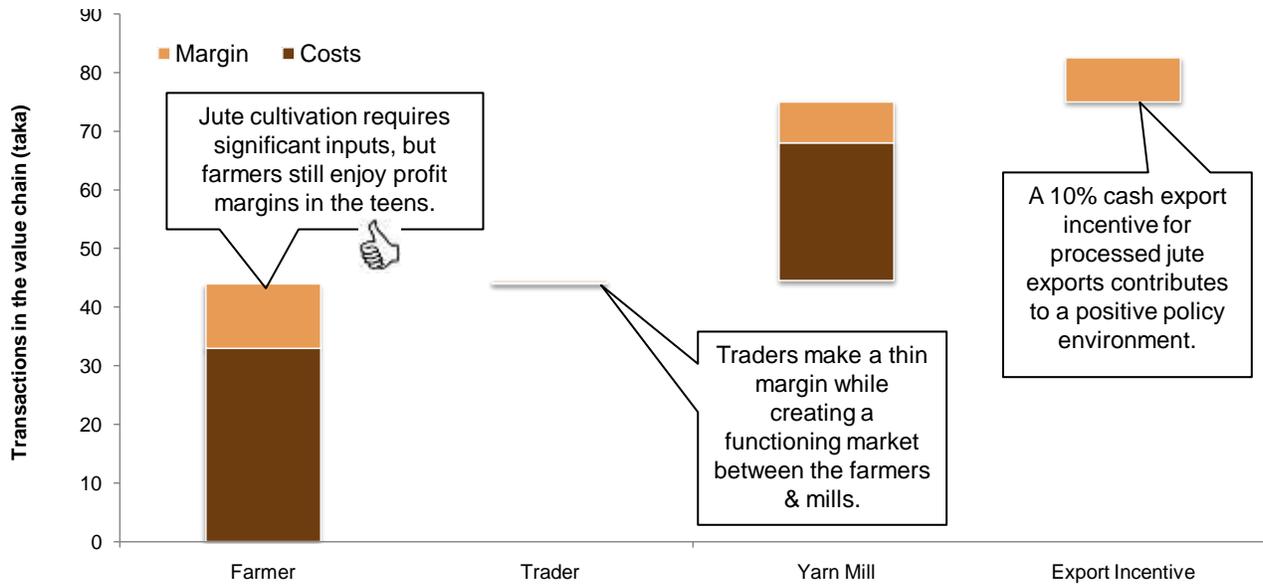
B. The Case for Inclusive Growth – Transactions in the Value Chain

At heart of the rapid VCA is a cost analysis to determine both quantitatively and qualitatively how all actors in the value chain work together (or not) to build products that can be sold for a profit. The approach entailed a review of secondary data to provide a broad understanding of the economics of each value chain followed by a “backwards” journey through the value chain from the end markets to input suppliers to ascertain costs and margins at each stage of the value chain.

The end goal of the analysis was to determine whether or not the value chain offered an opportunity for inclusive growth, i.e. the opportunity for both firms and smallholders to benefit from targeted interventions across the value chain. Our findings are laid following the USAID value chain framework below.

⁷ “A Roadmap for Jute”, UNCTAD WTO/ITC in association with the International Jute Study Group (IJSJ), April 2006.

ILLUSTRATION II : COST & MARGIN ANALYSIS, JUTE VALUE CHAIN



End Markets

A prerequisite for building a competitive value chain is to identify market segments that have the potential or currently show strong growth and the ability to support expanded production by the target chain. Overall, jute appears to be a sector like this. As can be seen in the graphic below, Bangladesh's jute yarn sub-sector has exhibited 15% growth over the past 5 years on an already huge base. As can be seen in the graphic above, the 10% cash export incentive provides a very comfortable margin for exporters of jute products on top of any standard margin that they make in their business.

A driving force behind the growth in the use of jute are skyrocketing prices of petrochemicals which are used in competing products such as plastic bags, yarns and sacking. In addition, a global shift towards natural fibers is also fueling demand for jute and other natural fibers such as coir that are viewed as sustainable and cost competitive in the context of high oil prices.

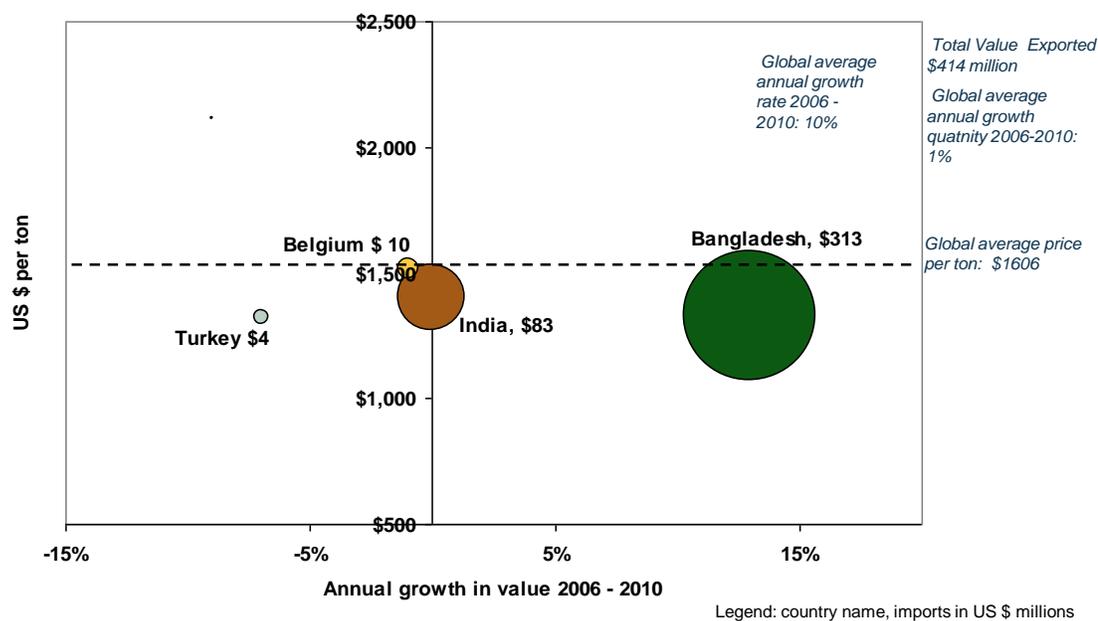
Processing

This export growth is reflected by new investments and the attitude of the private sector. The growth data above is reinforced by the fact that the team identified 4 to 5 new investments into jute yarn facilities in the Faridpur region alone. At \$15 to \$25 million investment per facility, this is a strong indicator that Bangladesh's private sector sees a bright future in the jute sector.

A second sub-sector that exhibited optimism and apparent growth is the high end handicrafts segment. Based on our interviews with progressive exporters, they are seeing significant growth potential for Bangladesh's handicraft sector based on a combination of easily accessible raw materials (i.e. natural fibers), relatively low cost and high productivity labor and innovative high end processing and design. For now, these firms are clustered in Dhaka, but investment incentives could be put in place to bring them to the South.

Key links in the chain are the highly competitive networks of traders that buy raw jute from farmers and then sell it on to the various processors or raw jute exporters. These traders (or series of traders) earn slim margins relative to the overall value of the product (<1% of total revenue), but do make their money on volume and sustaining a 30 to 35% net margin in their business. A typical small trader is estimated to earn 200,000 taka (about US \$2,600) per year, a solid income in rural Bangladesh.

ILLUSTRATION 12 : JUTE YARN TOP EXPORTERS, 2010⁸



Product : 5307 Yarn of jute or of other textile bast fibres of hd no 53.03
 India Price per ton estimated at \$1400

13

Producers

In the southern region alone, hundreds of thousands of farmers are engaged in jute production as part of their annual crop cycle. Although jute cultivation requires relatively high expenditures on inputs compared to the other value chains studied by the team, farmers still appear to earn net margins in the high teens as shown in the cost bar analysis above.

At the producer level, again, there seems to be a well-functioning market system. In the micro-region that we visited, farmers had the choice to sell to over a hundred traders with fairly well defined prices per “mound” (40 kg) of raw jute fiber based on different quality levels. This type of tiered pricing seemed to encourage the farmers to provide high quality raw material based on available seeds, inputs and the retting process (post-harvest fiber extraction). Some of the larger farmers were able to hold their product for months after the harvest season to benefit from greater scarcity and therefore higher prices.

As noted above, Faridpur produces some of the best jute in Bangladesh. However, not far south in Jessore, water issues have a serious impact on the retting process and degrade quality. There could be an opportunity to introduce improved, water efficient retting processes such as ribbon retting. Another opportunity to increase production is to introduce saline resistant strains of jute in the coastal areas of the target region based on new varieties currently being promoted by Bangladesh Jute Research Group (BJRG).⁹

As can be seen in the cropping patterns table below, in the target areas of the south, an important factor with jute is that it is inter-cropped with winter vegetables and is therefore complementary with the FTF objective of a more diversified diet with vegetables. Depending on the type of land, jute may compete with rice / fish integration or sesame and groundnut production.

⁸ Source: TradeMap, accessed October 2010.

⁹ Source: Rapid VCA team interview with BJRI, October 2011

ILLUSTRATION 13 : CROPPING PATTERNS IN BANGLADESH¹⁰

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Lowlands	Rabi crops (cont.): Maize, watermelon, onion, chili, pulses, oilseeds				Rice/fish integration			Rabi crops (beginning)				
					Sesame, groundnut, jute							
Medium elevation lands	Rabi crops (cont.): Maize, watermelon, onion, chili, pulses, oilseeds			Summer vegetables		HYV <i>aman</i> specialty rice			Rabi crops (beginning)			
	Rabi crops (cont.): Maize, watermelon, winter vegetables, onion, chili, pulses				HYV <i>aman</i> specialty rice			Rabi crops (beginning)				
Highlands	Cotton (cont.)				Summer vegetables, jute			Cotton (beginning)				
	Perennials (banana, papaya, sugarcane) intercropped in the first rabi season with pulses, oilseeds or vegetables											

Input Suppliers

At the input supply level, there is reportedly a major issue around seed supply as describe in a recent Action for Enterprise report.¹¹ The basic issue is that the government licensing system for seed import is so cumbersome that the vast majority of the seeds arrive too late for the sowing season. They are then stored in sub-standard conditions until the following year at which point, germination becomes problematic. What is contradictory here is that the farmers themselves did not identify procurement of seed as a major constraint to growth.

Service providers *(sector-specific, cross-cutting, financial)*

Beyond the core value chain actors, service providers play a key role in enhancing the competitiveness of the industry. As a traditional sector in Bangladesh, jute boasts a deep and well-developed set of both public and private sector organizations that conduct research, provide technical assistance, financing, advocacy support and a range of other services. In relative terms, this “ecosystem” of service providers is relatively well-developed compared to the other two priority VCs and should offer ample short- and medium-term opportunities for traditional and USAID Forward locally driven partnerships.

Sector Specific Service Providers *(Knowledge, Information and Training)*

Several government organizations provide different support services to jute industry:

- **Department of Agriculture Extension (DAE)** provides information to farmers through training and demonstration. It also disseminates new varieties and technologies invented by BADC or BJRI.
- **Bangladesh Agriculture Research Center (BADC)** produces jute seeds and distributes to farmers through their own dealer network. It produces seeds through its contract farming system.

¹⁰ “Vegetable Production in Bangladesh: Commercialization & Liberalization”, AVRDC, The World Vegetable Center, 2004.

¹¹ “Jute Seed Supply Value Chain”, Action for Enterprise, May 2011

- **Bangladesh Jute Research Institute (BJRI)** is a research based organization works particularly on jute. They invent new varieties and also jute-based technologies and disseminate to farmers through DAE.
- **Jute Diversification Promotion Center (JDPC)** is another government organization promoting diversified jute products. It assists entrepreneurs in identifying new products, designs and also markets.
- **Bangladesh Jute Mills Corporation (BJMC)** is a government owned mills association. It provides market and price related information to its members.

There are also a number of jute-based private sector associations:

- Bangladesh Jute Association (BJA) is the association of raw jute exporters.
- Bangladesh Jute Goods Association (BJGA) is the association of jute goods exporters.
- Bangladesh Jute Spinners Association (BJSA) is the association of jute spinning mill owners.
- Bangladesh Jute Mills Association (BJMA) is the association of private jute mills owners.

Many of the members of above associations are simultaneously members of several associations. The formation of so many associations is certainly political. However, all of these associations regularly update their members on new technology and market dynamics and some of them also publish newsletters.

Cross cutting services

- **Quality Control:** This service is provided to ensure the quality of the products in different level of the value chain. BADC ensures the quality of its own produced seed. Seed Certification Agency (SCA) controls the quality of the imported seed. At the export level, there are different international certification agencies i.e. SGS, Intertek, Bureau Veritas to ensure the quality of exported goods.
- **Marketing:** Individual mills and JDPPs (Jute Diversified Products Producers) play an important role in marketing of their products. However, BJMC, jute agents and JDPC also work in marketing of the jute and jute goods.
- **Packaging:** Packaging is involved in different levels of the value chain such as in the trader level, mill level and export level. However, packaging in the raw jute exporter level is a bit different than other levels in the chain. There are mainly two types of packaging i.e. kaccha bale and pucca bale. Pucca bale is the one where jute is compressed in one stack and kaccha bale is the one which is not compressed.
- **Transportation:** Different types of transports i.e. boat, truck, ship etc. are used for transportation of the jute and jute goods. In the local level transportation, truck and van are the most common. For export purpose, sea shipping is the only option as air transportation is not cost effective.

Financial Services

- **Commercial lending:** Commercial banks (both government and private) provide banking services to its clients. Usually this service is not extended to the farmers. The major clients are mill owners and raw jute exporters. However, big traders and JDPPs also get this service from the bank.
- **Supplier credit:** This is the form of financial service which is prevalent almost among all the actors involved in this sector. For example, farmers buy seeds from the input suppliers. Local traders buy in credit, and then the mills procure jute on credit. However, the magnitude of credit facility depends on the relationship between them and varies from actor to actor.

Sector specific global and national policy environment

There are a few specific policy issues that have a positive and negative impact on the jute sector:

1. Export incentive: as noted above, exporters of jute products receive a 10% cash incentive based on the FOB price of their products.
2. Seed import licensing system: licenses are currently given to many small importers who don't have the capacity to import in a timely manner nor store seed in a professional way, increasing spoilage rates.
3. Credit constraints for jute mills: As many of the jute mills were taken by government after the liberation war and then transferred back to private owners at a later stage, getting loans for the original private owners is difficult. While under government operation, the mills went into default. Still, those loans have not settled down and the current private owners struggle to get financing. In order to make operation of jute mills financially viable, the debt burden needs to be restructured and written off where necessary. The private mill owners (those which were under government in the middle) have already raised this issue in the recently formed Jute Commission of Government of Bangladesh, but the issue is yet to be resolved.
4. Raw jute export ban: GoB imposed a ban on raw jute export in February 2010 as the local jute mills were facing trouble to procure raw jute due to price hikes. This year in March, government has lifted the ban temporarily due to the increasing global demand. Hence, a well-thought policy formulation is required in this regard given the volatility of this policy.

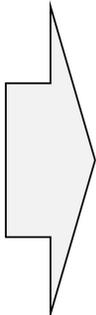
C. Challenges and Illustrative USAID Interventions

Given the current size of the sector and the relatively limited budget for the non-food value chains, the challenge for USAID will be to identify where and how to intervene for maximum impact. Based on our research, the rapid VCA team would suggest that USAID focus on the production, high value processing and marketing segments of the value chain. Regardless of where USAID intervenes, actions should focus on market *facilitation*, *not direct provision of services* or the creation of new businesses by USAID to plug gaps in the value chain.

The one area we would suggest avoiding are some of the larger, more traditional businesses like jute yarn, where there is already considerable investment happening and investment volume dwarfs any potential USAID investment in the sector. A few examples of challenges and illustrative solutions are found below.

ILLUSTRATION 14 : CHALLENGES & ILLUSTRATIVE USAID INTERVENTIONS

Value Chain Segment	Challenge	Illustrative Solutions
Production	Seed supply is erratic and low quality.	Advocate for a more timely gov't seed supply solution and seek an enterprise solution.
	Limited supply of water or poor soils in southern region.	Disseminate research findings from BJRI around new techniques and varieties.
Processing	Limited value added production (except yarn) in the south.	Promote investment opportunities & incentives to invest in the region.
	Old and relatively inefficient equipment.	Identify sources of new and low cost equipment that meet ROI of domestic investors.
Marketing	Lack of linkages between local firms and export markets.	Implement market research effort and participate in trade fairs.



D. Building a Sustainable Market System through USAID Forward

Recently, USAID Forward was launched to amend and reform USAID business practices as part of a broader package of agency reforms. One of its seven pillars is maximizing the use of local institutions in USAID’s program implementation and building capacity of these local organizations/partners to receive direct funding from USAID in due course. USAID intends to identify such potential local partner organization relevant and working on strengthening value chains to continue its future investments in this sector.

Moving beyond the specific interventions above, identifying local partners who are both part of the core value chain and part of the broader market system as service providers or policy makers is a critical success factor. Leveraging local knowledge & skills, building capacity and accelerating the natural development of the target value chains (vs. market distorting interventions) is a key outcome for USAID / Bangladesh. Based on the field research, a few illustrative examples of how a USAID project could work through local partners to reinforce the jute market system are below.

ILLUSTRATION 15 : ILLUSTRATIVE USAID FORWARD PARTNERSHIP POSSIBILITIES

Category	Illustrative Partnership Opportunities
Core VC actors	<ul style="list-style-type: none"> • Build extension capacity of traders or mills to deliver technical assistance and higher quality inputs or seeds to farmers. • Co-finance the development of design centers with leading value added jute diversified product manufacturers. • Work with Dhaka based manufacturers to organize groups in the South to produce jute-based handicraft products.
Support Services	<ul style="list-style-type: none"> • Work with local financing institutions to develop geographically focused SME investment programs for the south • Develop a voucher system to allow private providers to build a sustainable market for business development and other technical services within the jute value chain.
Policy Makers or Connective Organizations	<ul style="list-style-type: none"> • Identify well managed and transparent organizations that could drive a national policy and strategy development process with budget support from the VC project.

V. COCONUT & COIR – ONE NUT, A “MILLION” PRODUCTS

Coconut is an undeveloped, yet widespread industry in Bangladesh. After a decades long lull, entrepreneurs are beginning in new facilities and re-open pre-existing factories.

A. Value Chain Map & Relationships

Although the vast majority of households in southern Bangladesh own a coconut tree, the product has been under-exploited up until now, with coconut oil for the domestic market as the main product. As the graphic below shows, a coconut is comprised of the skin, husk, shell, copra and the not shown in the diagram, water. Currently, the copra and shell are the only products widely used on a commercial basis. Oil and feedcake for animals are made from the copra while the shell is used for diverse products such as mosquito coil and even gunpowder. As described below, the husk or coir fiber is making a resurgence as the basis for natural fiber based materials. The

industrial sale and marketing of coconut water is almost unheard of in Bangladesh, although the water is consumed regularly by many Bangladeshis.

ILLUSTRATION 16 : COCONUT PRODUCTS

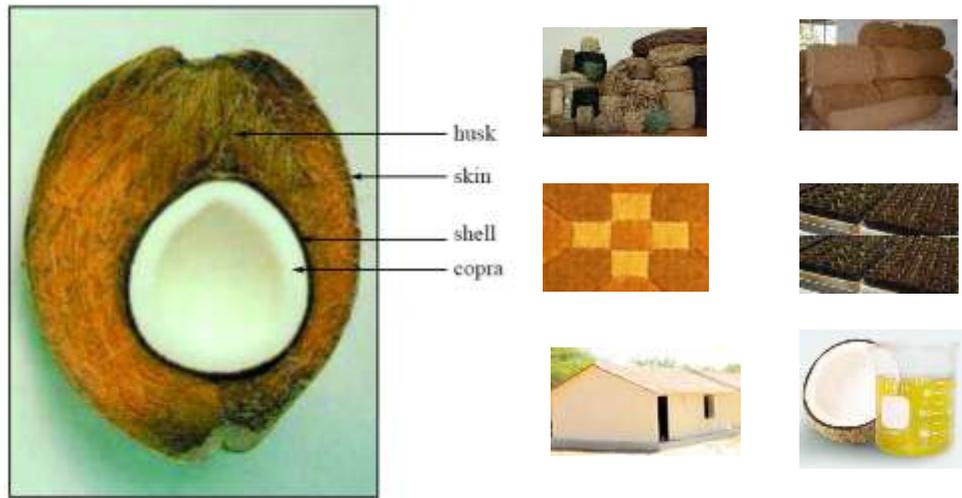


Figure 1 – Cross-section of coconut

Although coconuts grow all over the southern region, they are a major crop in the Bagerhat District, near Khulna. The rapid VCA team focused on understanding the dynamics of this micro-regional value chain as a proxy for understanding the regional opportunity in the south.

Except in very rare cases, this value chain begins at the household level with farmers growing coconuts in mostly a traditional and artisanal manner. Very few use any inputs. As in jute, the coconuts are then sold to mobile traders or traders based in various village markets in the district. The traders play a key role in supplying the two basic sides of the value chain; i.e. the nut and the husk. The traders organize the splitting of the coconut and establish relationships with coconut oil producers and the fiber mills or integrated fiber and product manufacturing units.

Depending on the product chain, there is a wide variety of end uses and markets for coconut products ranging from oil for hair to fiber for high-end, locally manufactured mattresses. Based on our interviews, this is a dynamic market with significant SME investment and expansion underway based on perceived opportunities in Bangladesh and overseas. At the same time, certain product categories such as the water and dried coconut for sweets and other confections are currently ignored in the south. Both of these product areas offer significant business opportunities for entrepreneurs in the domestic and international markets. Finally, the most visible untapped opportunity is the mountains of pith, a byproduct of the milling process which can be sold as a component for organic fertilizer. Almost all fiber mills visited during the field research phase reported significant problems marketing sufficient quantities of the pith, even at the low price of 20 taka per 40 kg bag (pictured below).

ILLUSTRATION 17 : COIR PITH AND 40 KG BAGS READY FOR SALE, JESSORE CITY



ILLUSTRATION 18 : COCONUT / COIR VALUE CHAIN, PHOTOS FROM THE FIELD

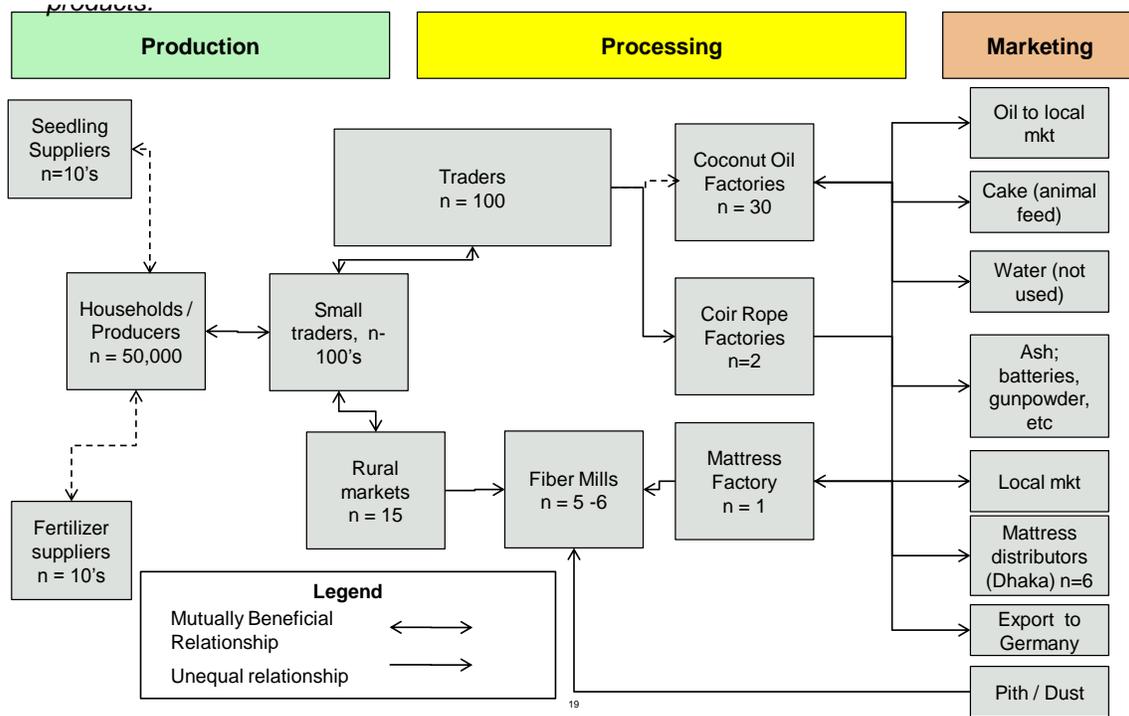
Production

Processing

Marketing



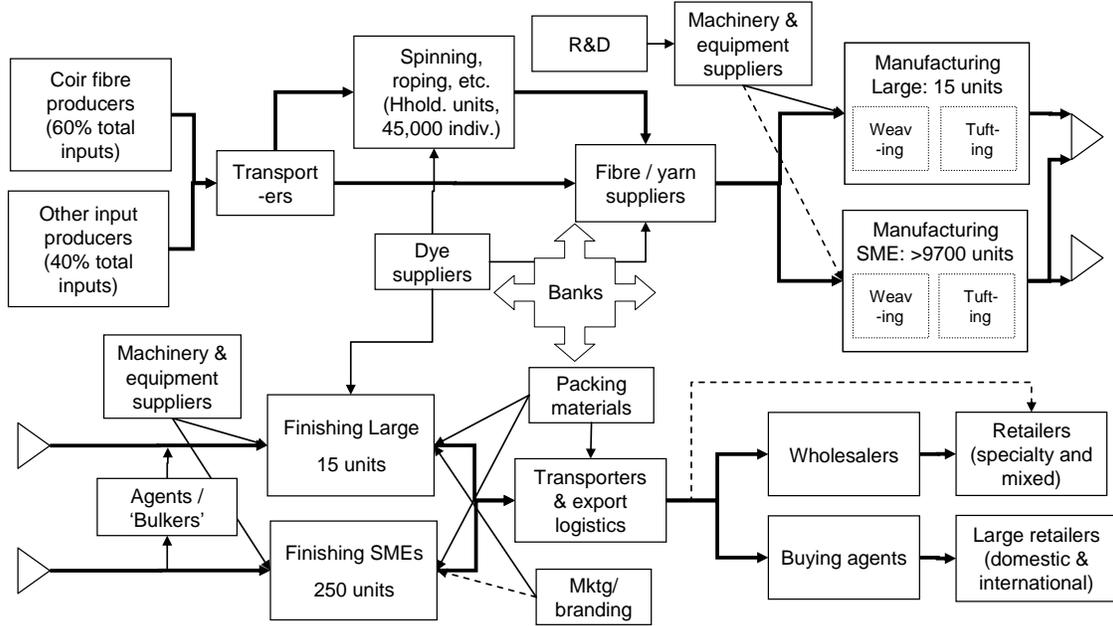
ILLUSTRATION 19 : COCONUT & COIR VALUE CHAIN MAP, BAGERHAT DISTRICT



Given that the coir industry in the south is currently in a very nascent stage, the potential growth and upside is tremendous. One only has to look to Allepey, India to see what is possible. With approximately 10,000 firms and tens of thousands of households engaged in the sector, this cluster should be a model and benchmark for the region. Most firms that we spoke to had visited Allepey at least once and either imported or otherwise replicated the machinery and processes that they saw there.

The key learning here is that although the coir / coconut value chain is functioning in southern Bangladesh, there is the opportunity to grow the industry by several orders of magnitude if Allepey is taken as the benchmark. This type of growth will of course require a clear strategy and understanding of how Bangladeshi firms can differentiate themselves from their Indian counterparts, but given Bangladesh's success in creating a world class assembly sector around garments, this type of regional upgrading is imaginable.

ILLUSTRATION 20 : ALLEPPEY, INDIA COIR CLUSTER – GLOBAL LEADER IN COIR PRODUCTS¹²

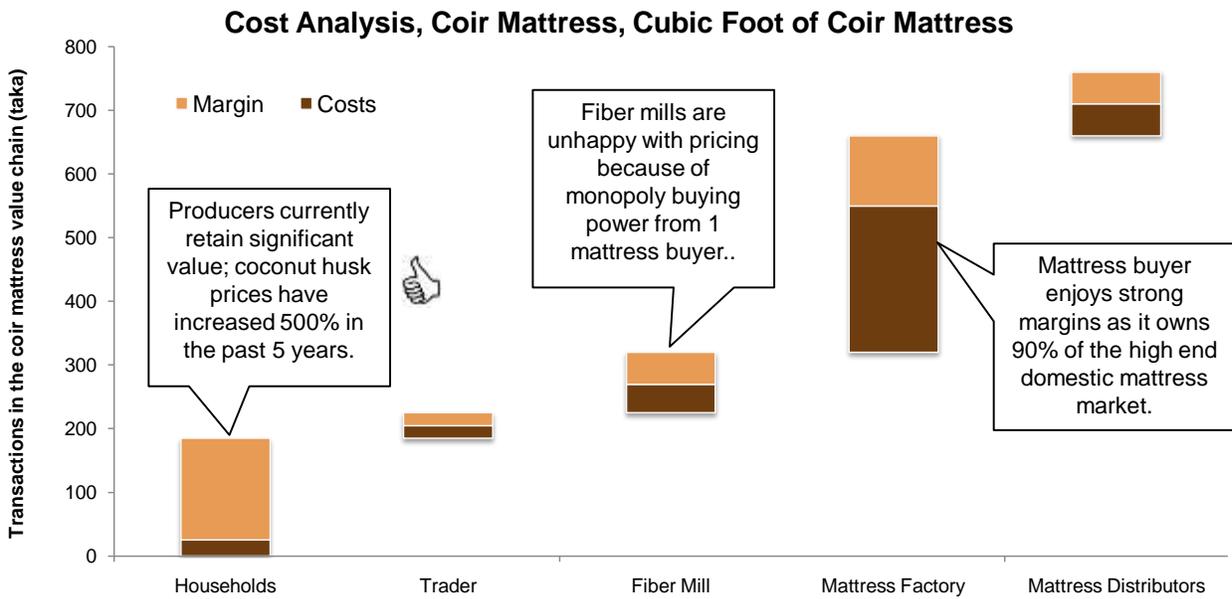


B. The Case for Inclusive Growth – Transactions in the Value Chain

The team’s inclusive growth analysis focused on the specific case of high end mattresses and other potentially sophisticated coir products that could be sold in the domestic and eventually export markets. In terms of the inclusive growth model, beyond the clear optimism and recent investments into the sector by indigenous entrepreneurs, the cash flow from the coconuts to farmers is very attractive. As noted above, almost no inputs are added to coconut trees, so they are sold at net margins of 90% plus. In addition, growth in the coir industry has pushed up husk prices 500% in five years, providing some additional income to farmers. Overall, the potential for a robust inclusive growth model is strong.

¹² “Allupuzha Coir Diagnostic”, Cluster Pulse and OTF Group, November 2006

ILLUSTRATION 21 : COST & MARGIN ANALYSIS, COIR MATTRESS VALUE CHAIN, BAGERHAT



End Markets

The team sees two sources of growth for the coconut sector. First is domestic demand where local processors are successfully competing against formerly imported products. This is particularly the case with high-end coir mattresses where until just a few years ago, the market was dominated by Indian products. Given the relatively large population of Bangladesh (162 million and 20 million in Dhaka alone), the domestic market could represent a viable opportunity for significant growth in the value chain.

The second obvious broad opportunity is exports. Bangladesh is not currently a significant exporter in any segment of the global coconut market. Based on the overview of the global export market in the graphic below, a variety of opportunities potentially exist. For example, dried (desiccated) coconut represents a medium-sized, but high growth opportunity in the food sector. Coconut oil is the largest opportunity with modest positive growth, so if the southern region could upgrade its current relatively low quality, artisanal quality oil, there may be sales opportunities there. Coir floor coverings are a very high value, but relatively low growth market, so breaking into this segment will mean grabbing market share from incumbents, most likely India.

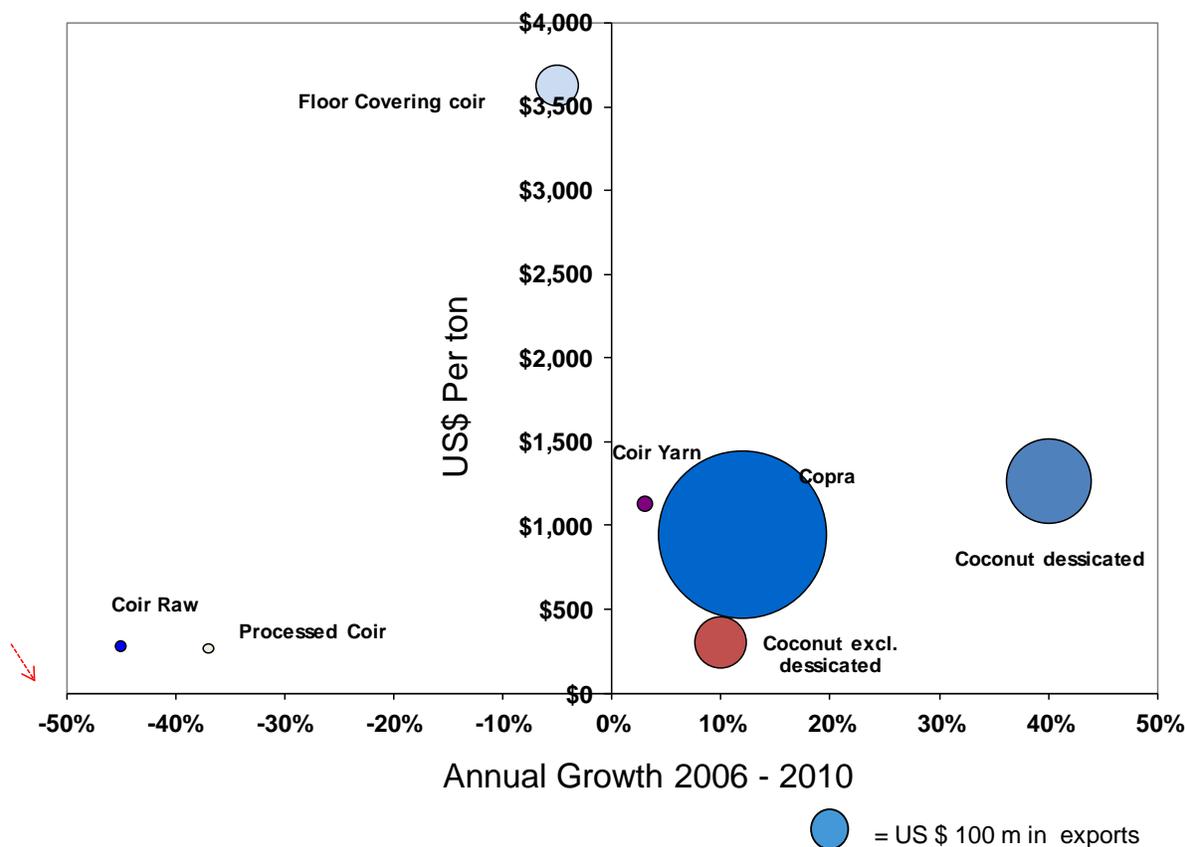
The range of potential exports is staggering. At its most basic, coir rope destined for the gardening market is a product already produced by multiple Bangladeshi firms. At the opposite end of the scale are high end and high design handicraft and home products which have a niche following in Bangladesh. Another example of high end product which is not currently produced in Bangladesh are floor mats for BMWs which use coir as the under layer for some of the mid to upper range vehicles.

Still Bangladesh imports around 20% coconut oil of its requirement.¹³ However, the import volume is constant or slightly decreasing in last few years.¹⁴ In fact, the actual requirement is much higher as palm oils are mixed with coconut oils and sold in the market. Hence, there is ample opportunity to replace imports and also to produce good quality and pure coconut oils and market thereby.

¹³ <http://www.poram.org.my/v1/poram/Bangladesh.pdf>

¹⁴ <http://www.indexmundi.com/agriculture/?country=bd&commodity=coconut-oil&graph=imports>

ILLUSTRATION 22 : EXPORT GROWTH OF COCONUT PRODUCTS, 201015



Processing

There are three major categories of coconut processors in the southern region:

- Traders: as noted above, traders play a valuable pre-processing role by separating nuts from the husk and distributing the appropriate products to the next stage of value chain. This creation of value is reflected in higher revenue retention than in jute.
- Coconut oil processors: our best estimate is that there are 30 processors in the region. This business follows two different models. Under the more typical case, the processing units take ownership of the oil (and the rest of the nut) and then on-sell the products. Under the second model, the traders retain possession over the oil (and sometimes other products) and pay a service fee to the factory.
- Fiber mills and related products: the second fork in the value chain is processing of the husk which is enjoying a resurgence in the region. One large integrated manufacturing unit just re-opened after 30 years and we visited multiple firms, especially village-based enterprises that had either recently opened or were contemplating expansion.

At this level the biggest issue in the chain seemed to be a bit of monopolistic buying power on the part of the value added product manufacturers. Basically, there seems to be some over-capacity in fiber production, but a gap in the manufacture of products that meet the demands of domestic and export consumers. This represents an interesting opportunity for USAID intervention to support entrepreneurship, especially at the village level.

¹⁵ Source: TradeMap, accessed October 2010.

Producers

As noted above, production of coconuts is fairly widespread and unsophisticated. Most households spend a few dollars a year maintaining and pruning the trees and use no inputs to enhance productivity. At the same time, coconuts are an amazing source of food security in the form of easily accessible cash. During the team's visit to a coconut market, we witnessed one small farmer sell seven relatively low quality coconuts for the equivalent of just over a dollar and immediately buy food with the proceeds.

The current market price for coconuts is approximately 15 taka or twenty cents on average. Of this, the value of the husk is approximately 2.5 taka and the nut is worth 12.5 taka. As noted above, the price of the husk has increased by 500% over the past 5 years according to one of the fiber mills.

A new and growing problem for coconut producers is the emergence of a fungus that lowers the quality of the coconuts. It was unclear what was causing the fungus, but at the same time a few of the larger growers has heard of a fungicide available in Dhaka that could solve the problem.

There are two basic models for coconut farms in the region. The vast majority of growers (90% plus) have them growing either along the borders of their farms or in places where other garden crops have difficult growing so they are not in competition with other crops in the homestead garden portfolio. A small number of larger growers have what could be loosely defined as small plantations or groves which are typically set aside for coconuts and other tree crops like bamboo.

Input Suppliers

Input suppliers play a fairly limited role in this value chain as most households simply put a coconut seedling in the ground and let nature take its course. In a very few cases, there were some farmers that grew seedlings on a semi-commercial basis, but this appeared rare. Even more unusual was the use of fertilizer or other inputs to enhance productivity, i.e. coconuts per tree per year despite evidence that modest amounts of fertilizer can dramatically increase yields. A final emerging trend in input supply was the slow arrival of fungicides from Dhaka to combat the fungus issue mentioned above.

Service providers (sector-specific, cross-cutting, financial)

Beyond the core value chain actors, service providers play a key role in enhancing the competitiveness of the industry. As a relatively small sector in Bangladesh, this "ecosystem" of service providers is relatively thin compared to jute, although more robust than flowers. Although short-term partnerships to help deliver technical assistance should be possible, significant effort may have to be put into identifying and developing USAID Forward partners that are capable of designing and delivering interventions as direct partners with USAID.

Sector specific

Machine manufacturer and troubleshooter: The fiber mills and also coir producers get their machines manufactured locally and receive troubleshooting support as well. However, there are no R&D facilities at the public agency level to improve technologies as evidenced by the fact that the sole mattress producer visited India several times to gain knowledge on machinery and technology. Imported machines were also found in one factory but those were imported 50 years ago and no machinery importers were identified as currently operating in the sector.

Oil millers: As stated earlier, sometimes oil millers act as service providers and produce oil for the coconut traders for a service charge.

Coconut harvesters: There are people locally available who climb and pick coconut for the tree owners for a nominal service charge. Sometimes, tree owners also sell coconuts to the traders and the traders pick the coconut by themselves (embedded service).

Cross-cutting

Transporters: coconut producers usually bring coconut to the market either by rickshaw van, or by bicycle. Large traders carry coconuts and/or husks in small trucks. Fiber mills use small trucks or rickshaw van. Coir mattress producers use trucks to transport goods.

Labors: There are various types of labor provision at different tier of the value chain. For instance, large coconut traders (who buy in bulk in markets from a number of tree owners or small traders) deploy laborers to separate the husk from the fruit (including the hard shell) as they supply the husk to fiber mills and coconut to the oil mills. In fiber mills there are laborers who work in thinning the husks to produce semi-yarn. Many of the fiber mills also produce coir ropes where laborers work also. In the coconut oil mills there are laborers and also there are laborers in coir mattress mills to do respective types of jobs.

Finance

Banking: Fiber mills and also coir mattress producers enjoy banking services with commercial banks.

Credit: credit is a common phenomenon. For planting coconut trees, taking micro finance is unheard of and also not practical. However, there are credit facilities among the actors in the value chain but mostly in the downstream. Tree owners usually sell coconuts in cash at local markets.

Sector specific global and national policy environment

Given the relatively small size and low sophistication of the sector, there is limited government intervention or policies for or against the development of the sector compared to jute. That said, the team did note a few sectors specific issues:

1. Export incentive: coir products are not currently entitled to the export incentive, but they are slated to receive this benefit as early as next year. This legislation should be closely tracked by USAID.
2. Domestic use policy: although Bangladesh has a law requiring use of natural fibers for packaging, enforcement is uneven. Rigorous enforcement of a similar law is credited with driving demand, and imports of jute in India.¹⁶

C. Challenges and Illustrative USAID Interventions

The current small size of the coconut and coir sector represent an opportunity for USAID to intervene across the value chain. Starting with production, yields could easily be increased with the introduction of limited amounts of fertilizer. Similarly, the emerging fungus problem can apparently be resolved with fungicides that are available in Dhaka, but not widely commercialized in the south. Both of these are opportunities to engage input suppliers in upgrading the value chain.

Further downstream, there is a vast opportunity to spur entrepreneurship and SME creation through investment incentives or perhaps challenge grants. Investment for the village based enterprises in the range of a few hundred thousand dollars, so very doable. Finally, engaging in market learning and linking exporters to markets would enhance the revenues and profits of local firms and drive demand for additional production at the household level.

¹⁶ "Roadmap for

ILLUSTRATION 23 : CHALLENGES & ILLUSTRATIVE USAID INTERVENTIONS

Value Chain Segment	Challenge	Illustrative Solutions
Production	Relatively low productivity of coconut trees.	Introduce new inputs via technical assistance and support to lead farmers
	Limited number of processing firms	Encourage increased investment into value added coir product factories
Processing	Outdated equipment or inefficient manual processes	Develop relationships with Indian and other suppliers.
	Lack of knowledge around best practice in coconut and coir processing	Learning tour to Allepey coir cluster and coconut oil processor (maybe Sri Lanka)
Marketing	Vast opportunities for product diversification & exports.	Implement market research effort and participate in trade fairs.

D. Building a Sustainable Market System through USAID Forward

Recently, USAID Forward was launched to amend and reform USAID business practices as part of a broader package of agency reforms. It emphasizes maximum possible use of local institutions in USAID's program implementation and building capacity of these local organizations/partners to receive direct funding from USAID in due course. USAID intends to identify such potential local partner organization relevant and working on strengthening value chains to continue its future investments in this sector.

Moving beyond the specific interventions above, identifying local partners who are both part of the core value chain and part of the broader market system as service providers or policy makers is a critical success factor. Leveraging local knowledge & skills, building capacity and accelerating the natural development of the target value chains (vs. market distorting interventions) is a key outcome for USAID / Bangladesh. Based on the field research, a few illustrative examples of how a USAID project could work through local partners to reinforce the jute market system are below.

ILLUSTRATION 24 : ILLUSTRATIVE USAID FORWARD PARTNERSHIP POSSIBILITIES

Category	Illustrative Partnership Opportunities
Core VC actors	<ul style="list-style-type: none"> Work with input suppliers and larger traders to push for the use of fertilizers and other inputs to upgrade productivity. Co-finance the development of design centers with leading value coir product manufacturers. Work with Dhaka-based entrepreneurs to entice them to invest in the South through investment incentives.
Support Services	<ul style="list-style-type: none"> Work with local financing institutions to develop geographically focused SME investment programs for the south Develop a voucher system to allow private providers to build a sustainable market for business development and other technical services within the coconut value chain.
Policy Makers or Connective Organizations	<ul style="list-style-type: none"> Work at the national level to develop a national coconut and coir policy and strategy to upgrade the sector.

VI. FLORICULTURE – A “RISING STAR” VALUE CHAIN

Cut flowers are a new, but booming industry in Bangladesh. A USAID intervention could help boost the flower production center of Jessore and create a sophisticated, high visibility value chain.

A. Value Chain Map & Relationships

Cut flowers are a relatively small, but seemingly high growth industry in Bangladesh with very attractive margins throughout the chain. Although exact figures are difficult to come by, the retail market is likely just under US \$10 million with growth rates in the 30 to 40% range per year. Based on our research, micro and small enterprises are investing throughout the value chain and smallholder are earning good incomes by linking into fast growing urban markets. However, certain types of flowers do require dedicated land, so contribute to the “crowding out” of food crops, an issue to be watched.

The value chain for floriculture is simplest out of the three priority sectors. Starting with roughly 4,500 farmers in the Jessore region, the typical path of the flowers is to traders, then Dhaka wholesalers, and onto retailers in Dhaka and often Chittagong. Two interesting variants of the flow are highlighted in the value chain map:

- Integrated input supplier, trader, wholesaler: these businesses enhance profits by linking the farm directly to urban retailers. These represent a small minority of the product flow, but an interesting one to pursue and develop.
- “Flower assembly”: beyond the simple production of flowers, some common flower-based products require “assembly” or stringing at the village level. This creates off-farm employment for women although the team did note some suspect intermediary dealings with regard to the recruiting of the women.

ILLUSTRATION 25 : FLORICULTURE VALUE CHAIN MAP, PHOTOS FROM THE FIELD

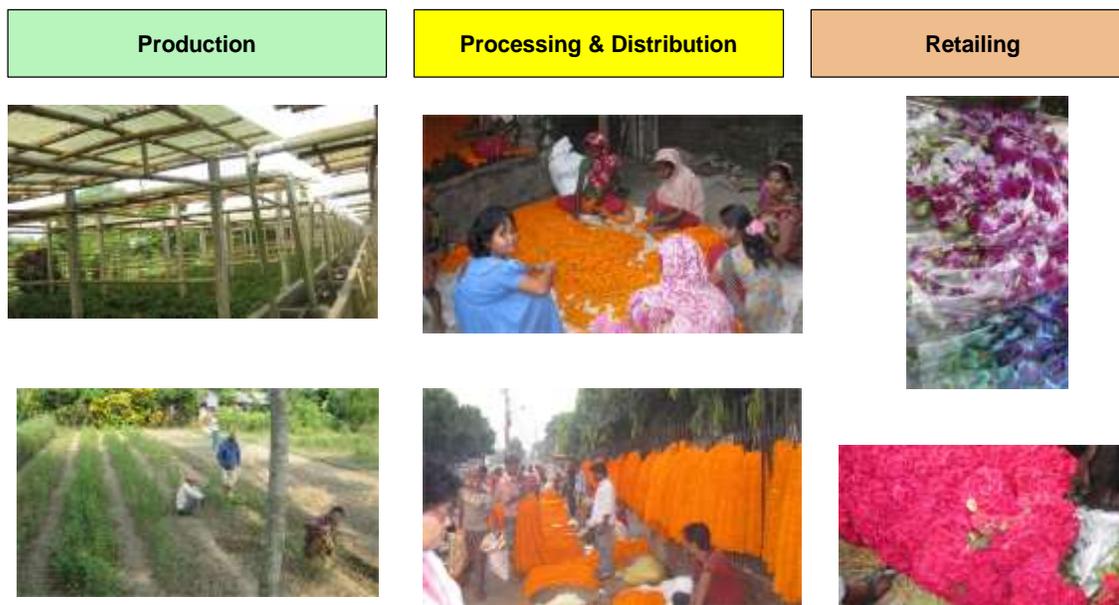
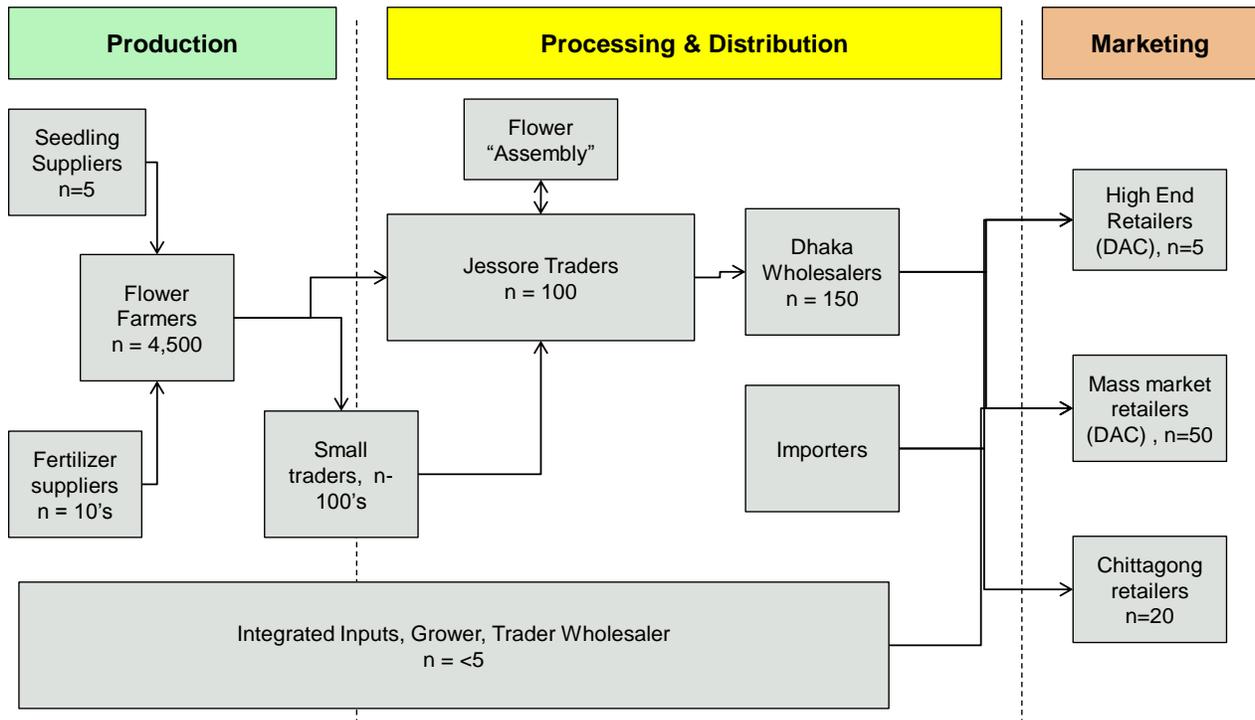


ILLUSTRATION 26 : FLORICULTURE VALUE CHAIN MAP, JESSORE TO RETAIL



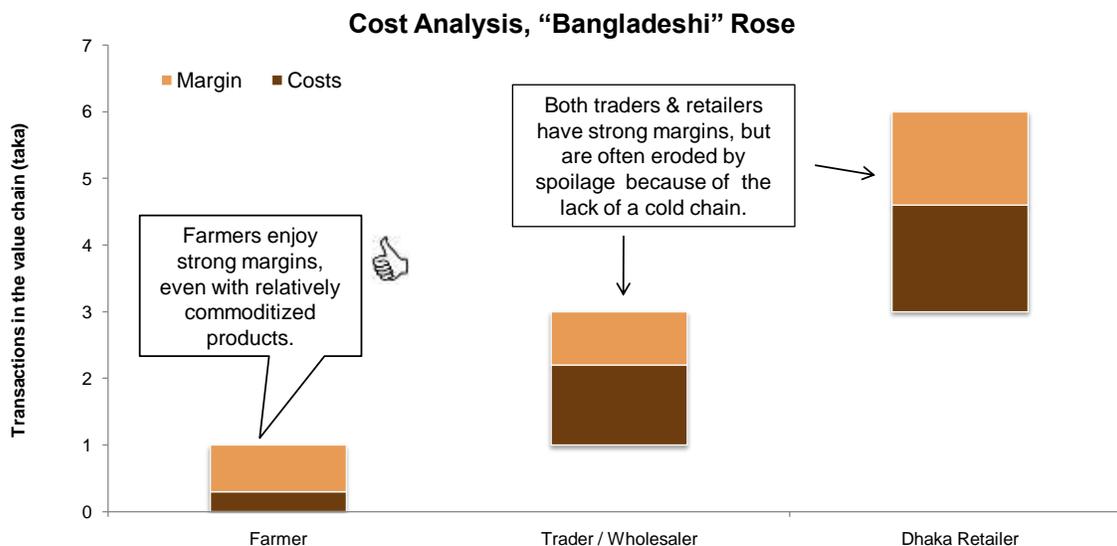
B. The Case for Inclusive Growth – Transactions in the Value Chain

About 90% of the domestic flower industry’s revenues are derived from four varieties of flowers; roses, tuberoses, marigolds and gladiolas. Our cost and margin analysis to quantify the inclusive growth potential of the sector focuses on the “Bangladeshi” rose or the relatively low value flower commonly sold on the streets, not the higher quality long-stem rose common in the U.S. and available in Dhaka for 10 times the price of the common rose.

As can be seen in the cost and margin analysis below, farmers earn strong margins on roses and this is consistent across the four major varieties based on our research and a recent market study.¹⁷ Although other actors in the chain also make comfortable margins, they are eroded by spoilage due to the absence of a cold chain for flowers.

¹⁷ Cite flower study.

ILLUSTRATION 27 : COST & MARGIN ANALYSIS, “BANGLADESHI” ROSE



End Markets

Initially, the main thrust for Bangladesh’s flower sector to grow should be the domestic market. As can be seen in the graphic below, imports of cut flowers increased five times between 2002 and 2007, albeit from a small base. At the same time, retailers claim that as late as 2006, the flower industry was practically non-existent. What seems to be happening in the local market is that domestic products are taking market share from imports, but the overall market is continuing to grow, so imports still represent somewhere between 20 to 30% of the market¹⁸, particularly at the high end of the scale. Retailers prefer imported flowers because of their freshness (they are kept in a cold chain) and breadth of product selection.

In the medium- to long-term, Bangladesh could become a significant exporter of flowers. As can be seen in the cut flower global export profile, Ethiopia is the latest East African entrant to achieve high growth rates and build a significant industry. With significant investments in production, cold chain and then market development, Bangladesh could likely be competitive in Middle Eastern and European markets. Our field research hinted at some limited exports of orchids, but this primary data could not be confirmed with quantitative data.

¹⁸ Team estimates based on industry interviews

ILLUSTRATION 28 : GLOBAL CUT FLOWERS EXPORT PROFILE, 2002 - 2007¹⁹

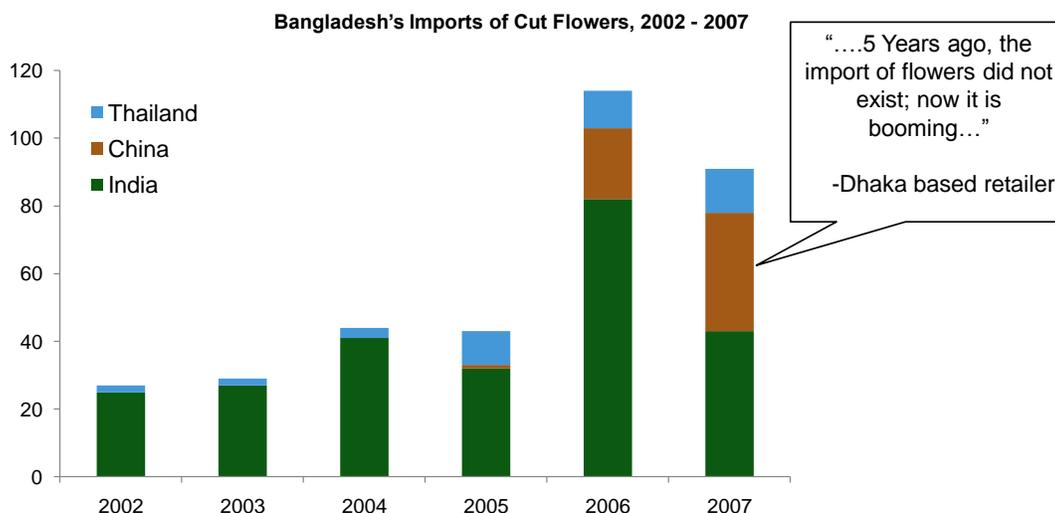
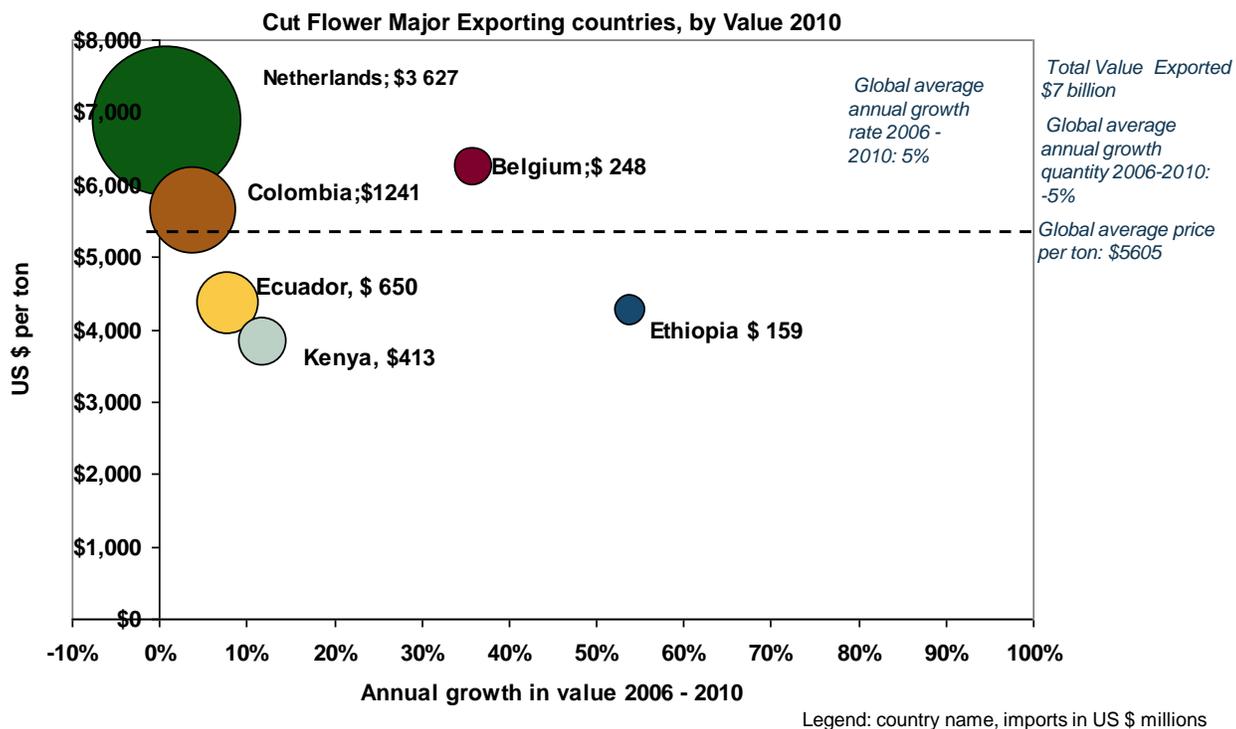


ILLUSTRATION 29 : GLOBAL CUT FLOWERS EXPORT PROFILE, 2006 - 2010²⁰



Note: Product : 0603 Cut flowers

Processing & Distribution

There are two major activities in processing and distribution for now:

¹⁹ Source: TradeMap, accessed October 2010.

²⁰ Source: TradeMap, accessed October 2010.

- Traders: these firms play a valuable role in aggregating, packing and transporting flowers from Jessore to Dhaka and beyond. As noted above, these traders occasionally backward and forward integrate to enhance margins, but a more typically a middle man.
- Flower assembly: as noted above, there is an interesting additional job creation step for many flower products sold in Bangladesh. Women are hired to string flowers into decorations or necklaces on a piece or daily basis; typically in Jessore, but also occasionally in Dhaka.

A big gap in the processing level is a cold chain which would dramatically improve the shelf life, quality and likely price of the flowers. Although a cold chain is probably not justified for the current level of production and sales, this type of investment could be contemplated to complement creating the same system for vegetables or perhaps piggybacking on the existing potato cold chain.

One potential negative at the trading level was the role of the Flower Association. Based on our interview with the President's wife, the possibility of a mini-cartel became evident. Additional due diligence should be conducted on the association before engaging too deeply with them as a partner. Another relationship challenge that the team observed was the management of the assembly women in the district. The "boss" of the women seemed to exert significant control over the women and with this control extracted half of their wages per day, i.e. 75 taka out of 150 per day per woman. The justification for this arrangement was quality control, which is logical, but the commission appeared a bit high to the research team.

Producers

As noted in the cost analysis, farmers seem to be earning excellent margins despite relatively large investments into inputs.²¹ Technical assistance and product improvements are generally spread by word of mouth, but we did see two model farms run by larger and more established farmers. These model farms consisted of rudimentary greenhouses and were producing new and high value products such as Gerber daisies which were previously exclusively supplied by importers. Although this type of import substitution typically starts with larger, more sophisticated farmers, the knowledge and skills to do this business eventually trickle down to the smaller less sophisticated farmers. This adoption curve could perhaps be accelerated through a USAID project using targeted extension services.

Input Suppliers

Flower farmers are active users of inputs such as fertilizer and pesticides which appear to be readily available on the local market. These suppliers also provide some advice on when and how to apply the products and therefore act as a form of extension agent.

Seeds and seedlings are mainly imported from India, although we did visit one small nursery that did have a wider variety of cuttings available for resale to local farmers. The most interesting variety was a high quality, long stem rose which had previously only been available from India.

Service providers (sector-specific, cross-cutting, financial)

Beyond the core value chain actors, service providers play a key role in enhancing the competitiveness of the industry. As an emerging sector in Bangladesh, this "ecosystem" of service providers for flowers is the weakest of the three value chains. Although short-term contracts with some providers around Jessore like Hortex, may be

²¹ "Production, Post-Harvest Handling and Marketing of Cut Flowers in Bangladesh: An Agribusiness Study", Hasneen Johan, July 2009.

feasible in the short-term, significant effort will likely be required by implementers to find capable partners to deliver the technical assistance required to enhance the competitiveness of the value chain.

Sector specific

As a “rising star” the sector specific service provisions are yet to emerge or develop. Most of the services are embedded with input suppliers who provide advices on product usage or production techniques.

Seed/seedling importers provide access to high-quality flower seeds to farmers imported mainly from India.

Seedling producers are multiplying seeds and thereby seedlings and selling to farmers while providing production advice.

Pesticides/fertilizer sellers are again embedded service providers who leverage their position as input suppliers to sell inputs.

There are some NGOs operating in Jessore area who are promoting improved flower production through demonstration plots. DAE is also involved in these activities. However, according to the local growers, those NGOs and government took the opportunity to promote themselves while all the initiatives were taken by individual farmers.

Cross-cutting

Transportation: many producers were found to bring their produce in the market upon their own-bicycle. As the harvests take place daily, individual producer volumes are minimal and can be transported by foot, bike or rickshaw. Large wholesalers carry the aggregated bulk flowers by bus to the Dhaka wholesale market. It was also observed in Dhaka market, that some producers carry their own production up to Dhaka on a daily to several time per week basis.

Packaging: Bouquets are usually made in urban retail shops by using different materials such as ribbon, polythene, small bamboo baskets etc. For high value flowers such as Gerber daisies, traders wrap them in small polythene before carrying it end markets.

Finance: No such specific financing were observed for floriculture. However, microfinance is available in rural areas and flower farmers can access this service (through female family member).

Sector specific global and national policy environment

Given the very small size of the sector, there is no sector specific policy that either helps or hinders the sector. Facilitating the creation of a floriculture specific national policy could be a useful initiative for USAID, but was not mentioned in our interviews. Moreover, flower exports are not entitled to receive any form of cash subsidy by the government like many other agro-based exports do.

C. Challenges and Illustrative USAID Interventions

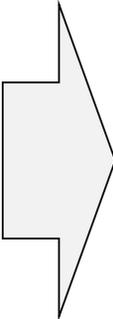
USAID has an opportunity to play an important catalytic role in the flower sector. At the same time, given the small size of the sector and the expected budget for this program, USAID should also be careful to stick with a “light touch” or facilitating approach to avoid market distortions. In our interview with the flower association, they mentioned that a US \$100,000 project in 2007 had a significant impact on the sector. This provides a bit of context in terms of the volume of investment that might be appropriate.

The team’s assessment is that the best opportunities for an intervention are at the production and marketing levels. At the production level, a more systematic and scientific introduction of new products and cuttings could help

diversify the sectors product base. On the marketing side, deepening the domestic market and developing export market contacts could drive significant growth in the sector. Although the creation of a cold chain is critical, USAID should be wary of directly investing in this asset given failures in numerous countries to successfully execute this type of initiative.

ILLUSTRATION 30 : CHALLENGES & ILLUSTRATIVE USAID INTERVENTIONS

Value Chain Segment	Challenge	Illustrative Solutions
Production	Focus on 4 primary products	Systematically introduce new high quality species based on customer trends.
	Over-reliance on natural factors vs. science.	Accelerate the development of greenhouses and semi-commercial production systems.
Processing	Absence of a cold chain between Jessore & Dhaka	Provide incentives to appropriate private investors and leverage gov't cold chain assets.
Marketing	Still a limited "flower culture" in Bangladesh.	Invest in a local marketing campaign to promote flower consumption.
	No knowledge of niche export markets.	Implement a market research effort to identify markets where Bangladesh could compete.



D. Building a Sustainable Market System through USAID Forward

Moving beyond the specific interventions above, identifying local partners who are both part of the core value chain and part of the broader market system as service providers or policy makers is a critical success factor. Leveraging local knowledge & skills, building capacity and accelerating the natural development of the target value chains (vs. market distorting interventions) is a key outcome for USAID / Bangladesh. Based on the field research, a few illustrative examples of how a USAID project could work through local partners to reinforce the jute market system are below.

ILLUSTRATION 31 : ILLUSTRATIVE USAID FORWARD PARTNERSHIP POSSIBILITIES

Category	Illustrative Partnership Opportunities
Core VC actors	<ul style="list-style-type: none"> Co-invest with more sophisticated farmers and input suppliers to upgrade the variety and quality of plant material on the market. Identify a high-end retailer in Dhaka who is willing to invest and manage a cold chain with modest support from USAID for upfront costs like a feasibility study or design work.
Support Services	<ul style="list-style-type: none"> Work with local financing institutions to develop geographically focused SME investment programs for the south Develop a voucher system to allow private providers to build a sustainable market for business development and other technical services within the floriculture value chain.
Policy Makers or Connective Organizations	<ul style="list-style-type: none"> With the caveats noted above, work with the flower association near Jessore to propose a national level cut flower policy and strategy.

VII. GENDER DYNAMICS IN BANGLADESH & THE TARGET VCS

Although gender dynamics in Bangladesh are sensitive, women are active participants in all of the value chains, although they are generally paid only 50% of their male counterparts. This section provides a general overview of gender issues in Bangladesh, generic opportunities to address some of the issues and then specific opportunities for gender integration within the value chains.

A. Overview of Gender Issues in Bangladesh²²

Bangladesh remains one of the world's poorest countries with a population of approximately 150 million. In particular, food insecurity remains a major development challenge, and is further complicated by gender-related factors. Lack of access to adequate quality and quantities of food, particularly for pregnant mothers, as well as poor infants and young child feeding practices are key causes of malnutrition. Women and girls are usually the last to eat at mealtimes and 50% of the female population is undernourished. Female-headed households face more serious poverty, in terms of food insecurity and lower income, than male-headed households. Women are heavily engaged in agricultural activities but are usually not considered to be farmers and usually do not have access to agricultural extension services and credit. USAID/BD will take these factors into account in planning and implementing activities within the FTF initiative.

Gender-differentiated factors identified in Bangladesh's agricultural sector include but are not limited to:

- Access to and control over land and productive resources including irrigation, technologies, forests, and aquatic resources is unequal between women and men.
- Women's needs and interests may differ from those of men due to differences in assets and activities as well as socio-cultural factors.
- Constraints on gender approaches to agricultural extension and training.
- Effective participation by women in local decision making remains limited.
- There is a lack of awareness or responsiveness to gender issues and women's rights among decision makers and service providers.
- Constraints to women's enrolment and graduation from agricultural universities and training programs.
- Constraints to women's participation in and benefits from extension, information, and advisory services delivery.
- Constraints to women ownership, management and growth of small and medium businesses in rural areas, especially as related to agricultural marketing activities.

B. General Recommendations for Gender Integration

The following six recommendations came out of the recent gender study. These suggestions reflect a starting point for considering and integrating gender into the value chain development process.

Address the distinctive needs of women and improve the resiliency of the vulnerable, especially the landless.

²² Excerpted from "Desk Review of Gender Issues for Feed the Future" USAID/Bangladesh, September 2011

When dealing with the needs of women, socio-cultural practices and constraints on women have to be considered. It was frequently noted that addressing women's economic and nutritional security could possibly lead to increased gender based violence. Nevertheless, more balance in the control of household resources and assets seems to result in overall benefits for the entire family.

Overcome gender based constraints to agricultural productivity.

There is no shortage of problems identified in agricultural productivity or of suggestions for improving productivity. What has to happen is gender integration of agriculture, health, and nutrition programs. Best practices show that integrating approaches to address gender-based constraints in both food security and nutrition programs and that work both at the household and community level can overcome gender based constraints by bringing attention to gender inequities. While opportunities to transform the nutritional status of women and children are clearer at the household level through improved agricultural production (e.g., homestead gardens, production of diverse foods), working at the household level is not sufficient. Community level efforts that include women in agricultural production training and include men in nutrition training are approaches that work in this socio-cultural context.

Homestead gardens provide a nexus of opportunities for gender integration

Women have a lot of interest in their homestead gardens and have expressed interest in receiving training to know about species suitability, appropriate mixture of crops, and information related to high-yielding varieties (Akhter et al., 2010). This study observed that women's preferences for certain characteristics and use can heavily influence the adoption of new varieties and continuance of traditional varieties. Women are interested in receiving financial support for small-scale homestead garden-based industries and extension education programs. Women are also interested in awareness-raising programs through mass media to help in understanding the importance of homestead gardens. Finally, women are interested in different types of training and benefits such as raising tree nurseries, silvicultural practice, cultural practice and supply of quality planting materials (Akhter et al., 2010). Homestead gardens may be the best starting point for working with women because of the following:

As far as the three sectors are concerned, coconut and to some extent flowers are suitable under homestead gardening. As we found in our research, most of the coconut trees are in or around homestead and can be looked after by women, if at all required. Flower is a sensitive crop and requires extensive care. Hence, growing flowers in small scale might not be very lucrative. On the other hand, as homestead gardening has been described so far, flowers will not provide any food or nutrition.

Overcome gender constraints to improved nutrition

Improving nutrition and improving agricultural productivity are linked objectives and probably should not be separated but rather, jointly implemented at every level. This may take a breaking down of silos but should lead to synergies and financial savings. Addressing gender inequality is essential to reducing malnutrition and recognizing that women's lack of access to and control of resources and their restricted mobility can and does limit their ability to make improvements in nutrition. For example, numerous nutrition programs have worked directly with women but because women do not do the food shopping and are not able to tell their husbands and sons what to buy, they remain unable to improve the diets at home.

Increase institutional capacity for productivity improvement

High quality and high performing agricultural extension, education and training, and research capacity are essential for Bangladesh to achieve food security. Improving the extension services to better assist farmers is critical. USAID/Bangladesh suggests a refocus on technology transfer through multiple approaches, effective

outreach, and training of women extensionists. In order to actively and effectively recruit women into extension services, incentives into this career should be considered, including improved agricultural training and wages. By having more women extension agents in the field, more women farmers can be reached and appropriate information disseminated – meeting the needs of women while remaining sensitive to cultural and social norms. Also, an expansion of demand-led and pro-poor extension services will ensure that communities’ needs are met.

Improving the capacity of research will enable the National Agricultural Research System (NARS) to develop new varieties of rice and other food crops with improved resistance to insects and disease and drought tolerance. Support and investment are needed in physical infrastructure and human capacity building. NARS should also actively recruit women from universities (USAID, 2010a).

Improving monitoring and evaluation

Too often, data collection, including gender disaggregated data, is not well-coordinated among projects within USAID’s portfolio across sectors. USAID guidance requires that the Mission assess gender-based constraints and opportunities within all programs at the household, community, and national levels in order to devise and deliver programs that successfully integrate gender. Such a holistic view would not separate agricultural production from nutrition, for example, or income generation from climate change adaptation. Synergies in data collection and knowledge sharing would result in financial savings as well. The Mission has noted in its FtF 2010 Implementation Plan that efforts will be made to develop a single plan for food security, encouraging sectors to work together effectively. As agriculture and nutrition are linked, so are health and nutrition. It would be a good idea to decide which sector is collecting what data and to share the data so as to avoid duplication or gaps in data collection.

C. Gender Issues in the Target Value Chains

C.1 Jute

Overall, jute represents a good opportunity to integrate women into the sector. Although women are generally not involved in the production and post-harvest processing (retting) because of cultural norms related to women getting wet, they are well represented farther up the chain in jute yarn processing facilities and of course in the production of handicraft and designer items.

Although opportunities to increase female participation exist throughout the value chain, the team has prioritized three interventions with the highest payoff in the table below.

ILLUSTRATION 32 : OPPORTUNITIES FOR GENDER INTEGRATION, JUTE VALUE CHAIN

Value Chain Component	#’s of participants	% women	Constraints to female participation	Illustrative Solutions
Retting	All farmers get involved in their jute retting process. Besides, they hire additional labor.	Almost zero in the softening process (putting jute underneath water) but around 50% in fiber extraction.	Women cannot get involved in work with watery or muddy conditions due to social and cultural barriers.	Promoting alternative retting systems where little water is required and women can work in the homestead
Jute diversified goods production	300 businesses. This number may be spread over the whole country	Women involvement as worker is very	Women entrepreneurship is limited in rural areas.	Assisting urban based jute diversified private sector producers to create linkages with rural (existing and

	and no specific number in south only. However, a rough estimate could be 100.	high, more than 75%.	Some NGOs operate in the areas involving women workers.	potential) women
Domestic & International Retailing	20-30 brands having multiple outlets nationally. Most of them are NGO based. Besides, exporters' rejected items (rugs, hammock, curtains etc.) are sold in urban areas in street side.	Mostly women in the NGO retail outlet in Bangladesh, may be 70%	Not enough retail shops for women to participate.	Create domestic market for jute based products.

C.2 Coconut & Coir

Women are not involved in the collection or wholesaling of coconuts. However, they are actively engaged in the fiber mills, especially the village based ones where women comprised up to 80% of the labor force. Although the typical discounted female labor rates still applied, the combination of a good environment and relatively short commute to the factory contribute to a positive economic opportunity for women who have access to these jobs.

Although opportunities to increase female participation exist throughout the value chain, the team has prioritized three interventions with the highest payoff in the table below.

ILLUSTRATION 33 : GENDER DYNAMICS, COCONUT & COIR VALUE CHAIN

Value Chain Component	#'s of participants	% women	Constraints to female participation	Illustrative Solutions
Coconut Oil Processing	50 businesses in target area. 10-15 in Bagerhat BSCIC area and rest in outside.	Women work as laborers, around 70% are women	Proximity to households. In general women mobility is limited in rural Bangladesh.	Promoting decentralization of processing units.
Fiber mills	15 businesses in target area	Again women work as labor, participation is around 80%	Again, proximity to households is the issue.	Promote decentralization of processing units.
Value added products	4-5 businesses approximated in target area such as mosquito coil manufacturers etc.	Women work as laborers.	For women working outside is only constrained by distance to workplace. However, social and cultural barriers remains as only most distressed women work outside as laborers in rural areas.	Promote decentralization of manufacturing units.

C.3 Floriculture

Women are heavily represented in the production, assembly stage of the sector and in the high end retail segment. They are mainly absent from the trading and mass retail segments of the market except at the fringes where the ultra-poor take the rejects or scraps left over from the wholesale market to sell on the streets in evening.

Although opportunities to increase female participation exist throughout the value chain, the team has prioritized three interventions with the highest payoff in the table below.

ILLUSTRATION 34 : GENDER DYNAMICS, FLORICULTURE

Value Chain Component	#’s of participants	% women	Constraints to female participation	Illustrative Solutions
Production	4,500-5,000 growers in the target area	50%	Limited production know-how as man has more access to information and mobility.	Training for women producers through progressive private companies
Assembly	400-500 women; including women working in large retail markets in Dhaka	Very high, almost 100%.	Opportunity to engage more women if work volume increases; not enough and consistent work orders	Linking with large urban traders or institutional buyers
Retailing & Export	200-300 retailers nationwide	High end retail stores (only a few) are run by women. Regular shops are owned and run by men.	Women entrepreneurs are limited in number. Regular retail shops are mostly street side with little or no fixed location. There are only one or two flower retail clusters in Dhaka.	Women who run high end retail stores sell imported flowers and are well-linked with customers and also institutional buyers. Replicating such model could be a solution.

VIII. CONCLUSION – AN INCLUSIVE ROADMAP FOR GROWTH IN THE SOUTH

The potential for USAID to accelerate growth in Bangladesh’s southern region through the non-food value chains is enormous. The following factors point to success:

- **Vibrant economy:** Khulna represents the archetype second or third tier Asian city that is the future of the region’s economies. At 5 million people, massive numbers of businesses, and easy access to rural markets and raw materials, Khulna could be the anchor for economic growth in the region.
- **Dynamic value chains:** as described above, jute, coir and floriculture represent three dynamic and growing value chains that have significant potential upside. Through an end market value chain approach, USAID could facilitate an explosion of entrepreneurship and smallholder income growth.
- **Receptivity:** in most of the sites the team visited, there had been limited, if any donor assistance. Compared to more frequented regions, the novelty of USAID project that takes an innovative and private sector approach to building competitive value chains could quickly gain traction and momentum.

As part of the broader Feed the Future initiative in Bangladesh, a tight focus on these three value chains could be the core of a Roadmap for Growth that creates competitive firms, creates prosperity and helps one of Bangladesh’s poorest regions escape the survival trap of poverty.

APPENDICES

Appendix I – Interview List

First Name	Last Name	Sector	Affiliation
Tania	Ahmed	Floriculture	Triangle Flowers
Shabbir	Yusuf	Jute	Faridpur Jute Fibres
Rashedul Karim	Mouna	Jute	Creation Private Ltd
John	Meyer	Other	Save the Children
Dr. Md. Mujibur	Rahman	Jute	BJRI
Md. Abdur	Rouf	Other	Export Promotion Bureau
Md. Jobaer	Hossain	Coconut / Coir	Natural Fibres
Mostafiz	Ahmed	Coconut / Coir	Natural Fibres
Kazi Moinuddin	Raj	Coconut / Coir	Khulna Coconut Fiber/Assetli
Sheikh Abul	Kalam	Coconut / Coir	Coconut Fibre Foam
Md. Mozahidul	Islam	Jute	Jewel Jute Limited
Mahmudur	Rahman	Jute	M/S A R Jute Trading
Altaf	Hossain	Jute	Faridpur Jute Fibres Ltd.
Shahedul	Islam	Jute	Bengal Braided Rugs Limited
Kazi Shahed	Ferdous	Other	Traidcraft
Md Nasim	Uddin	Floriculture	wholesaler
Md. Abdul	Aziz	Floriculture	wholesaler
Ruhul	Kuddus	Floriculture	input seller
Tayyebur	Rahman	Coconut / Coir	EFADF Agro-Business
Md Nuru	Sheikh	Bamboo	bamboo/products wholesale
Siddukur	Rahman	Bamboo	bamboo/products wholesale
Ikram	Shikder	Bamboo	bamboo trader
Ashok Kumar	Shaha	Coconut / Coir	Shaha Enterprise
Kamrul	Islam	Floriculture	Monowar Enterprise

Appendix 2 – Vegetable Value Chain Research & Interview Notes

The following research and analysis on vegetables is included in this report due to close linkages in cropping patterns and complementarity of vegetables with the non-food value chains. As noted above, this data is meant to highlight challenges in the value chain and move towards some illustrative solutions vs. dictating exactly what should be done in the vegetable value chain.

Snapshot of Current Vegetable Exports from Bangladesh²³

As hypothesized by the research team, the majority of current vegetable exports seem to go to the Bangladeshi Diaspora in the UK with 65% of exports destined to this market.

Importers					
	Exported value 2010 (USD thousand)	Share in Bangladesh's exports (%)	Exported quantity 2010	Quantity unit	Unit value (USD/unit)
Total	12220	100	4323	Tons	2827
United Kingdom	8022	65.6	2667	Tons	3008
Italy	1910	15.6	704	Tons	2713
Bahrain	640	5.2	415	Tons	1542
Canada	615	5	109	Tons	5642
France	382	3.1	107	Tons	3570
Malaysia	272	2.2	110	Tons	2473
Germany	136	1.1	47	Tons	2894
Greece	84	0.7	32	Tons	2625
Sweden	80	0.7	27	Tons	2963
Singapore	66	0.5	101	Tons	653
Ireland	13	0.1	4	Tons	3250
Austria					
Belgium					
Japan					
Netherlands					
Russian Federation					
Somalia					
Switzerland					
United States of America					
Sri Lanka					
China					
Thailand					

²³ Source: ITC Trademap, accessed November 2011.

Bangladesh Administrative Districts



Table 30. Household cash income by income sources (TK) and district

Income source	Jessore		Savar		Total sample	
	Mean	%	Mean	%	Mean	%
Vegetable cash income	1,151	54.0	1,242	45.4	1,197	49.1
Other farm cash income	736	34.5	570	20.8	653	26.8
Agriculture labor income	240	11.2	234	8.6	237	9.7
Off-farm income	151	7.1	411	15.0	281	11.5
Other (transfers)	22	1.0	115	4.2	69	2.8
Total household income	2,132	100.0	2,739	100.0	2,436	100.0

Source: Survey conducted in collaboration between AVRDC and BARI. N = 300 farmers.

Type of Actor: Chain Super Market

Respondent: Syed Alamgir, Executive Director, ACI Limited.

Interview Summary

- ACI currently has 42 outlets (35 in Dhaka, 4 in Chittagong and 3 in Sylhet). It started with a larger number of outlets and nationwide, but due to unavailability of supply in required quantity, they shut down so many of them. However, still they have plans to reopen them as the supply problem is addressed.
- Currently, ACI is buying vegetables from Karwan bazaar, Dhaka (the main vegetables wholesale market) and also from Narshingdi district through their own representatives.
- As stated, supply problem is the resultant of constraints regarding transportation, quantity, economy of scale.
- ACI has warehouse in Dhaka where they do sorting and grading and afterwards delivers vegetables to their outlets. As stated, the wastage is only around 3-5%. In Dhaka outlets, they sell around 3 tons of vegetables per day. They do not sell any imported vegetables.
- As opined, price is the main concern for them. Wherever, they get cheaper they would go. According to them, buying from farmers would cost them higher and hence cannot buy from them. If bulking can be done by traders from a certain group of farmers, they are ready to buy regularly but again it has to be consistent.

End-user (vegetables) Interview 1

Interviewee : Rajeeb Samdani

Managing Director

Golden Harvest Agro Industries Ltd.

Tejgaon Industrial Area

Date: 26-10-2011 Day: Tuesday Time: 12.30P.M.

Q: Golden Harvest is one of the few exporters to have entered the mainstream market in the U.K. Could you give a brief introduction of your company?

A: Golden Harvest is a BRC (British Retail Consortium) approved company. A major retail store TESCO sells Golden Harvest frozen fries. While we have access to the UK market, USAID has really assisted us in promoting our products in the middle –east. They helped us to participate in the Gulf Food Fair in 2009 for the first time. We have also received assistance in sourcing from PRICE (USAID project). Recently we have received a project plan (mainly technical aspect) from Winrock International under USAID funded project for a cold chain.

While we have been an export-oriented company, we are planning to focus on the local market in future.

Q: Why would you shift from exports to local market?

A: The local market is growing rapidly – purchase for home consumption at ‘superstores, increasing number of fast food outlets where ‘french fries’ are a staple are two examples. And margins are higher.

Q : In spite of the cash incentives on agro-based exports?

A :Cash incentives do not play a big role in reality. Firstly, it takes a very long time to finally get the incentive. Secondly, buyers abroad are aware of this policy and push down prices accordingly. So it is really not an ‘additional benefit’ to the exporter and it certainly does not trickle down to the farmer level.

Q : What are the main challenges in exporting frozen food products, namely vegetables ?

A : Infrastructure like power, cold chain. But power has always been a problem and all investments to date have their own power generation system that is built into the 'project cost'. So in a sense it is not a challenge. On the other hand, lack of a country-wide cold chain is certainly a problem. There is also a challenge in overcoming the way that Bangladesh is viewed globally. This has to be a challenge to be taken by the Government.