Sustainable contract farming initiative

Contract Farming Landscape Assessment Report

What is this Resource?
This document is a presentation produced for ACI Agribusiness that includes the results of a contract farming (CF) models landscape assessment with a specific focus on perishable produce in SE Asia, India, Africa, and Bangladesh. It also includes evaluation criteria, key considerations, and a recommendation for the model that is most suitable for the client.

It was produced by Accenture Development Partnerships (Laurin Rennell, Jordan Hauser and Roberta Ahern) who worked on this Business Innovation Facility project from July to September 2012. They provided the foundation framework (landscape assessment, model evaluation, operating and financial model development and pilot advice) for ACI’s contract farming initiative. The Business Innovation Facility was engaged to design, develop and test a business model for the sustainable contract farming pilot programme, identify a partner for the pilot and support its implementation.

Who is it for?
This document will be useful for inclusive business practitioners, academics and individuals who are researching and/or developing a contract farming initiative or who want to know more about the farming environment in Bangladesh.
Overview
Current situation and objectives

External Assessment
Contract farming in the global marketplace

Internal Assessment
Contract farming in Bangladesh

Contract Farming Model Evaluation
Success criteria & CF model components

Next Steps
Deliverable Overview

Purpose
- The purpose of this deliverable is to provide an assessment of contract farming initiatives in the global marketplace

Objectives
- The primary objectives of this deliverable are to:
  - Provide visibility into what initiatives are taking place and how they apply to Bangladesh
  - Define the social and commercial objectives that compose a successful contract farming model
  - Determine which model is most suitable for a pilot phase considering the current conditions faced by Bangladesh and the client
  - Discuss the key model enablers that drive success
  - Open discussion on what the immediate next steps are for the client and Bangladesh to launch and execute a contract farming initiative for perishable produce
As a quickly-emerging county with one of the world’s fastest growing populations, there is a substantial need to provide adequate produce to the masses while balancing the social and commercial agendas with alleviating poverty

- Contract farming is not widely practiced or adopted in Bangladesh
- Bangladesh does not have a consistent supply of high-quality crops to meet the demand
- Farmers have limited access to quality seed, fertilizer, technology, & education
- Market prices fluctuate daily and vary between regions

National rollout of a sustainable contract farming model beginning with a phased pilot approach

- Large commercial client to partner with small scale farmers through a mutually beneficial contract
- Initiate a 3-4 month pilot program
- Implement a sustainable and scalable contract farming operating model built mutually between the client and small-scale farmers

Successful project implementation will improve the livelihoods of small-scale farmers as well as provide the client with a sustainable supply of high-quality crops while meeting the social and commercial objectives set forth

- Scalable model that provides sustainable profit for both farmer and client
- Reduced crop production risk, increased income security for farmer
- Increased brand awareness and improved social responsibility of client
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Contract Farming Worldwide

A holistic view of contract farming in the global marketplace

U.S.
- CF accounts for 40%+ of food production
- Sugar (96%), Fruits (60%), Cotton (52%), Poultry (88%), Pork (61%)

India
- Prominent in Punjab Region
- High level of Gov’t support
- 13/28 Agricultural state boards are directly involved in CF
- Agrocel: Basmati Paddy; Hindustan Lever: Tomatoes; Pepsico: Potatoes

Ghana
- Pineapple, Tomato & Oil Palm
- Trusty Foods: Tomato; Fresh Del Monte: Pineapple

Colombia
- Financial incentives provided by Gov’t to adopt CF methods
- Passicol Factory: Blackberry, Passion fruit & Papaya

Brazil
- CF accounts for 70% Poultry, 40% Pork & 35% Soybean production
- Korin: Broiler Chickens

Chile
- Coopeumo Ltd: Avocado, Citrus fruits & Asparagus; Chacay: Asparagus & Berries for Frozen Food Industry

Kenya
- CF used in Tea, Tobacco, Sugar & Horticulture
- Frigoken: Frozen Vegetables; Kevian Ltd: fruits for ‘Pick ‘N’ Peel’ & ‘Afia’ juices; Coca-Cola

Zambia
- CF accounts for 100% of Cotton (260,000 farmers), Tobacco & Paprika
- Dunavant: Cotton; Cheetah: Paprika

Mozambique
- CF accounts for 100% of Cotton & Tobacco production
- Dimon: Tobacco; York Farms: Vegetables

Indonesia
- High level of Gov’t support
- CF commonly used for Poultry, Rice & increasingly for vegetables
- CF has raised the incomes of over 500,000 farmers
- PT Toyota Bio: Sweet Potato; PT Pertani: Seed for soybean, Corn, Rice & Peanuts; Bimandiri: Fruits & Vegetables for Carrefour

Thailand
- Prominent in the North
- Actively promoted by Gov’t since 1980s
- Frito Lay: Potatoes; KC Foods: Sweet corn

Zambia
Five Contract Farming Models:
There are currently five unique contract farming models being used by various companies in the global marketplace.

1. The Nucleus Estate Model
2. The Centralised Model
3. The Multipartite Model
4. The Informal Model
5. The Intermediary Model
# Nucleus Estate Model

The following provides a summary of the nucleus estate model and how it relates to the current capabilities of the client and Bangladesh

## The Model
- Direct form of contract farming common in **developed** countries
- Company provides all material and management inputs and **also manages the estate or plantation**
- Suitable for lower value crops and crops that don’t require traceability to individual producers
- Typical products: Tea, coffee, herbs & tree crops

## Examples
- Mkwasine – Sugarcane (Zimbabwe)
- Papa New Guinea – Oil Palm
- Stora Enso - Tree Crops (Indonesia)

## Advantages
- Enables close level of supervision with a smaller governance structure
- Requires lower ratio of extension staff to outgrowers (than centralised)
- Greater potential to reach more outgrowers in a larger geographical area
- Can allow for quicker scaling up
- Provides opportunity to integrate smaller farmers
- Useful for products that require **immediate processing** after harvest

## Disadvantages
- **Limited social benefits** for rural communities; Company is employing farmers to work *their* land rather than empowering farmers to cultivate their own
- Difficult to trace production to individual farmers
- Administrative costs and potential criticism for owning land

## Why this model is **not** currently suitable
- Many corporations in Bangladesh do not currently have deep relationships with farmers and would therefore require an intermediary to provide this link
- Ownership of land is a major issue in Bangladesh and many corporations do not own the land required for this model
- Rising land prices in Bangladesh make it difficult for corporations to adopt this model
The Centralised Model

The following provides a summary of the centralised model and how it relates to the current capabilities of the client and Bangladesh

The Model
- Similar to the nucleus estate model (company provides all material and management inputs) except the company does not manage the estate or plantation
- Model can be referred to as 'outgrower schemes' where company has its own field staff that manage smallholder farmer groups
- Contracting company provides inputs to farmers, purchases 100% yield, processes, packages, and markets product
- Large scale, generally tens of thousands of farmers
- Vertically coordinated with quota allocation and quality control
- Typical products: Tobacco, Cotton, Sugar, Coffee, Bananas, Rubber

Examples
- Thai Sugar Industry
- Nestle Ltd – Rice Farming (Malaysia)
- Hindustan Lever – Tomatoes (India)
- Del Monte – Pineapples for export (Ghana)
- Lecofruit – French Beans (Madagascar)
- Novasen – Peanuts (Senegal)
- Hortico Agrisystems – Vegetables (Zimbabwe)

Advantages
- Allows for close monitoring and direct feedback from farmers
- Assurance of clear communication between company and farmer
- Company has total control of inputs & processes - assured quality control
- Company can respond quickly to farmer issues

Disadvantages
- Limited social benefits/limited integration of small scale farmers
- Danger of farmer exploitation
- High level of company personnel required (extension officers) resulting in higher costs per outgrower
- Slower scale up pace
- Danger of extra contractual marketing

Why this model is not currently suitable
- Many corporations, including the client does not currently have staff available to allocate to performing the CF field-level operations
- Lack of deep relationships with farmers and therefore requires an intermediary to provide this connection
- Agreeing to purchase 100% of crop yield is a significant responsibility
# The Multipartite Model

The following provides a summary of the multipartite model and how it relates to the current capabilities of the client and Bangladesh.

## The Model
- CF that involves a *variety of bodies* often including statutory parties, private companies, the government and farmers.
- Generally uses a 3rd party organisation for credit provision, management, processing and marketing.
- Model tends to focus on strategic crops with national significance.

## Examples
- Metro & Tan phu Trung cooperative – Vegetables (Vietnam)
- ALCOSA – Frozen Vegetables – (Gautemala)

## Advantages
- Limited level of financial commitment by the company.
- Government involvement can help ensure contracts are upheld.
- Multitude of actors reduces risk on behalf of each party involved.

## Disadvantages
- High level of internal coordination required – model often fails as a result of this not being achieved.
- Multiple actors make it difficult to coordinate interests.
- Harder to monitor/introduce complicated production systems.
- Harder to ensure that correct crop production processes will be applied.

## Why this model is not currently suitable
- Client does not require multiple bodies due to their ability to supply all the inputs required for the produce.
- For the model to be successful, a significant level of government involvement is often required – this is not currently available in Bangladesh.

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**Business Innovation Facility**
The Informal Model

The following provides a summary of the informal model and how it relates to the current capabilities of the client and Bangladesh.

The Model
- Characterised by individual entrepreneurs or small companies
- Contracts are informal and made on a seasonal basis
- Material inputs are often restricted to the provision of seed and basic fertilizer
- Often requires government support services such as research and extension
- Typical Products: fruits & vegetables that require minimal processing or packaging

Examples
- Favco – Vegetable wholesale (Zimbabwe)
- Agriseeds – Seed crops (Zimbabwe)

Advantages
- Financial investment on behalf of the company is minimal
- No formal commitment on behalf of the company – reduced risk

Disadvantages
- High risk of both farmer and company defaulting
- Contracts need to be enforced by law to ensure they are upheld
- Increased risk of extra-contractual making
- Difficult to control quality requirement

Why this model is not currently suitable
- Client wants to develop a model that uses formal contracts
- There is currently no legal regulatory framework established in Bangladesh to ensure contracts are upheld
- Corporations and client alike cannot afford to take the risk of farmers defaulting
- Client is focused on developing a high-quality end product
## The Intermediary Model

Having explored the other four models, the team concluded that the intermediary model is the most appropriate for the client and Bangladesh at this stage.

### The Model:
- Involves a sponsor or middle man who provides linkage between farmer and company.
- Contracts are generally established between company, intermediary (NGO, farmer groups, collectors) and farmers.
- Staple food crops such as potatoes, rice & mangos.

### Examples
- Nestle India Ltd - Dairy
- Passicol Factory – Fruits (Colombia)
- Pepsi Frito Lay – Potatoes (India)
- Frigoken – Canned Vegetables (Kenya)

### Advantages
- Company gains access to farmers and local inputs that they might not otherwise have.
- Company can dictate the level of involvement of the intermediary (e.g. still control inputs or production processes).
- Large opportunity for scalability (remove the intermediary once the model is established and transition towards the centralised or nucleus estate model).

### Disadvantages
- Danger of company losing control of production base.
- Technical policies and management inputs can become diluted and production distorted.
- Hard to ensure quality control of product.
- Model disconnects direct link between farmer and company – farmer does not feel valued.
- Hard for the company to monitor/track any illegal activity.
- Model becomes overly reliant on the intermediary.

### Why this model IS suitable
- Client has all the inputs required to grow fresh produce but does not have resources to organise local farmers.
- Bangladesh has many NGOs that currently have established relationships with farmers to provide this link.
Contract Farming: India

Contract farming has been widely adopted throughout India by both small and large companies with strong support from the Indian Government.

**Pepsico – Potato (Intermediary & Centralised)**

*Model Design:*
- One of the earliest promoters of CF in India, starting operations in 1989
- 22,000 farmers produce potato (12,000 farmers), paddy, barley, tomato, and chilies under both the Intermediary & Centralised models
  - Intermediary model, farmers own 1-2 acres/each
  - Centralised model, farmers own 2-4 acres/each
- Contracts are fixed with farmers with open market linkages available
- Price is fixed yet amendable when market and fixed price gap is too large
- Crop insurance and lost-cost inputs provided
- Contract model is guided by mutual trust

*Benefits of Model:*
- Potato yield increased from 16 tons/ha to 52 tons/ha
- On average, farmers have seen earnings rise from Rs 7,500/acre to Rs 18,00/acre
- Farmers have reduced debt, reduced crop failure rate, 99% farmer retention rate over 10 years

**Hindustan Unilever – Tomato (Centralised)**

*Model Design:*
- Tomato production in Punjab region and has been in practice since the '90s
- Currently produce 1/10 of world tomato production - 650 tons daily employing 400 contracted farmers
- Farmers are encouraged to set their own production quotas with adequate storage provided to them during off season

*Benefits of Model:*
- Production yields of farmers are 64% higher than farmers not under a CF model
- Farmers income has increased due to the use of hybrid seeds and an assured market

*Challenges faced:*
- High quality rejection rates by companies
- Delayed deliveries to factories and delayed payments
- Large amount of pest attacks
- Contracts biased against farmers
- Emphasis is often placed on larger farms as opposed to smallholdings
Contracting Farming: Kenya
CF is widely used throughout Africa particularly in Kenya, Ghana, Zimbabwe, and Zambia. Many projects are overseen by a government-appointed CF taskforce

Frigoken – Frozen Vegetables (Centralised & Intermediary)

- Largest producer of premium processed vegetables – 10,000 tons are produced annually from the Nairobi plant for supermarket chains, European companies, and the largest vegetable producer in Europe (Bonduelle)
- Majority of farmers are small-scale landowners but model also includes large and intermediary farmers
- 100% of production is done under contracts
  - Contracts have a different design for each farmer group (i.e., small, medium, and large)
  - Contracts can be for individuals or for groups under the centralised or intermediary model
  - Group receives a paycheck bi-weekly then disperses to individual farmers
- Frigoken has vast network of field agents to manage farmers
- Bonuses are provided for superior quality

Intermediary Model:
Small holders → Mt Kenya Gardens Ltd (MKGL) → Frigoken
- MKGL manages thousands of small-scale farmers on Frigoken's behalf
- Farmers work in self-formed groups; each individual signs a contract on a yearly basis
- Groups approach MKGL for contracts, MKGL assesses each group and awards contracts based on criteria
- MKGL controls all inputs. Farmers initially financed their own inputs but in order to finance expansion (50% of seed and 100% of chemicals are pre-financed to farmers), MKGL took on this role

“The easiest way to engage farmers is through groups” – Frigoken Executive
Contract Farming: SE Asia

Indonesia

PT Pertani - Seed for soybean, corn, rice & peanuts (Intermediary)

_Model Design:_
- 200-300 small-scale farmers
- Farmers are provided with free seed and extension advice from officers who visit farmers 4 times per growing season
- Farmers receive _spot-consumption price + 5% margin_
- Buy-back prices are not the highest in markets, but farmers are loyal due to other inputs, support, etc.

_Benefits:_
- Farmers receive advice on growing techniques, guaranteed prices and free seed
- **Farmers under contract have significantly higher gross margins than those without contract**

Thailand

Snap Frozen Vegetable Industry (Intermediary)

_Model Design:_
- 2 companies directly contract out to middlemen or collectors who organise over 30,000 farmers to grow soybean, green beans and baby corn
- **Collectors control and supervise 200-250 farmers**
- Collectors are responsible for all field activities from sowing to harvesting
- Collectors are paid a commission based on the total production of farmers they manage
- Company agronomists dictate the variety, type of fertilizers to be used as well as the sowing program
- Field officers provide technical support to collectors

_Outcomes:_
- Particularly successful with soybean, baby corn, sweet corn, and potatoes - Potato farming contracts have increased from 1,927ha (1994) to 4,386ha (2007)
- CF has expanded to 6 provinces in N. and 3 in the E.
Contract Farming: South America

Colombia

Passicol Factory – Fruits for Export (Intermediary)

*Model Design:*
- Passicol Factory focuses on growing passion fruit, blackberry, and papaya
- **400 farmers** are contracted into **14 working groups**
- Passicol contracts with working groups/associations, who then sub-contract members
- Passicol has **no direct linkage with farmers**
- **Working group provides inputs** to farmers, collect produce and guarantee contracted volume to Passicol
- Working group recovers the admin and overhead costs from payment from Passicol before settling account with farmer

Chile

Chacay Coop – Asparagus & Berries for domestic & foreign markets (Intermediary)

*Model Design:*
- Small-scale producers → Chacay (intermediary) → Industrial Companies
- Chacay is responsible for processing, selection, washing, and packaging. The Industrial company finalises packaging
- Farmers have **formal contractual agreements with Chacay** and deliver the produce to their warehouses.
- Chacay deducts the value of inputs from the amount paid to the farmers
- **Price is determined based on size and quality**

*Outcomes:*
- Increased income of small-scale farmers; Increased employment (through Chacay expansion); Improved livelihoods of farmers’ families

*Success Factors:*
- Development of administrative, productive, technical, and commercial capabilities
- Innovative relationships with farmers
- Assured demand for product
- Decreased cost of commercialisation (transportation, sales commissions, and expenses)
**Key Insights Discovered**

Key insights and leading practices identified to be recurrent across the globe

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**Continual Challenges Faced**

- Informal agreements – failure to uphold contracts
  - Side selling by farmers
  - Company refusing to purchase produce
- Lack of regulatory framework to enforce contracts
- Contracts biased against farmers
- Problem of quality control
- Crop failure – who bears the risk?
- Traditional vs. modern farming techniques – adaption to new technology
- Irrigation (Availability of water)
- Rising land prices

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**Critical Success Drivers**

- A **profitable end-market** for the product that promises mutual gains
- **Flexible and accommodating companies** that are open to change
- **Cohesive/Formal contract** – mutually developed
  - Clear criteria for grower selection
  - Guaranteed/Assured Inputs & Loan Recovery
  - Land tenure
  - Social considerations
  - Training & Information
  - Duration & Price stabilisation – flexible pricing models
  - Regular and guaranteed payment
- **Regulatory framework** to ensure contracts are enforced
- **Government Role** – legal system & legislation
- **Solid relationship between farmer and company** built on trust and longevity
- **Organisational framework** – Group organisation for extension and delivery
  - “On the ground presence” – Extension Staff (advisory role)
  - Frequent lines of communication between farmer and company
  - Active engagement of company top management
Internal Interviews
Discussions with key stakeholders generated similar thoughts and concerns but also identified potential opportunities for client and Bangladesh

Motivations:
- Increase profit margins for farmers and improve their livelihoods
- Provide a reliable buyer for the farmers and give access to technology and information
- Secure a direct link between farmers and commercial partner that is sustainable in the long run
- Maintain a strong profit margin as a whole for all parties involved

Challenges:
- Agreeing upon a price with the farmers:
  - fair price vs. market price
  - prices for perishable crops (i.e., tomato, cucumber, etc.) are particularly volatile
- Securing contracts: difficult to ensure that farmers will uphold contracts and not side-sell
- Monitoring: ensuring proper and appropriate use of inputs
- Time concerns: it takes 2-4 years to establish a strong and trusted relationship with farmers
- Working with farmers: farmers lack education and do not fully understand the complete value chain or look to the long-term results
- Crop failure: agreeing on who should bear the risk (i.e., crop insurance)

Opportunities:
- Providing access to technology & techniques that will not only be a lifetime asset to farmers but will also increase profits (reduce cost of production, increase yield, and reduce wastage)
- Building on existing CF models utilised by relatively similar companies
- Building long lasting relationships with farmers
- Improving the lives of the poor through social involvement
- Creating a holistic production cycle that uses and incorporates required inputs

“We’re here to help people and promote better livelihoods throughout Bangladesh….we want to be the integrator in this country”

“We can do this, we just need to start somewhere”

“We have wanted to do contract farming for a long time but haven’t due to the FEAR OF LOSS.”
Field Visit – RDA & Mohasthan Garh
The team visited the Rural Development Academy and a village near Mohasthan Garh in order to gain a deeper insight into current farming methods

RDA
*The RDA is currently working with 2,400 women seed producers focusing on rice and vegetables*

- Scheme started in 2005 with one woman and has expanded to 2,400 to date
- RDA provides inputs for first two years then leaves the women to work independently with the knowledge gained
- RDA targets poorer women as they *want* the opportunity
- *Communication* is the key to the program’s success

Mohasthan Garh Farmers
*The farmers in this village work entirely independently and have limited access to the latest technology, inputs, training, or outside market knowledge*

- Farmers are not getting the *right solution* to problems (pests etc.) from their suppliers
- Farmers are experiencing extremely volatile market prices on a daily basis
- Largest challenge faced is gaining the *access to technology & information*
- Farmers *would* support a contract farming agreement if they are guaranteed access to better inputs, commitment from company, solutions to crop problems, and a fair and mutually developed buy-back price
Field Visit – Sirajgonj
The team met with farmers in Sirajgonj who are currently engaged in a group-farming model with a local NGO

A local NGO has partnered with farmers in Sirajgonj and grouped them into Livestock, Fishery & Agriculture units. The team met with a group of maize farmers and discussed how the current arrangement works. The meeting enabled the team to fully gauge the farmers’ opinions and concerns with regards to the group model approach and provided an insightful contrast to the independent farmers in Mohasthan Garh.

Program Design:
- Current model supports ~610 farming groups, comprised of ~25 farmers each
- The program reaches the home of over 15,000 families
- Groups are comprised of Landless farmers (<0.5 acre), Marginal (up to 1.5 acre), and Small (>1.5 acre)
- Groups meet bi-monthly with the RSSC to share best practices, learning’s, etc.
- ~20% of crop is still lost to waste or crop failure

Farmers NEED:
- Pesticide, fertilizer training
- Improved access to quality seed, fertilizer, education

Farmers WANT (if they are to be involved in contract farming):
- Security of buyer / agreed-upon buy-back price
- Increased formal training & access to inputs
- Village improvements, school supplies for children, scholarships, etc.
Field Visit – Gazipur
The team met with a small-scale CF operation that specialises in growing ‘niche’ products for top-rated hotels and restaurants

A small, privately-held agriculture business that produces niche products such as asparagus, broccoli, iceberg lettuce, and zucchini has empowered the use of contract farming with poor farmers. Poor farmers enter into informal contracts that specify what crop they are to grow and these are purchased in cash at an agreed price. These vegetables are then supplied to top-rated hotels and restaurants in Dhaka.

Program Design:
− Current operations support 3 farms all within 2 hours of Dhaka
− Each plot of land is comprised of 1-3 acres
− Crops are focused on “western” vegetables such as asparagus, broccoli, lettuce, zucchini, etc.
− Model is successful when using poor, independent farmers that are “needy, hard-working, and honest”
− Farmers are grouped and managed by a group leader, who also farms
− Farmers / group leader are responsible for daily transport of produce to Dhaka
− Contracts with farmers provide a fixed cost for both inputs and buy-back
− Business’ profit margin is ~10% and additional ~15% is distributed to farmers

Key Takeaways from the visit:
− Model is sustainable and producing a high-quality yield
− Farmers are engaged, happy, and have seen their livelihoods improve
− Farmers have a guaranteed buyer
− The model currently faces few competitors
− Model is inclusive and capable of expanding for export production
Contract Farming in Bangladesh

Contract farming is not completely new to Bangladesh but remains a selective, rather than common practice.

CF is currently being primarily used for ‘Niche’ produce, products that require processing, and Poultry production. There are many areas and opportunities for growth.

Poultry Farming - Aftab Bahumukhi Farms Ltd (AFBL) (Kishoreganj District)
- Begun in the 1990s with just 20 farmers
- Success has led to the creation of an inclusive model being implemented in 1994 that currently uses 350 farmers
- Company provides technical & professional expertise to rural farmers (both small and large)
- Inputs were supplied on credit and then purchased in cash from 2003
- Farmer is responsible for transportation costs of both inputs & outputs
- Price: market price + margin, but in 2003 when the market crashed ABFL was able to secure a price below the market by covering procurement and distribution costs on the farmers behalf
- Production risk lies 100% with the producer

Oyster Mushrooms (niche product supplied to restaurants & hotels)– (Mymensingh District)
- Model funded by United Nations Development Programme (UNDP)
- 55 producers, 20 of which are poor farmers
- Trader sells inputs to farmers (Raj Mushroom-Dhaka spores, Spore bags)
- Trader purchases the produce back at a fixed price – TK100/Kg -negotiated by UNDP and then sells on to buyers

Bombay Sweets – Potato & Peanuts (recently started) (Habiganj District)
- Bombay Sweets needed to ensure continual supply of agri-based inputs necessary for their products
- Bombay Sweets joined with development partner ‘Katalyst’ to develop a pilot model for contract farmer in multiple areas.
- High level of investment is required; Bombay Sweets is in need of government support.
- Bombay Sweets currently does CF on a small scale with potato & peanut farmers but is looking to expand.
Challenges Specific to Bangladesh

The following are key challenges that Bangladesh faces when setting up contract farming models:

Bangladesh faces the common challenges associated with contract farming but also has a unique set of obstacles that need to be addressed in order for contract farming to become a fully established and sustainable practice.

- **Environmental Pressures**
  - Unpredictable weather patterns; Flooding & Cyclones
  - Irrigation & water supply
  - High level of chemicals in the soil

- **Weak Transportation Arteries**
  - Illegal toll collection increases transport costs and thereby increases commodity prices
  - Quality of transportation infrastructure creates delays and increased costs from farm gate to market

- **Lack of Infrastructure**
  - Insecure power supply
  - Limited to no cold storage for fresh produce

- **No Crop Insurance**

- **Building trustworthy relationships**

- **Farmers are fixated on current market prices rather than the long term**

- **Very Limited Government Support**
  - No CF monitoring body
  - Limited funds to support CF initiatives
The field visits to RDA, Mohasthan Garh, Sirajgonj & Gazipur combined with client interviews meetings were incredibly insightful and confirmed that the intermediary model would be the most suited for the client at this current time. This, in addition to the team’s independent research on contract farming in Bangladesh, allowed the team to identify key factors that need to be considered when developing the model.

- **Time needed to establish trustworthy relationships with farmers**
  - Communication channel between client employees and the farmers
  - How the field staff interact with farmers

- **Configuration of farmer working groups**
  - The danger of overly powerful working groups vs. working with poor independent farmers

- **Transportation & storage considerations**
  - Location of farm in relation to main transport routes
  - Decision over who should cover the transport
  - Access to cold storage

- **Inconsistent market prices**

- **Low level of farmer education**
  - Farmers find it hard to think long term and are fixated on the current market price when it comes to negotiating a contract

- **Farmers not getting the ‘right’ solutions to crop issues**
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Success Factors
The following factors must be addressed by all engaged parties in order for a Pilot model to be sustainable and scalable

Commercial Party
- Establish desired profit margins
  - Increased Revenue
  - Reduced Cost (Inputs supplied below market price, reduced transport costs, financing)
- Increased profit for SBUs
  - Greater demand for product
  - Improved brand recognition
- Integration of the different SBUs
  - Improved Coordination
  - Model for future Integration
- Branding opportunity
  - Increased Revenue (through increased presence & market share)
  - Input linkage to product/consumer
- Improved social awareness/responsibility
  - Partnership with local villages and families
  - Improved public awareness of client

Farmers
- Assured demand
  - Less price fluctuation
  - Consistent revenue
  - Guaranteed profit margin
- Assured inputs
  - Increased yield
  - Improved quality
  - Reduced chance of crop failure
  - Lifetime enablement
- Improved livelihood
  - Better housing, Improved healthcare, Increased savings, Improved education
  - Community benefits through greater investment
- Retaining local agriculture communities
  - Retain youth and agriculture
  - Reduce urban migration

Intermediary (NGO)
- Provide finance
- Maintenance of groups
- Maintain contract terms & conditions
- Oversee on-the-ground operations
- Provide guidance, support, and insight to commercial parties were and when necessary

Business Innovation Facility
Key Considerations for CF Model Evaluation

To determine the most appropriate CF Model for a commercial party’s inclusive business initiative, the following factors must be evaluated:

- **Commercial Returns**
  - Overall Return on Investment (ROI) as well as Strategic Business Unit (SBU) ROI
  - Integrated SBUs

- **Social Returns**
  - Partnerships with farmers
  - Improving livelihoods
  - Strengthening community presence and relationships

- **Company Investment**
  - How much is the client willing and able to invest in initiative
  - Potential for success of the contract farming initiative

- **Control of End Product**
  - Level of control of the product quality
  - How much does client want or need be involved throughout the production process
As the client begins its CF initiative, the model chosen must have a low level of implementation difficulty and meet both the commercial and social objectives.

The diagram illustrates the challenge and value of social return along with the value of commercial return. The difficulty of implementation for the client is indicated by the size of the circle.

- **Challenge**: High
- **Value of Social Return**: High
- **Value of Commercial Return**: High
- **Possible**: Intermediary Model (with NGO)
- **Kill**: Centralised Model
- **Possible**: Nucleus Estate Model
- **Possible**: Multipartite Model
- **Possible**: Informal Model
- **Possible**: Intermediary Model

Difficulty of Implementation for the client is indicated by the size of the circle.
Investment & Control Analysis for CF Model

When determining the most effective CF model, the level of investment and degree of control over the end product must be evaluated.

- **Informal Model**: Cooperation becomes more complicated with several partners and requires the establishment of contracts.
- **Multipartite Model**: One partner takes on majority of financial and operational responsibility and becomes the key intermediary partner.
- **Intermediary Model**: As experience, responsibility, and financial investment grow, one partner takes control and becomes the central company.
- **Centralised Model**: Central company takes complete control and responsibility and controls all aspects, including ownership of land.
- **Nucleus Estate Model**: Multiple parties are eliminated and the model is governed by one lead partner and one intermediary.
- **Client Pilot**: As a starting point, cooperation becomes more complicated with several partners and requires the establishment of contracts.

The diagram illustrates the relationship between company investment and control of product, with low investment/low control at the bottom-left and high investment/high control at the top-right.
### Intermediary Model: In-Depth Analysis

The team recommends that the client focus efforts on developing an intermediary CF model capable of scalability in the future.

#### Strengths
- Increased & stable income due to assured prices
- Timely supply of inputs & production
- Credit provision by contracting company
- Guidance / education provided to farmers
- Incentive for increased performance
- Higher quality & quantity yields
- Decreased transaction costs
- Long-term relationships

#### Weaknesses
- Harder to ensure quality of small farmers
- Risks associated with farmers cultivating a new crop
- Risk of contractor refusing to purchase agreed quantity
- Improper or incorrect advice/guidance by intermediary
- Limited legal counsel of farmers
- Delays in payment by company
- Misunderstanding of objectives between company & intermediary
- Disconnect between company and farmers

#### Opportunities
- Pooling of resources by both contracting company and farmers
- Lower cost of production for both the farmer & client
- Ensured inputs & outputs
- Maintenance of uniform quality
- Emergence of grower/farmer associations
- Increased technology and sharing of ideas
- Improved community presence by contracting company

#### Threats
- Exploitation of farmers by contracting company
- Farmers unaccepting of new crops/techniques
- Breach of contract from either end
- Side-selling to market or other collectors
- Indebtedness of growers to contracting company
- Fear of farmers that company will “steal” land
- Lack of/limited education in rural areas
- Intermediary may steer model in wrong direction
- “Honeymoon” period dies and becomes too business-driven
Criteria for the CF Model Pilot

The following criteria have been developed by the joint team for the Pilot and must work cohesively in order for the initiative to be successful.

Client Corporate
- SBUs determine appropriate inputs for the selected crop
- SBUs support farmers through training and education activities
- Corporate monitors and evaluates the Pilot progress through performance measurements submitted by Intermediary Partner (NGO)

Intermediary Partner (NGO)
- Recruits and assists farmers to join the pilot
- Facilitates contract negotiations and relationship between farmers and commercial partner
- Manages input requirements and distribution, farmer credits, and crop buy-back according to contract

Client Steering Group
- Provides inputs to farmers
- Sells outputs

Farmers / Location
- Dependent on existing regions that NGO has presence & relationships established
- Close proximity to Dhaka to minimise transport
- Agro-ecological suitability for crop
- Farmers comprised of 40% Landless, 40% Marginal, and 20% Small (parameters set forth for current project scope)

Crop / Product
- Parameters: short growing season & perishable crop
- Tomato to be used for Pilot phase
- Cucumber under consideration for full rollout
- Opportunity to brand as client product
Components of the CF Intermediary Model

When constructing the CF model, there are several aspects that need to be considered and evaluated.

- Buy-back Price
- Production Inputs
- Social / Goodwill Supplements
- Resources / Labor
- Cost of Land
- Crop Insurance
- Capital Funding
- Agreement on Quality Standards
- Transportation
- Handling / Packaging
- Administration / Coordination
CF Model Pricing Options for Pilot
The team has developed three base pricing models for consideration

1. **Pre-fixed / Set Buyback Price**
   This model is dependent on the commercial partner setting a mutually-agreed upon (and mutually beneficial) buyback price with the farmers that is fixed for the duration of the contract.

2. **Market Variable Buyback Price**
   This model is contingent on providing a buyback price to the farmers based on a market average instead of a seasonal or contracted fixed price. Options include:
   - Buyback priced based on the daily market price + a fixed % in addition
   - Buyback price is based on the past 3-5 day regional market average price
   - Buyback price is a fixed price but additional x% of price difference is given if market variability is more than y% above the fixed price

3. **Volume Based Buyback Price**
   This model provides the farmer with a fixed buyback price for a percentage of the yield, leaving the remainder of the crop to use at the discretion of the farmer. Options include:
   - Commercial partner provides a fixed buyback price for xx% of crop yield, leaving the farmer responsible for the remainder
   - Commercial partner provides a fixed buyback price for xx% of crop yield, leaving the farmer responsible for the remainder but will buy remainder if farmer chooses to sell to commercial partner. If remainder is sold to client, will be sold at daily market rate (or TBD)
Pricing Model Variations

There are several options that could result in a successful CF model, client must assess all the associated risks and challenges in order to select the *right* pricing model.

<table>
<thead>
<tr>
<th>CF Model Options</th>
<th>Commercial Partner</th>
<th>Farmers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pre-fixed / Set Buyback Price</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Fixed at high-end mkt price</td>
<td>▪ Establishing a fair price</td>
<td>▪ Commercial party not upholding the contract</td>
</tr>
<tr>
<td>- Fixed at average mkt price</td>
<td>▪ Signing contracts</td>
<td>▪ Exploitation</td>
</tr>
<tr>
<td>▪ Farmers defaulting on contracts</td>
<td>▪ Increased quality / quantity</td>
<td>▪ Crop insurance</td>
</tr>
<tr>
<td>▪ Large + mkt. fluctuations</td>
<td>▪ Farmer attrition</td>
<td>▪ Perceived loss when market may be higher</td>
</tr>
<tr>
<td>▪ Farmer attrition</td>
<td>▪ Long-term relationships</td>
<td>▪ Guaranteed profit compared to production cost</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Market Variable Buyback Price</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Day-of mkt price + x%</td>
<td>▪ Providing the farmers with the price they perceive as correct</td>
<td>▪ Mkt prices too deflated compared to production cost</td>
</tr>
<tr>
<td>- 3-5 day mkt avg</td>
<td>▪ Increased mkt analysis</td>
<td>▪ Uncertain revenue</td>
</tr>
<tr>
<td>- Day-of mkt price + x% if mkt spike of &gt;y%</td>
<td>▪ Not being able to recover input costs</td>
<td>▪ Market price analysis</td>
</tr>
<tr>
<td>▪ Mkt prices over inflated</td>
<td>▪ Increased communicatio with farmers</td>
<td>▪ Price aligned to the market</td>
</tr>
<tr>
<td>▪ Not getting 100% of output</td>
<td>▪ Providing the farmers with 'best of both worlds'</td>
<td></td>
</tr>
<tr>
<td>▪ Monitoring the output quality/ quantity</td>
<td>▪ Not guaranteed to sell 100%</td>
<td></td>
</tr>
<tr>
<td>▪ Providing farmers with 'best of both worlds'</td>
<td>▪ Responsible for selling remainder of crop</td>
<td></td>
</tr>
<tr>
<td>▪ Not getting 100% of output</td>
<td>▪ Guaranteed profit compared to production cost</td>
<td></td>
</tr>
<tr>
<td>▪ Monitoring the output quality/ quantity</td>
<td>▪ Maintaining multiple buyer relationships</td>
<td></td>
</tr>
</tbody>
</table>

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Pricing Model Evaluation Criteria
Evaluation of the risk and return related to each pricing model as well as consideration of the associated components, will help the client in determining the most effective pricing structure for the Pilot model

<table>
<thead>
<tr>
<th>Pilot Model Options</th>
<th>Risk to Client</th>
<th>Risk to Farmer</th>
<th>Client ROI</th>
<th>Sustainability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Fixed high-end mkt price</td>
<td>🌅</td>
<td>🌅</td>
<td>🌅</td>
<td>🌅</td>
</tr>
<tr>
<td>Pre-Fix average mkt price</td>
<td>🌅</td>
<td>🌅</td>
<td>🌅</td>
<td>🌅</td>
</tr>
<tr>
<td>Day-of mkt price + %</td>
<td>🌅</td>
<td>🌅</td>
<td>🌅</td>
<td>🌅</td>
</tr>
<tr>
<td>Past 3-5 day average mkt price</td>
<td>🌅</td>
<td>🌅</td>
<td>🌅</td>
<td>🌅</td>
</tr>
<tr>
<td>Day-of mkt price + x% if mkt spike of &gt;y%</td>
<td>🌅</td>
<td>🌅</td>
<td>🌅</td>
<td>🌅</td>
</tr>
<tr>
<td>Volume-based fixed price</td>
<td>🌅</td>
<td>🌅</td>
<td>🌅</td>
<td>🌅</td>
</tr>
<tr>
<td>Volume-based + additional x% at mkt price</td>
<td>🌅</td>
<td>🌅</td>
<td>🌅</td>
<td>🌅</td>
</tr>
</tbody>
</table>

- Risk to Client: likelihood of farmers defaulting on the contract to side-sell
- Risk to Farmer: difference between what client is paying vs. what the local market price is offering (opportunity cost)
- Client ROI: return on investments made by client comparative to the other models
- Sustainability: based on level of risk to client and Farmers combined with level of ROI for client

- Very high
- High
- Medium
- Low
- Very low
Contents

Overview
Current situation and objectives

External Assessment
Contract farming in the global marketplace

Internal Assessment
Contract farming in Bangladesh

Contract Farming Model Evaluation
Success criteria & CF model components

Next Steps
Immediate Next Steps

In order to maintain project momentum, the client must assess the options that have been presented and select a model to design a Pilot initiative around

1. Select contract farming model

2. Develop operating model for program pilot
   - Inclusive of operating structure, governance model, performance management approach, and high-level financial modeling

3. Determine and agree upon aspects of operating model

4. Design and implement Pilot
   - Recruit and organise farmers, facilitate contract creation, manage inputs/outputs, and provide monitoring and support
Additional resources:

You will find more ideas, information and resources on innovation and inclusive business on the Practitioner Hub (www.businessinnovationfacility.org).

There is a ‘know how’ section on farmers as suppliers and clients: http://businessinnovationfacility.org/page/know-how-farmers-as-suppliers-and-clients

All of the existing projects are outlined: http://businessinnovationfacility.org/page/projects-landing-page-template

And our ‘Starter pack’ covers everything from what inclusive business means and who it involves, to what support is available and how to find it: http://businessinnovationfacility.org/page/starter-pack

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