

Growth-oriented Microenterprise Development
(GMED) Program

*Value Chain Assessment Report:
Broiler Chickens in Maharashtra State*

FINAL REPORT
(Summary Version for Distribution)

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LIST OF ACRONYMS

| | |
|-----------|--|
| ACDI/VOCA | Agricultural Cooperative Development International/Volunteers in Overseas Cooperative Assistance |
| AFE | Action for Enterprise |
| DOC | Day Old Chicks |
| GMED | Growth-Oriented Microenterprise Development |
| USAID | United States Agency for International Development |
| USDA | United States Department of Agriculture |

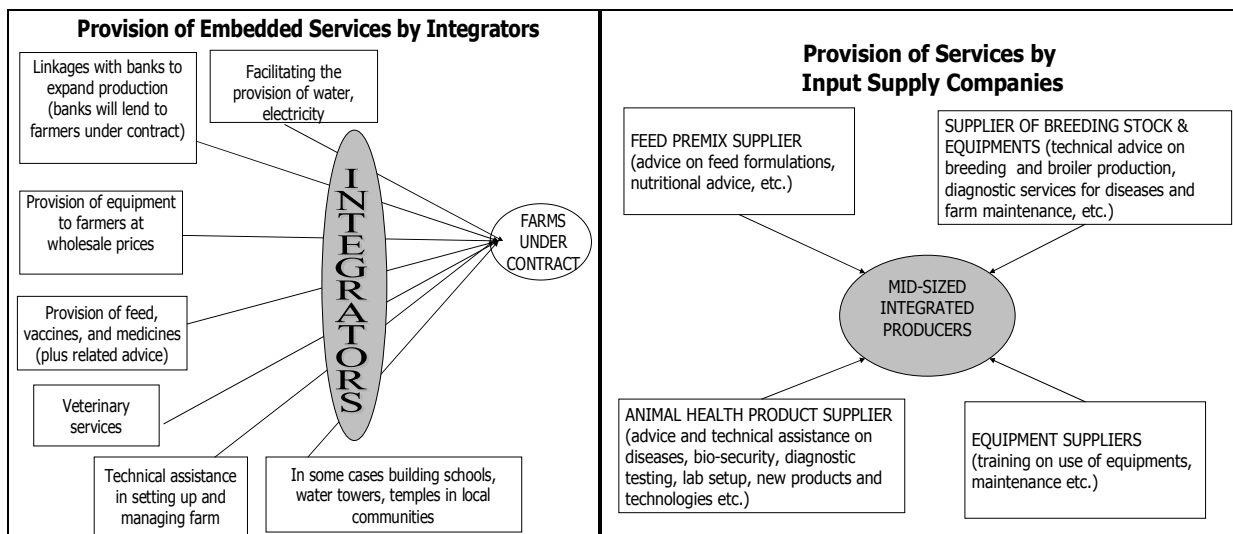
EXECUTIVE SUMMARY

This report presents the results of an assessment of the broiler chicken value chain in Maharashtra state, conducted for the India GMED Program. The objective was to understand the functioning and dynamics of the value chain, identify key players, and propose initiatives the GMED program could undertake to promote increased enterprise income and employment.

The growth of the broiler chicken sector in India can be attributed in large part to the growth of poultry "Integrators" who carry out manufacturing of inputs, breeding, contract farming, wholesale, and retail trade in broiler chickens. Their operations have resulted in increased production efficiency and have reduced marketing margins and consumer prices. Most integrated producers contract out all or part of their broiler production to outside farms. They provide them with chicks, feed, medicines, technical advice, and a market outlet for the grown broilers.

According to most sources, 90% of broiler chickens are still sold to consumers as live birds in retail markets. Demand for chilled or frozen dressed chicken is growing, but slowly. Most of those interviewed feel that India is not currently in a competitive position to export broiler chicken given the higher costs and exchange rate compared to Brazil.

Inter-firm Cooperation - Examples of inter-firm cooperation include: 1) the wide array of technical support that integrated producers provide to their contract farmers, and; 2) the "free" technical assistance and support services that input suppliers provide to the integrated producers as part of their commercial relationship. These relationships are depicted in the diagrams below.



Governance structures - One can observe two main governance structures in the broiler value chain. The relationship between integrated producers and contract farmers can be described as a "directed" relationship where the integrated producer defines what is to be produced, buys all of the production, and provides extensive monitoring and technical support. Relationships at the wholesale and retail levels, however, are market structures - with many customers and suppliers, repeated transactions, limited flow of information, and no technical assistance taking place.

In identifying potential GMED program interventions the assessment team incorporated a methodology based on identifying "commercially viable" (sustainable) solutions to identified constraints. This methodology included identifying:

- 1) Value chain constraints and opportunities
- 2) Solutions to value chain constraints
- 3) Existing/ potential providers of these solutions
- 4) Challenges that providers face in providing the solutions in a commercially viable (sustainable) manner
- 5) Interventions that GMED could undertake to address the challenges providers and users of the solution face (thereby ensuring that solutions are sustainable)

A summary of selected interventions identified by the assessment team based on interviews as well as a focus group discussion with mid-sized Integrators in Pune is presented below:

Upgrading of Contract Farmers

Cost share training of line supervisors working for participating Integrators in:

- Latest farm management techniques appropriate for farmers under contract.
- Techniques for motivating farmers/creating incentives to adopt these techniques
- Methods for organizing farmer meetings to exchange experiences

Upgrading of Integrated Producers

Cost share training of agents/line supervisors of selected input supply companies to improve their ability to provide training and technical assistance to integrators

Expanding Market for Hygienically Processed Chilled Chicken

Develop different activities to promote forward integration into retail of chilled fresh chicken:

- Identify/promote creative ways of promoting urban retail sales of fresh/chilled chicken
- Assistance to integrators in developing cost/benefit analysis of retail operations
- Investigate how to get certification of processed chicken to promote consumer confidence
- Identify low cost hygienic processing technologies and present these to integrators
- Assist provision stores to develop cold storage capacity for chilled/dressed chicken.

Promoting Public Awareness

Work with coalition to organize awareness campaign on value and convenience of hygienically processed chilled chicken (assessment team gained tentative commitment for this from directors of the two leading poultry firms in the country (VH Group and Suguna).

Promotion of Rational Price Determination

Support development of a coalition that could collect information on availability of broilers and make that information available on web site

General Recommendations: [part of full report]

I. Introduction

This report presents the results of an assessment of the broiler chicken value chain in Maharashtra state, conducted for the India GMED Program, a three-year USAID funded project aimed at improving the commercial performance of growth-oriented small scale enterprises. The field work for the assessment took place from December 2-18, 2004. The objective of the assessment was to understand the functioning and dynamics of the value chain, identify key players, and propose possible initiatives the GMED program could undertake to promote increased enterprise income and employment (see Appendix 1 for scope of work).

Specific activities completed during the value chain assessment included:

- compiled and reviewed available secondary data;
- conducted a pre-trip planning meeting with two other teams conducting value chain assessments to ensure a consistent analytical approach and reporting format
- contributed to the design and presentation of a training/planning workshop for assessment team members held from Nov 29 - Dec 1 in New Delhi.
- conducted over 40 interviews with key informants and market actors in the value chain (see Appendix 2 for list of those interviewed).
- conducted focus group discussion with seven mid-sized integrated producers from the Pune region on December 7th (see appendix 3) to validate information and identify potential GMED program interventions.
- Carried out de-brief with GMED COP (Dec 18th) and ACIDI/VOCA (Jan 5th, 2005)

During the initial planning workshop in New Delhi, the team agreed that the main questions/tasks for the value chain assessment would be:

- identification of value chain dynamics, including governance structures and inter-firm relationships
- identification of key constraints & opportunities
- identification of commercially viable (sustainable) solutions to key constraints
- assessment of supply and demand of targeted solutions
- identification of potential GMED interventions to support targeted solutions

The report begins with a presentation of market trends in the broiler chicken value chain. This is followed by a subsector/value chain "map" and description of the market functions and participants. Value chain dynamics and aspects of inter-firm cooperation are then presented followed by a presentation of key constraints and opportunities. The report then presents a section that describes potential commercially viable solutions to key constraints, challenges facing providers of these solutions, and illustrative interventions to be considered by the GMED project. The report concludes with some general recommendations for the project.

The majority of information from this report was gained through interviews with key informants and market players. This was necessary given the absence of reliable official data.

II. Description of the Market

This section provides an overview of the market for broiler chicken in India, and more particularly for Maharashtra state (see map below).



Demand

Available data indicate that, since the early 1990's, poultry meat has been the fastest growing sector of animal product production and consumption in India. Factors driving the industry's expansion include quickening growth in per capita incomes, a young and increasingly urban population, and declining real poultry prices. With recent studies suggesting that most Indians do not have strict vegetarian dietary preferences, income and price are likely to continue to influence rising demand.¹

According to key informants interviewed, current worldwide consumption of poultry breaks down as follows:

- Developed countries - 35 kg per person
- Worldwide - 7 kg per person
- India - 1.4 kg per person (though it is estimated that there are up to 300 million Indians who currently consume roughly 4.6 kg per year).

Those interviewed feel that there is ample room for growth in consumption and concurrent growth in production (consumption growth is currently estimated at 6% per year).

¹ Landes, Persaud, and Dyck, India's Poultry Sector Development and Prospects, USDA Economic Research Service, January 2004

One key informant told the team that only 22% of the total population (estimated at 1 billion) are strict vegetarians and will never eat meat. Some consume meat primarily at festivals and holidays. As the price of chicken has come down in many areas (due primarily to more efficient production and marketing by integrated producers) a rise in consumption has been noted.

Emergence of the Integration Model

The growth of the broiler chicken sector in India can be attributed in large part to the growth of poultry "Integrators", primarily in South and West India. These Integrators combine or "integrate" a variety of activities into their operations including the manufacturing of inputs (feed and animal health products), breeding, contract farming, wholesale trade (live and dressed) as well as retail of fully processed and semi processed chicken. Their operations have resulted in increased production efficiency and have also reduced marketing margins and consumer prices.

India's adoption of the contract farming model of integration (based on US model) has been very successful to date - an achievement that has been difficult to replicate in other countries. Under this model, the Integrator contracts the farming functions to independent farmers, providing them with day old chicks (DOC), feed, medicines, and technical assistance. The Integrator guarantees a base price for the "buy back" of the broilers when they are full grown (after roughly 42 days). In Maharashtra state, there are currently more than 50 integrated poultry operations (most of which do contract growing though not all) and over 4000 contract farms.

According to one key informant the percentage of total farms under contract growing arrangements, by state, is as follows:

- North: 10%
- East: 15-20%
- West (including Maharashtra): 50%
- South: 80%

Some predict that in the next ten years there will be 100 integrated producers in the country (roughly 90 mid-size integrators and 10 large-scale ones) and that the large scale Integrators will control the greatest share of the broiler chicken market.

Over the past ten years it has been difficult for small independent poultry farms. Many went out of business in the 1990's (even before contract farming became popular) due to:

- Increases in feed costs
- Decrease in prices for broilers
- Shortages of one-day chicks
- Competition from larger farms with greater economies of scale
- Medicines and feed no longer available on credit

Many independent growers therefore find the provision of inputs and guaranteed returns of the contract farming model an attractive proposition.

As integration has expanded, some formerly independent hatcheries and feed millers found it necessary to become Integrators themselves or risk going out of business. Integration has brought two important changes to the industry - lower average costs of production through improved technology, economies of scale, and management practices, and, particularly, a collapsing of the margins previously commanded for the various production inputs; and smaller producer-retail

margins and lower retail prices for poultry meat, which has been a key demand stimulus in the southern and western regions.²

Today, it is generally felt that poultry operations (not including contract farms) must have "deep pockets" to weather difficulties that might arise (due to diseases, and events like the bird flu scare). If producers lose too much on one or two production cycles due to unforeseen events it is very difficult for them to get back on their feet. Producers need financial reserves to be able to survive downturns.

There is a high degree of inter-firm cooperation in the broiler chicken sector. In 2004, for example, during the bird flu scare, consumption and production dropped dramatically. Several contract growers stated that it was the integrated producers that helped them survive during this time by providing financial support. Some integrated producers said their suppliers of breeding materials, medicines, etc. provided concessions during that time to help them survive (some of the breeders offered free chicks to help the farms get restarted after the bird flu scare). One therefore sees a high level of interdependency that promotes mutual support.

Live Bird versus Cold Chain Sale of Broilers

According to most sources, 90% of broiler chickens are still sold to consumers as live birds in retail markets (once chosen they are slaughtered or "dressed" on the spot). Demand for chilled or frozen dressed chicken is growing, but slowly. Some believe that it will grow in popularity as many urban professionals don't want to wait around for the dressing process to take place. According to most, the live-bird market will continue to dominate India for the next few years. Institutional demand for chilled and frozen birds will continue to expand, but movement by household consumers to chilled or frozen products is likely to be slow.³ Others project that in five years the percentage of chicken sold in cold storage will approach 50%. As the market for chilled/frozen broilers grows, more opportunities will arise (due to improved transportation and storage options) for market players to take advantage of regional comparative advantages in the country.

In most areas of India it is not prohibited to slaughter chickens in or around retail shops - though this is changing in some places due to concerns about hygiene. In New Delhi an ordinance was recently passed in 2004 by the Municipal Authority banning the slaughter of chickens in public markets and street side shops. According to a key informant, this policy will be progressively enforced over the next few years. This should create additional incentives for retail operators to establish cold chain infrastructure and increase the demand for chilled/dressed chicken (versus live birds).

Export Market

Most of those interviewed feel that India is not currently in a competitive position to export broiler chicken. One of the principal reasons given is the high costs of inputs (maize, soybean meal) relative to the major competitor (Brazil). Costs of maize are \$120/ton in India versus \$85/ton in Brazil. Costs of milled soybean are \$230/ton in India versus \$165 in Brazil. Some cite the greater number of highly integrated firms in Brazil with greater cost efficiencies and a better overall climate for poultry production. Finally, the Brazilian currency has devalued sharply over the past several years which has made their exports even more competitive. It is estimated that

² Ibid, p. 11

³ Ibid, p. 19

the average cost of production by integrated producers in India is 27 rupees per kilo, compared with 18 rupees per kilo in Brazil. This differential allows Brazilian exports (even after adding transport costs) to be cheaper worldwide, even in Asian countries. Other competitors on the world market include the U.S. (leg parts), Thailand, and China.

A few companies have found a market niche, however, in producing and exporting processed, breaded chicken nuggets and other quick preparation products. This remains, however, a very small amount compared to total production.

III. Description of market participants / inter-firm cooperation / governance

3.1 *The Functions and the Participants*

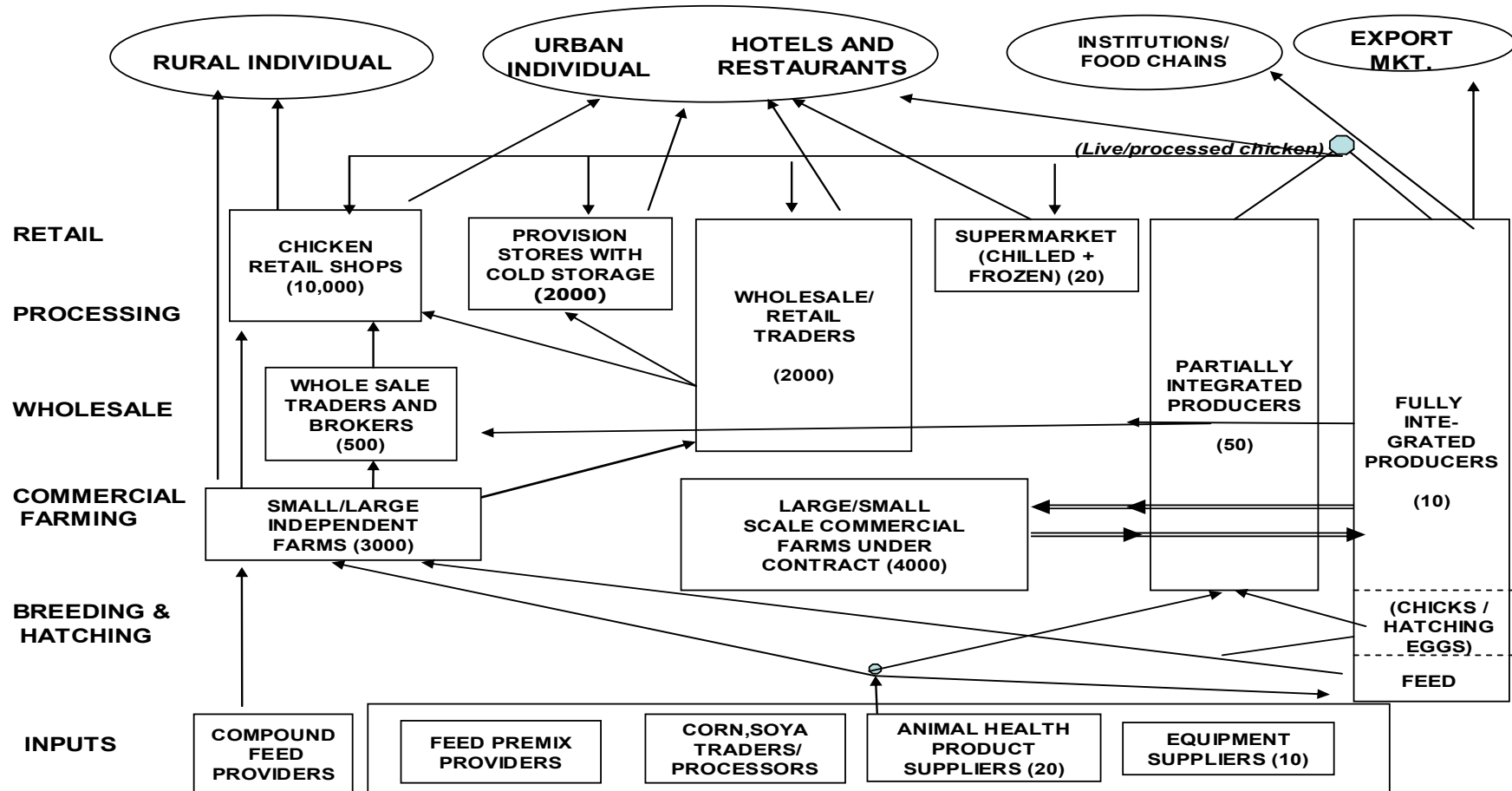
This section will present the principal functions of the value chain along with the market players (participants) who perform those functions. The main functions in the value chain are:

- Input supply (feed, animal health product, equipments)
- Breeding
- Farming (raising) of broiler chickens
- Wholesale distribution (live and dressed)
- Processing
- Retail sales (live and dressed chicken)

These are described more fully below. Each section heading represents a function on the value chain map, while the subsections describe market actors who perform those functions (see subsector map on next page for a graphical presentation of these functions and actors). Where possible the estimated number of market actors performing each function is mentioned.

Subsector/value chain map

BROLER CHICKEN VALUE CHAIN MAP



3.1.1 Input supply

There are a number of large and small companies involved in the manufacturing and sale of inputs into broiler farming. These include:

- Compound feed providers
- Feed premix providers
- Corn and soybean meal traders/processors
- Animal health product suppliers
- Equipment suppliers

Compound Feed Providers - These companies produce feed mixes for sale primarily to independent poultry farms that do not produce their own feed. As more and more companies become integrated and produce their own feed, the sale of compound feed is diminishing and is focused primarily in regions where integration is less developed. Major companies in this category include Godrej and Japfa - who have feed manufacturing units and distribution systems around the country. They buy the raw maize from maize traders and soybean meal from soy millers. Given the downturn of the market for feed, some of these firms have decided to engage in integrated production themselves. Almost all feed is sold on a cash basis.

Feed Premix Providers - These companies produce specialized supplements (premixes) for the initial growth phases of broiler chickens. Feed premixes are made up of concentrated amino acids, medicines, feed supplements and minerals - which are later diluted by maize and soybean meal at the farm level. The companies that produce these have a significant investment in specialized equipment, manufacturing processes, and quality control that result in a superior product. While integrated producers can produce quality feed for the later stages of broiler growth, most do not have the economies of scale to justify investment in the production of specialized premixes for the early stages. They therefore purchase these from the feed premix providers which include Avitech, Gurgaon, and Godrej.

Maize, Soybean meal Traders/Processors - These traders/processors provide corn and milled soybeans to integrated as well as independent producers. These inputs are then used to produce feed, and represent up to 70% of the cost of feed. Large and small maize traders exist throughout the country. There are approximately 15 mills that provide soybean meal to poultry producers.

Animal Health Product Suppliers - Animal health product suppliers supply a range of products including vaccines, bio-security products (chemicals for cleaning/ sanitation), antibiotics, nutrients/enzymes that increase feed absorption, etc. There are an estimated 20 major suppliers with operations in Maharashtra state.

Profile of Animal Health Product Supplier - Polchem Hygiene Laboratories, Ltd. -

Their products and services include: enzymes to promote better digestion by broilers, diagnostic lab services, bio-security products, testing kits, products to improve air quality in bird houses, etc. They have 3 full time technical staff, support staff, consultants and 25-30 sales representatives. They provide products to most major Integrators and conduct no-cost seminars, training, and technical assistance for their clients (as part of their commercial relationship). They also provide free services to assist Integrators to set up their own labs. Polchem sees customer service as the key to differentiating themselves in the market.

Equipment Suppliers - These companies offer feeders, waterers, climatic controllers, incubators, feed milling equipment, etc. They include companies such as Powertech, Buller (feed milling equipment), Dhumal (water suppliers), VJ Equipments, Diamond Incubators (incubators), etc. There are an estimated 10 major suppliers.

Technical Services - The team learned that most integrated producers receive technical support and services from input supply companies as part of their commercial relationships with them (more on the inter-firm cooperation between supply companies and producers in presented in section 3.2.). There are also independent consultants in the poultry market providing a range of services including feasibility studies (for expansion into breeding, processing, etc.), feed formulation advice, veterinary service, etc. In many cases, these consultants are hired on a short term basis by input supply companies to work with their clients.

Some input suppliers provide free diagnostic testing services for poultry producers. The VH group, for example, has a network of labs throughout the country. The government also has labs though they are not used as much as the private sector ones. Lab services are used to analyze feed composition, conduct post mortem analyses, etc.

Institute of Poultry Management and Technology - this institute was established by the VH group to support the industry. Located on the outskirts of Pune, it is a nice facility that includes dormitories, classrooms, recreational facilities, and a farm with 70,000 layers and broilers. Students spend two hours on theory in the classroom, and six hours of practical work in the farm per day, learning skills they could use either as an agent for an Integrator or the manager of a poultry farm. The Institute offers courses for 3 months (\$70), 6 months (\$120), and 1 year (\$200). Food and lodging is \$150/month. Students must have completed their 10th year of education to participate. The Institute has roughly 80 students at any one time (most are part of the 6 month course). There is a six month waiting list to participate. The Institute is an autonomous organization primarily financed (subsidized) by the VH Group (the majority of Board officers are also from the VH Group). Other sources of revenue include proceeds from the sale of broilers and eggs, and participant fees. The Institute also accepts students from foreign countries. The VH Group sends approximately 60 its own agents to the Center every 2 years for a 1-2 week refresher workshop. The Center expressed great interest in working with GMED to sponsor training or other activities - they are looking for sources of additional support.

3.1.2 Breeding and Hatching

Breeding refers to the process of developing eggs and/or one-day old chicks for use by broiler farmers. Some of the terms used in breeding include:

- "Pure line" and "Grandparent" stock - pure line chickens produce grandparent stock and the grandparent stock produce parent stock (see below). These chickens are at the top of the genetic line, and only a few Indian companies possess them (VH group has "Cobb" pure line under license with Tyson's Foods in the U.S., Suguna has "Ross" breed from the UK, Godrej has "Herbert" breed, etc.).
- "Parent" stock - these produce the eggs that are used to produce broiler chickens for consumer consumption. Only the more advanced integrated companies have their own parent stock - as this requires more sophisticated production, bio-security, and hatching facilities.

Integrated Producers - Breeding is carried out primarily by the largest fully integrated producers, who can be differentiated into two categories: 1) those with their own pure lines,

grand parent, and parent stock along with hatcheries (these include the VH group and Suguna), and; 2) those with parent stock and hatcheries. The latter group purchases their parent stock under a licensing agreement with the first group. Some companies from both groups sell fertilized eggs and/or day old chicks (DOCs) to other producers (see map), while others produce eggs/chicks only for their internal operations.

One finds different perspectives from the buyers of fertilized eggs and DOCs. Some integrated producers without breeding capacity complain that they sometimes get inferior quality eggs and chicks from the breeders while others complain that they can't always get the quantities they need. One mid-sized Integrator stated that the presence of several suppliers has put downward pressure on the price of DOCs - to the point where he doesn't see the advantage of going into breeding himself. He stated that (at the time of this study) he could get DOCs for 7 rupees per chick, whereas if he produced them himself it would cost 6 rupees (a minimal savings from his perspective). Others stated that once they reach a level of production over 500,000 broilers that it makes economic sense to do their own breeding.

Profile of VH Group - Having established the company in 1971, the company founder, Dr. BV Rao is generally recognized as the "father of modern poultry industry in India. The VH Group controls the pure line stock of "Cobb" breed. Through sale and licensing of parent stock to fully integrated producers (referred to by them as "franchisees") and sale of hatching eggs/one-day chicks to others, almost 60% of broilers produced in India originate from their Cobb breed. The VH group actively supports integrated producers at all stages of development, offering them both products and complementary technical assistance. Their products (sold both domestically and internationally) include:

- breeding materials
- hatching eggs and chicks
- feed and feed supplements
- vaccines, animal health and bio-security products
- fresh and processed chicken (Venky's brand)
- incubation systems and farm equipment
- pathogen free eggs used in creating vaccines.
- Institute of Poultry Management and Technology

VH Group company assets are estimated at over \$300 million and it is reportedly the largest fully integrated poultry group in Asia. More information is available at <http://www.venkys.com>.

3.1.3 Commercial Farming

This function refers to the rearing of the broilers until they are ready for sale. It is differentiated into three segments: 1) independent non-integrated producers; 2) integrated producers, and; 3) contract farmers.

Independent non-Integrated Producers - Non-integrated farms tend to be smaller farms not engaged in feed production, wholesale, or retail sales. They purchase their feed, chicks and other inputs and after rearing the broilers, sell them primarily to traders and chicken retail shops. Their numbers are decreasing as it is difficult to produce with the same efficiencies as the integrated producers.

Integrated Producers (Integrators) - Integrated producers take on many different operations or functions in the value chain. These include the manufacturing of inputs (feed and animal health products), breeding, farming of broilers (both in-house and through contract arrangements with

others), as well as wholesale and sometimes retail sales of live and dressed chicken. There are many variations as to the different functions that Integrated Producers perform (see table below for just a few). In general however, the difference between a "fully integrated" and a "partially integrated" producer is that the fully integrated producer carries out breeding, i.e. produces their own hatching eggs and chicks.

Illustrative Examples of Integration

| Type | 1 | 2 | 3 | 4 | 5 | 6 | etc. |
|-------------------------|---|---|---|---|---|---|------|
| <i>Retail</i> | * | | | * | * | | |
| <i>Wholesale</i> | * | * | * | * | * | * | |
| <i>Own farm</i> | * | | | * | * | * | |
| <i>Contract farming</i> | * | * | | * | | * | |
| <i>Rental of farms</i> | | | | | * | | |
| <i>Feed Production</i> | * | * | * | * | * | * | |
| <i>Breeding</i> | * | * | * | | | | |
| | | | | | | | |

Most integrated producers (including some of the largest) contract out all or part of their broiler production to outside farms. They provide them with chicks, feed, medicines, and technical advice - and ensure the farmers a market for the fully grown broilers. One of the advantages to this scenario is that it minimizes the need for the integrated producer to invest in land, chicken houses, and feeding equipment - as these are owned by the contract farmer. This enables these Integrators to expand more rapidly (assuming good organization) and increase economies of scale with their feed production operations, breeding, etc.

The large integrated producers employ slightly different models in terms of contract farm size - some preferring to contract with a greater number of smaller farms and others preferring to contract with a smaller number of larger ones. Mid-size Integrators (defined as those producing from 200,000 to 500,000 broilers per cycle through their own farms and with roughly 20-100 contract farms) feel that they have an advantage over the larger Integrators in that they have a closer relationship with the contract farmers and are able to exert better control.

One of the keys to successful contract farming is a good management information system (MIS) to control the contract growing operations. One of the most advanced integrators has a computerized system where information on all contract farms is inputted daily by their agents via websites. This includes information on chicks delivered, feed delivered, mortality rates, prices paid, etc. Some have software programs that can then use this information to calculate feed conversion ratios, bonuses due to farmers, etc. Others have more modest systems that use Excel spread sheets and/or manual systems. Some of the smaller Integrators face problems getting timely communication from their agents when they are visiting contract farms that are far away (over 60 kilometers). Some feel that information and data analysis systems (MIS) will be the most determining factor to the future success and growth of Integrators.

Profile of Suguna - Started 10 years ago by two brothers with 500 birds, they currently sell 10 million broilers per month. Based in Tamil Nadu, they were instrumental in introducing the integration/contracting model to India in 1996. They currently work with 7000 contract farms throughout the country (1200-1400 in Maharashtra state). They have integrated pure line stock, 40 branches, 2200 employees and advanced MIS system based on SQL database which they use to monitor contract farming operations. They have joint venture with Supreme Foods Ltd. producing 30,000 frozen chickens per day for export to Saudi Arabia. They sell the majority of their production through traders. They sell some frozen chicken as well (have opted to only promote frozen chicken for now as they feel there are too many constraints to chilled). When entering areas where farmers are not yet familiar with contract farming they will create demonstration farms that they manage themselves. The company is set up based on cost centers where each entity of the company must "pay" the other entities for inputs and services. More information is available at www.sugunapoultry.com

Integrators employ "line supervisors" to oversee the contract farmers and "weighing supervisors" who are responsible for the weighing of broilers at the time of pick-up. The line supervisors visit the contract farmers on almost a daily basis - using checklists to review operations. Several Integrators said they prefer to hire supervisors who are not from the region they are assigned to as this relieves them from social pressures they might face working in their home areas.

Many integrated producers have their own in-house broiler production that is then complemented by contracting with other farmers. A smaller number do not engage in contract farming at all - preferring to raise their broilers on their own farms (or sometimes on farms they rent from others and manage with their own employees). They tend to be large, frequently with integrated retail operations.

Integrated producers purchase raw material (maize and soybean meal) for making feed that is used both on their own farms and distributed to contract farmers. Maize is purchased from traders while soybean meal is purchased (already processed) by soybean millers. Both are sold for cash and sometimes credit. One respondent stated that once a farm is producing or contracting production of at least 20,000 birds per cycle it makes economic sense to have their own feed mill. Most integrated producers produce mashed feed versus pellet feed (which requires more sophisticated/expensive equipment). Some of the largest integrators produce and distribute pellet feed for their contract growers which according to some (but not all) results in savings of 2-4% on feed costs. Some feel that greater efficiencies are needed to bring down feed transportation costs (especially packaging and handling).

Integrated producers conduct business with a large number of input supply companies providing feed premixes, DOCs, hatching eggs, animal health products, equipment, etc. Most of these companies have staff and consultants who provide technical assistance to the producers as a form of customer service, included as part of their commercial relationship (see section 3.2).

Most of the integrated producers interviewed stated that they had access to commercial financing if they needed it though some of the smaller ones said that they could use support in linking to financial institutions for expansion into breeding. One integrator mentioned that he is waiting to see if one of his children is interested in taking over the business before he expands further. Given the rapid expansion of the industry in recent years some banks are taking a closer look at financing the smaller integrators - especially those with smaller fixed assets that can be used for collateral.

It is important to note that not all efforts at integration have succeeded. According to some, reasons for failed efforts included:

- Poor management
- Overly rapid expansion (and accompanying large debt)
- "Selfishness" - there are reportedly some who got financing, made money initially, and then intentionally closed down their operations and defaulted on their loans.

Profile of a mid-sized Integrator (Zorabian) - Started with a farm of 1000 broilers - now has 200,000. Also does contract farming with 72 local farms that provide an additional 300,000 broilers (average contract farm size is 4000 to 5000 birds). These farms are all within a 60 kilometer radius of his farm. He has his own feed mill and hatching facilities with imported equipment from Germany and Holland. He sources his parent stock from the VH group and has invested heavily in bio-security. In addition to selling broilers he has found a market for selling poultry manure which is then used as organic fertilizer. He has also been instrumental in getting improved water supply in villages where he has large number of contract growers.

Farmers under contract with integrators - These farmers produce under contract from Integrators. In Maharashtra state they tend to be smaller operations, averaging from 1,000 to 10,000 broilers (though there are some that go as high as 30,000). These farmers have entered into contract with large integrators due to:

- their inability to compete with respect to cost efficiencies with integrated operations.
- their inability to absorb market shocks brought in by price swings, diseases, etc.

As discussed earlier, the farmer under contract is provided day old chicks (DOCs), feed, and medicines from the Integrators. The expertise for building the shed, water management, bio-security, and animal health services are provided by the Integrators - who also facilitate the procurement of low cost equipment by purchasing in bulk and deducting the cost from the revenue generated from the broiler farmers. Contract farmers can oftentimes receive bank loans based on the bank's knowledge that they are under contract with a reputable Integrator. Loans are typically made to finance sheds, electrical systems, and wells (see graphic that describes these forms of inter-firm cooperation in section 3.2).

The contract farmers receive almost daily visits from the Integrator's agents - who monitor operations and also provide training and technical assistance. Some Integrators sponsor "farmer meetings" where contract farmers from a particular area come together to exchange experiences about farm management.

The efficiency and productivity of the contract farmers is assessed in different ways by the Integrator. All measure the feed conversion ratio (FCR)⁴ and payment is made keeping the standard FCR as a benchmark. If the farmer is more efficient than the benchmark then he receives additional income and bonuses. Some Integrators use what is referred to as the European Efficiency Factor (EEF) which represents a variety of indicators including FCR, mortality, mean age, and average weight. Farmers under contract with Integrators tend to produce with a relatively good FCR of roughly 1.8, compared to 2.0 in non-contracted farms. FCR's in other large production countries are better however, around 1.5.

⁴ The amount of feed (in KGs) required in making the broiler gain one kg. Usually a FCR of 1.6 to 1.8 is considered to be good.

Based on information provided by contract farmers, the assessment team determined that a small contract farmer with 2,000 birds can make a profit of roughly \$200 for every two month cycle (\$100 per month). This size farm can be managed by two people - frequently the owner and his spouse, or a sibling. These farmers typically have other agricultural activities (rice, etc.) as well and the poultry farming typically represents half of their revenue. It is estimated that 90% of contract farms (estimated at 4,000 in Maharashtra state) are owned by men - but in most cases they are managed together with their wives.

There are many examples of contract farmers who have grown with their Integrators. Having started out with less than 1,000 birds many are now producing 10,000 to 20,000 birds. One Integrator explained that it costs roughly \$6,000 for a contract farmer to expand from 5,000 to 10,000 broilers - and that they will support them in this expansion (and agree to purchase the greater number of broilers) if the farmer has been successfully producing for at least 8 or 9 two-month cycles. In this case the Integrator also helps facilitate bank loans for the producer.

Some Integrators prefer to cap their contract growers production at no more than 20,000 birds - stating that beyond that amount the farmers pay less individual attention to the farms (preferring to hire labor for this) and that the output suffers. The team nonetheless saw contract growers for this Integrator with over 30,000 broilers in production.

Some contract farmers have more than one farm. The team met with one contract farmer who was building a second shed in a different area with the support of the Integrator he works with. Sometimes this is preferred as it keeps air quality high (having numerous sheds in close proximity can affect air quality and promote infections).

Most contract farms operate chicken houses that do not have environmental controls (fans, etc.). Temperature is regulated with hanging tarps that can be opened and closed as needed. According to some, environmentally controlled sheds will be necessary in the future to keep up with productivity gains - especially in areas with high temperature swings (it is estimated that farmers lose 4% of production due to lack of EC sheds).

3.1.4 Wholesale trade

Wholesale functions are conducted by wholesale traders/brokers, wholesale/retail traders, and integrated producers.

Integrated Producers: Many integrated producers have at least some forward integration into wholesaling and retailing and most are involved in the sales of broilers at multiple levels. In urban areas, they sell live birds to both wholesale traders as well as chicken retail shops. They also sell dressed (chilled and frozen) broilers to provision stores, supermarkets, hotels, restaurants and fast food chains. One larger Integrator said that he used to sell a lot to 5-star hotels in Mumbai but complained that they were the worst when it came to getting paid.

Wholesale/Retail Traders: The wholesale/retail traders have their own retail outlets apart from pure trading. Wholesale/retail traders procure from both integrated producers as well as non-integrated producers. They purchase live birds which are transported by the trader (using their own trucks especially equipped to transport live birds) from the farms to the various markets where they are sold to retailers (or delivered to the trader's own retail outlets). One trader stated

that he generally sells 25% directly to consumers at his retail shops and 75% is sold to other shops. According to estimates, there are 2,000 such operations in Maharashtra state.

These traders are associated with a large number of producers who they call regularly on their cell phones to determine availability and negotiate prices. The starting price for negotiations is based on a "declaration of procurement prices" made by the largest integrators and traders. These prices can be found daily in the classified section of the Indian Express. Traders pay a premium of 3-4 rupees per kilo for a 1,200 gram bird (not full grown) - as this size is popular with consumers who buy live birds (it is typically sufficient to feed an average family - while a bigger bird can be too much/too expensive for many and won't sell as well).

When the traders strike a deal with the producers they send out their trucks to pick up or "lift" the chickens. Wholesale/ retail traders in Mumbai generally travel to the Pune/Nasik regions - sometimes driving 4 or 5 hours to get to particular farms.

Wholesale Traders/Brokers: These traders focus exclusively on trading and do not engage in retail operations. Most operate their wholesale activities in a similar fashion to the wholesale/ retail traders above (taking title to the broilers). Others operate exclusively as a broker or "commission agent" where they charge retailers and farmers some percentage of sales in lieu of information on where to buy or where to sell. The assessment team was informed that one of largest brokers operates exclusively from his office in Mumbai equipped with multiple telephones. This broker has extensive knowledge of both producers and buyers, including when and where broilers are available at any given point of time. He essentially plays a match-making role.

3.1.5 Processing

The large majority (over 95%) of poultry consumed in India is processed using traditional manual techniques. Manual processing is carried out by retailers, as well as by integrated producers - who in turn deliver to hotels, restaurants, and individual consumers. Some of the larger integrated producers have invested in modern processing facilities - where they use mostly imported equipment in air conditioned environments. Products produced from these plants are primarily sold to hotels/restaurants, supermarkets/ provision stores, and fast food chains. In a few cases they are also exported. Other integrated producers have established more modest mechanized processes using locally produced equipment (usually not in air conditioned environments). One of these Integrators stated that he can dress a broiler for 2 rupees per day while it costs the modern facilities with imported equipment 13 rupees per day.

According to one key informant, there are currently about 23 modern or semi-modern processing facilities in India - of these there are 4 large ones. Approximately 5% of chicken sold in India is processed in such facilities - the rest (95%) is sold as live birds. Total sale of chicken is estimated at roughly \$35 million per year.

There are no stand-alone processing operations - all are integrated within the activities of market players. Several of those interviewed stated that a modern processing facility cannot be viable unless it is producing at high capacity - and that most existing facilities were not producing at full capacity. They feel that modernized processing will not become economically feasible until there is a stronger local market for dressed chilled or frozen chicken. They stated that most of the existing modern processing plants are underutilized. One exception seems to be a plant run by the VH Group that produces "Chicken in Minute" products that are further processed into

breaded portions that can be quickly cooked or micro waved. Some interviewed believe that the larger firms engaged in processing and selling chilled/dressed chicken are losing money in that aspect of their business - but they see it as a long-term investment that will begin to pay off as more and more urban consumers begin to buy chilled/dressed chicken. One of the most highly visible brands currently marketing chilled/dressed chicken on national television is the "Really Good Chicken" brand manufactured by Godrej.

3.1.6 Retail

There are a number of players involved in retailing including chicken retail shops, provision stores with cold storage, supermarkets, as well as wholesale/retail traders and integrated producers (some non-integrated farmers also sell directly to consumers).

Chicken retail shops: The largest amount of retail sales is done via "street-side" chicken retail shops. There are an estimated 10,000 of these shops in Maharashtra. These shops specialize in chicken (and sometimes other meat products). They are located in market places (such as Crawford market in Mumbai) or along streets and roads. They predominantly sell live birds, which are selected by customers and then slaughtered and dressed on the spot (this function is subcontracted in some situations and carried out in special areas near the retail shops where manual dressing is done on a larger scale for a fee). Some also have dressed, chilled chicken and chicken parts available - usually kept cool with pieces of ice. A few upscale chicken retail shops exist where consumers can get a variety of pre-cut chicken pieces, along with cooked chicken dishes that are presented in refrigerated display cases.

Wholesale/retail traders

As described earlier, these actors engage in both wholesale and retail. They sometimes have one or two retail shops - but also sell to smaller chicken retail shops as well.

Profile of Wholesale/Retail Trader - One wholesaler/retailer in the Crawford market (Mumbai) does a brisk business selling chilled dressed chicken in the market - kept cool with slabs of ice. He also has other shops in the market selling live birds, and he also wholesales to retail shops. His operation is family financed. He mentioned that it would be helpful if there was a more hygienic processing facility near the market where he could bring live birds for dressing. He stated that insurance for transporting poultry is high and that up to 10% of the birds sometimes die during transport.

Provision stores with cold storage: Chilled and frozen chicken is also sold by provision stores (small scale convenience stores that sell a variety of mostly non-perishable food items) which have cold storage facilities (refrigerators/freezers). These exist primarily in the urban areas. Some customers object to having chilled/frozen chicken in the same refrigerator as other food items. For this reason a few of the larger integrated producers have begun distributing their own refrigerator/freezer to stores that agree to carry their products. One of the constraints facing provision stores is that the refrigerator/freezers are frequently opened during the day and the rest of the store is not air conditioned - therefore the chicken does not always stay as cold as it should. In other cases owners will turn off the freezers at night resulting in some defrosting of the chicken. The next day they turn the freezers back on and the chicken refreezes - resulting in lower shelf life and potential hygiene issues.

Integrated Producers: Some integrated producers have their own retail outlet, or network of outlets for live and/or dressed chicken. This helps them to capture profits at the retail level, but also requires investment in infrastructure and staff. Others have developed brand names and are marketing them through supermarkets and selected provision stores. One producer (with the

branded product "Real Good Chicken") is marketing whole, chilled chickens in this way and has embarked on a national television ad campaign.

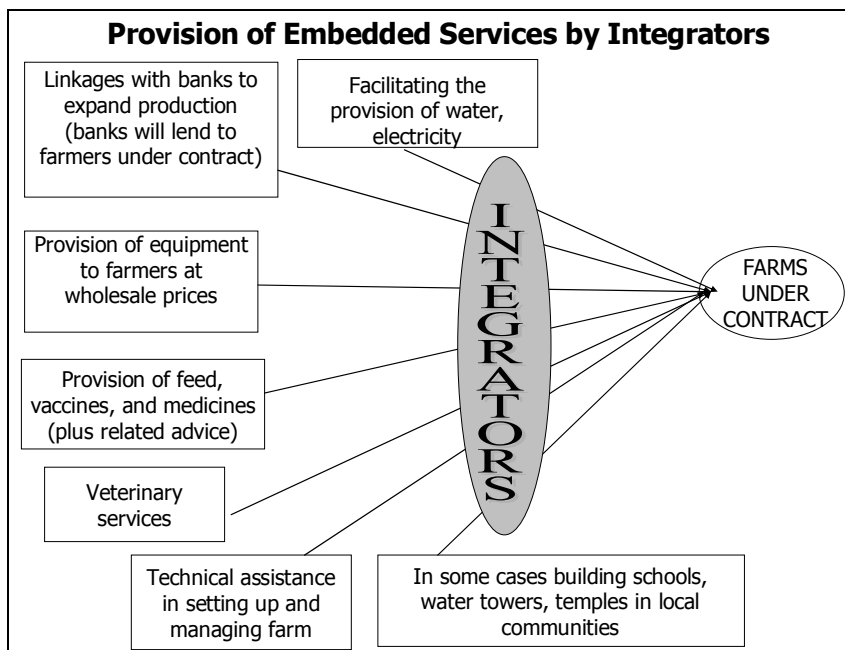
Profile of Amir Poultry - Amir Poultry is a large independent farm with over 100 retail outlets (for live chickens and eggs) in the Pune/Mumbai zone. They produce many of their broilers on their own farm but also purchase from others.

Supermarkets: Large-scale supermarkets remain relatively new phenomena in India (an estimated 20 in Maharashtra state) but those that exist carry chilled or frozen chicken. They procure primarily from integrated producers. In some cases the supermarket will package the broiler and sell it under its own brand name. The interview team learned that the Shoprite Corporation from South Africa is currently investing in supermarkets in India and will be procuring/marketing broilers in this way. In other cases (as with the "Real Good Chicken" brand mentioned above) the supermarkets will carry the brand name products from integrated producers. Growth in supermarkets is expected to be roughly 30% per year so this is a promising outlet for chilled/frozen chicken. Supermarket chains in Maharashtra include Orbit Mall, Giants, and Crossroads.

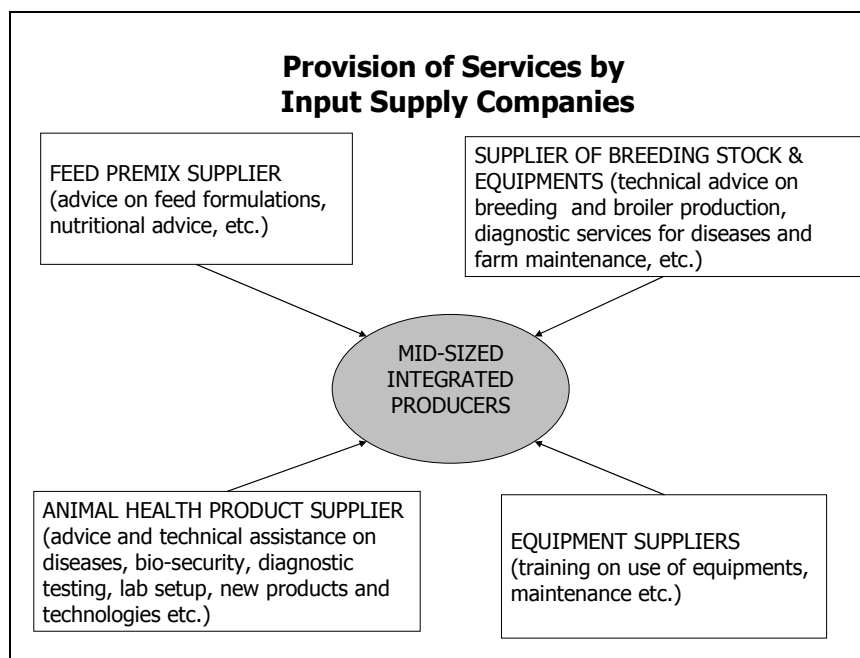
3.2 Inter-firm Cooperation

The descriptions in the previous section have described an array of inter-firm cooperation in the broiler value chain. It is strong as many of the participants depend upon one another for success. Numerous examples were cited by market actors of inter-firm support during the recent bird flu scare where integrated producers supported their contract growers and input supply companies supported the integrated producers (the flu never hit India but the ramifications were nonetheless severe). One example was given where hatcheries distributed free DOCs to producers in order to get the industry back on track.

Examples of on-going inter-firm cooperation include the wide array of technical support that integrated producers provide to their contract farmers including technical assistance, feed, chicks, etc. This relationship is depicted in the diagram below and can also be described as "embedded" services provided by the integrated producer to their contract growers (meaning that the services are "embedded" in the commercial buying/selling relationship that exists between the integrated producers and the contract farmers).



Another example of inter-firm cooperation can be seen in the relationship between input suppliers and integrated producers. Input suppliers also provide an array of "free" technical assistance and support services to the integrated producers they sell to, as part of the commercial relationship they have with one another. These suppliers are cognizant that strong relationships with and support to their clients are key to ensuring continued sales. One sees in the diagram below the multitude of services provided by the input suppliers to producers - also in an "embedded" fashion.



Those interviewed spoke of several existing associations including the Poultry Federation of India and the CLIFMA Livestock Association. These associations provide some support at a broad level but don't seem to address needs at a regional level. Two areas where joint action could be useful but is currently not taking place are: 1) a national awareness campaign on the

advantages of consuming chilled/dressed chicken and; 2) regional efforts to coordinate the selling price of broilers to avoid undercutting (this would help ensure a better price for both integrated producers and their contract farmers). For various reasons, including the intense rivalry among some of the industry's biggest players, this coordination has not taken place despite efforts by some firms to take a leadership role.

It is reported that an informal association does exist in which major players concert with one another in an attempt to set selling prices - but some mentioned that those decisions are not binding and many times are not respected. Sellers will do what they have to do to sell their product even if it means unloading it at very low prices.

3.3 Governance

The types of relationships that exist between market players in a subsector/value chain can be described in terms of "governance" structures. Understanding these structures is important in designing interventions to support targeted sectors. Criteria for determining which category of governance that relationships fall under are presented in the box below ⁵

Governance Relationships

Market-based relationship: many customers/many suppliers / repeat transactions possible, but information flows limited / no technical assistance

Balanced relationship: supplier has various customers / if supplier has few customers, customer has few suppliers / intense information flow in both directions / both sides have capabilities which are hard to substitute / commitment to solve problems through negotiation rather than threat or exist.

Directed relationship: main customer takes at least 50 percent of output / customer defines the product (design and technical specification) / monitoring of supplier performance by customer / supplier's exit options more restricted than customer's / customer provides technical assistance / customer knows more about the supplier's costs/capabilities than supplier knows about the customer's

Hierarchy: vertical integration of several functions within the firm / supplying enterprise is owned by customer or vice versa / very limited autonomy to make decisions at the local level.

Looking at the broiler sector, one can observe two main governance structures. The relationship between integrated producers and contract farmers can certainly be described as a "directed" relationship. Here the integrated producer defines what is to be produced, buys all of the production, and provides extensive monitoring and technical support. Relationships at the wholesale and retail levels, however, are very much market structures - with many customers and suppliers, repeated transactions, limited flow of information, and no technical assistance taking place.

It is said that the level of trust in directed relationships can be measured in many ways including: length of relationship, nature of contracting, interdependence, determination of prices (transparency), credit extended, and modality of payments. It is also said that high trust relationships in which the lead firm or "governor" has legitimacy with the other links in the chain tend to be associated with long-lived relationships. In these cases the governor will not

⁵ Taken from McCormick, Schmitz. 2002. Manual for Value Chain Research on Homeworkers in the Garment Industry. Brighton: Institute of Development Studies

automatically sanction or exclude a participant for non conformance but will assist them to reach required level of performance.⁶ This seems to describe the relationships that the assessment team observed between most of the integrated producers and contract farmers interviewed.

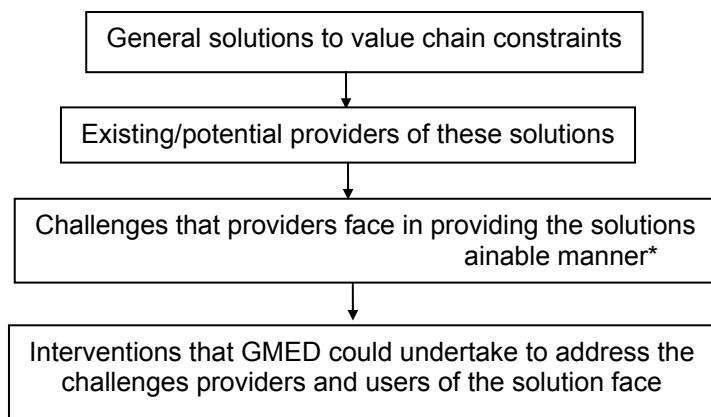
IV. Constraints, Opportunities, Solutions and Interventions

One of the principle objectives of the assessment exercise was to identify constraints and opportunities in the value chain that were holding back increased income and employment for small scale enterprises participating in the chain. The general constraints identified included:

- Some farmers under contract lack skills or motivation to move to "Class A" production and develop better efficiency (Class A producers have the highest productivity and profit, compared to Class B, C or D). This reduces their income.
- Some integrators lack skills/ technical assistance needed to further integrate their operations. This prevents them from gaining needed efficiencies and threatens their (and their contract farmers) longer term survival.
- Lack of market for hygienically processed chilled chicken results in reduced sales opportunities for farmers and integrators
- Lack of public awareness on the value of hygienically processed chilled chicken limits sales growth for farmers
- Lack of information on the projected availability of broilers for sale in a particular region results in unhealthy price competitiveness and lower prices.

The assessment team was also charged with identifying solutions to these constraints, and GMED program interventions that could help promote those solutions.

In identifying potential interventions the assessment team incorporated a methodology based on identifying "commercially viable" and "sustainable" solutions to identified constraints. This methodology included identifying:



⁶ Kaplinsky and Morris, A Handbook for Value Chain Research, IDRC, 2000, pg 74

** This would also include identifying challenges that the users face in accessing the solutions*

In this way, it is hoped that GMED interventions will:

- promote sustainable solutions that will last beyond the life of the project
- have greater outreach by working with private sector providers that have an existing network of small businesses they do business with
- not create market distortions by inadvertently competing with existing private sector initiatives

This section will present how the methodology was applied to the value chain constraints presented above. It is important to note that many of the ideas for GMED interventions came out of a "focus group discussion" that was held in Pune on December 7th with seven mid-sized integrated producers from the region (see appendix 3 for a list of these participants).

During the focus group discussion, the participants were first asked to validate value chain constraints, potential solutions, and the challenges to solutions that the assessment team had identified based on more than 30 interviews. They were then asked to propose interventions that the GMED project could undertake (in partnership with the private sector) to address the challenges and promote solutions that would have a strong impact on the sector. This meeting lasted for over four hours and produced a wealth of valuable ideas and insights (reflected in the discussions below).

Additional insights and suggestions for GMED program interventions were generated during discussions with top managers from the two of the leading firms in the industry (VH Group and Suguna).

In reviewing the proposed interventions it is important to keep in mind that the broiler industry continues to grow on its own in Maharashtra state and that there are some very efficient firms that rival those in the U.S. in terms of productivity and quality. GMED program interventions in many cases will be incremental in nature. That being said, knowledge gained from working in Maharashtra state could be easily transferred to other states where production and integration is less developed.

4.1 Upgrading of Contract Farmers

Value Chain Constraint/Opportunity

Some farmers under contract lack skills or motivation to move to Class A production and develop better efficiency (Class A producers have the highest productivity and profit, compared to Class B, C or D). This reduces their income.

Skills /implementation gaps include:

- Bio-security
- Brooding
- Feed storage
- Feed management
- Providing hygienic drinking water
- Temperature management

- Vaccinations / monitoring disease / disposals
- Shed construction

Proposed Solution

Access to improved training/technical assistance to help farmers under contract to obtain Class A rating and higher efficiency.

Providers of Solution

Integrators

Challenges Integrators Face in Providing the Solution:

- Line agents of integrators lack skills/new technologies for assisting contract farmers to improve efficiencies and move to Class A production
- Line agents lack skills on how to quickly train and motivate farmers to adopt improved practices
- Difficulty getting consistent supply of good quality inputs (chicks, vaccines) to provide to contract farmers (very few suppliers)
- Lack of computerized management information system (MIS) to manage contract growing operations

Illustrative GMED Interventions to Address Challenges

- Cost share training of line supervisors (using local/neutral consultants if they exist) in:
 - Latest farm management techniques appropriate for farmers under contract.
 - Techniques for motivating farmers and creating incentives for them to adopt these techniques
 - Methods for organizing farmer meetings to exchange experiences
(content of training would be developed / reviewed together with participating Integrators)
- Promote linkages between Integrators and different suppliers of inputs (chicks, vaccines) to create greater choice, competition, and quality
- Survey management systems being used by mid-sized integrators and develop common software that will assist with management of farms under contract (cost share).
- Set up MOU's with Integrators for these activities

4.2 Upgrading of Integrated Producers

Subsector/Value Chain Constraint

Some integrators lack skills/ technical assistance needed to further integrate their operations. This prevents them from gaining needed efficiencies and threatens their (and their farmers) longer term survival.

Proposed Solution

Technical assistance to assist Integrators to carry out further integration.

Provider of Solution

Input Supply Companies - especially feed and animal health products
(see appendix 4 for a complete list of potential providers)

Challenges Input Supply Companies Face in Providing Solution

- Some input supply companies (employees, agents, and/or distributors) lack:
 - complete knowledge of the latest products and technologies
 - techniques for demonstrating products and presenting information
 - ability to reach large numbers of Integrators (and their line staff)

- Lack of feed analysis facilities to help integrators in determining problems and developing optimal feed

Illustrative GMED Interventions to Address Challenges

- Cost share training of agents and line supervisors of selected input supply companies to improve their ability to provide training and technical assistance to integrators (especially providers of feed concentrates and animal health products).

- Assist selected input supply companies to develop lab facilities that can be used by integrators (need to get unbiased results)

Illustrative Further Breakdown of Intervention*:

Promoting Embedded Solutions to Integrators through Input Supply Companies

1. Present concept of intervention to selected input suppliers (who currently provide some kind of technical assistance). Gain understanding of what forms of assistance and training they provide and assess their interest in participating.

2. Jointly develop memorandum of understanding with interested input suppliers (solution providers) that describes the role GMED will play in building their capacity and the role they will play in making staff available, sharing information, reporting, etc.

3. GMED (together with top managers of input supply company) carries out more in-depth needs assessment with staff from both the input supply company (to determine what service improvements are needed) and the Integrators they sell to (to assess satisfaction/issues with services they currently receive).

4. Develop strategy for addressing these needs and how it will be implemented

5. Implementation

6. Performance measurement system (feedback from providers and users)

** this (and even greater) level of detail should be developed for all interventions that the project is interested in pursuing*

4.3 Expanding Market for Hygienically Processed Chilled Chicken

Value Chain Constraint

Lack of market for hygienically processed chilled chicken results in reduced sales opportunities for farmers and integrators

Proposed Solution

Access to market for hygienically processed chilled chicken (and retailing mechanism that includes cold chain)

Provider of Solution

Integrated producers

Challenges Integrators Face in Providing Solution

- Government regulations currently do not ban informal processing of birds at retail outlets
- Consumer mistrust of processed chilled chicken
- Lack of information on low cost hygienic processing technologies
- Lack of retail outlets with available cold chain for chicken
- Problem of competing with current buyers if they do this
- Consumers do not like chicken stored in refrigerators with other food items which forces retailers to have separate refrigeration units. This reduces incentive to carry chilled chicken
- Due to lack of demand, existing industrial processing plants (except VH ones for OMC) are not able to produce at full capacity and are therefore not profitable

Illustrative GMED Interventions to Address Challenges

Develop different activities to promote forward integration into retail of chilled fresh chicken:

- Identify and promote creative ways of promoting urban retail sales of fresh/chilled chicken
- Assistance to integrators in developing cost/benefit analysis of developing retail operations (understanding that this might not be feasible for all and that some would face issues of competing with their current buyers)
- Investigate how to get certification of processed chicken to promote consumer confidence
- Identify low cost hygienic processing technologies and present these to integrators
- Assist provision stores to develop cold storage capacity for chilled/dressed chicken. This could take the form of feasibility analysis, linkages with financial institutions, assistance with promotional techniques, etc.

4.4 Promoting Public Awareness

Value Chain Constraint

Lack of public awareness on the value of hygienically processed chilled chicken results in relatively low consumption among urban consumers

Solution: Promote public awareness of the nutritional value and convenience of hygienically processed chilled dressed chicken

Provider of Solution

Coalition of integrated producers

Challenges Integrators Face in Providing Solution:

- Lack of existing coalition to work on this
- Lack of agreement on common message and cost sharing

Illustrative GMED Interventions to Address Challenges

Work with coalition to organize awareness campaign on value and convenience of hygienically processed chilled chicken (need to address challenge of getting big players to collaborate). The assessment team has already gained the tentative commitment from top managers of two of the industry leaders (VH Group and Suguna) to participate in this initiative.

4.5 Promotion of Rational Price Determination

Constraint

Lack of information on the projected availability of broilers for sale results in unhealthy price competitiveness and low prices

Solution

Access to information on projected availability of broilers for sale

Provider

Coalition of Integrated Producers

Challenges to Provision and Use of Solution

- Lack of existing coalition of integrators to carry out this function
- Lack of mechanism to collect information

Illustrative GMED Interventions to Address Challenges

Support development of a coalition that could collect information on availability of broilers and make that information available on web site (cost share)

4.6 Supply of Maize and Soybean Meal

This issue was also discussed and is important in understanding the broiler sector. Given the complexity, diverse opinions, and even political implications of getting involved however, the design team felt it better to leave this to the private sector and government to sort out.

Constraint: High cost of inputs

- Cost of maize in India (\$120/ton) compared to Brazil (\$70/ton) + exchange rate makes it difficult to compete in the export markets
- Reluctance of government to allow imports of maize (at levies that would create parity with local market prices) contributes to unstable / higher local prices

- Fluctuations in the price of maize results in difficulties to predict/control production costs

One gets different opinions here depending on who one talks to. Some of the feed providers make the case that there is adequate production of maize and soybeans in India for the poultry industry - and that it is traders who sometimes hold large quantities of maize in storage and create artificial shortages. Others would like for the government to relax its levies on the import of maize (currently at 15%) and make them such that the import price be at a par with the domestic price (an ad hoc committee of private sector actors, with support from the US Grains Council, recently put together a report for the government to promote awareness of this issue). They feel this would provide more options to producers, help reduce the threat of shortages, and stabilize prices in the market. Some feel, however, that relaxing levies on maize imports could become a political issue in regions where there are high numbers of producers.

The team learned that some large integrated broiler producers have begun to engage in contract growing of maize in their areas as a means of ensuring a reliable and cost effective supply.

4.7 General Recommendations and Acknowledgements

[part of full report]

APPENDICES*

1. Scope of Work
2. List of Persons Interviewed
3. Focus Group Participants
4. List of Input Supply Companies

* Part of full report