

Pioneering Micro-Entrepreneurship Through Poultry Breeding And Distribution in Rural India

Innovations Case Narrative:
Keggfarms

Forty-one years ago I left a comfortable career in management to establish Keggfarms. From the outset the idea was much as it is today: to create income-generating opportunities and at the same time make protein more available in rural areas by developing, producing, and marketing a “rural-specific” poultry stock. In our first two decades, our work at Keggfarms earned us a position of leadership and respect within the community of poultry producers and with the government. During that period the overriding economic objective of the Indian government was to make the country self-reliant and self-sufficient in all areas of economic activity—in effect rendering India a closed market in terms of global trade.

Then suddenly, one fine morning in 1991, these economic objectives, diligently pursued since 1947, were discarded, and the economic policy goals were shifted from self-sufficiency and self-reliance to integration with the global economy. This opened the doors for international players to participate in the Indian market. Every company and enterprise in India went into a tailspin. The rules of the game had radically changed overnight and the planks on which all the existing enterprises had assiduously built their business strategies were suddenly removed from beneath their feet.

Keggfarms was one such enterprise. To remain a relevant business entity in a radically altered economic scenario, we had to respond appropriately. The challenge was not only to survive but also to grow and retain a leadership position. It was equally important to be able to keep contributing meaningfully to the development process relating to rural India—where most Indians live and work, and where economically inclusive development is imperative. The government’s change in policy presented us with a “do or die” challenge. We responded. We

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developed a micro-entrepreneurship model in which poor rural villagers significantly increase their cash income by raising specially bred chickens—and we successfully reinvented Keggfarms into a unique and sustainable social enterprise.

BECOMING AN ENTREPRENEUR

I was born in 1934 in Lahore, which later became part of Pakistan following the partition of India. My father was a government engineer. After Pakistan was formed, my parents and my three brothers and I moved to Simla in the north of India. My father was very nationalistic, with strong family, cultural, and religious values. He instilled in me a pride in being Indian, as well as a desire to prove, as an Indian, that our country could be independent and accomplish great things on its own. I was also seriously bothered by the gross inequities in Indian society, and although I did not have the view that everything could be equal, I believed in reducing inequities.

At college I became the head of the communist-influenced Students Union, which was a great embarrassment to my father, who sent me to the UK to an engineering college to abort my political involvement. However, I remained committed to communist ideology during my earlier years in the UK. When Stalinism was exposed for what it was, I was greatly disillusioned and moved away from communism as a political ideology, but my concern for those at the bottom of the ladder stayed with me.

My first real job was at the Western Indian Match Company (WIMCO). I did well at WIMCO, and by age 30, I was already the head of a very large match factory. In WIMCO I had many experiences trying out various management innovations and confronting old-fashioned labor and union practices. In one crisis, I settled a strike that had gone on for 365 hours by cutting a deal that would benefit both sides: the workers would recover their lost wages and the factory would not lose income. The government of the State of Uttar Pradesh even intervened and passed a special law to allow the deal to be ratified.

I had started dreaming about establishing a poultry breeding farm ever since I had a chance conversation with my father in 1963. The facts that poultry breeding was then an up-and-coming activity in India and was related to social concerns were major motivational factors. In 1967, I established Keggfarms with a loan of Rs70,000 from my wife, who came from an established family, although I kept my WIMCO job for several years. In 1973, I left WIMCO to create India's first genetic poultry breeding farm, using the germ plasm (pure breeding stock) that I had purchased from Parks Poultry Farm in the United States. Our successful experience at genetically breeding poultry in India eventually led the still-protectionist Indian government to mandate that all poultry breeding stocks be bred in India.

THE KUROIILER™: AN OPPORTUNITY IS HATCHED

In 1991, when India dramatically opened its protected economy to foreign competition, Keggfarms, which I had founded in 1967, was already one of the leading poultry breeders in India's relatively small poultry market. As CEO, founder, and owner of Keggfarms along with family members, I realized that Keggfarms had several choices: we could join forces with one of the large international players and thereby lose our identity; we could compete directly, which I considered foolhardy; or we could identify a related opportunity that the large players could not address. I also realized that the large poultry breeders and producers, with their environmentally insulated and controlled production facilities, ultra-sensitive poultry stocks, and technology-intensive husbandry requirements, would be able to serve the urban markets, which were huge in absolute terms, but they could not serve the 75 percent of Indians who lived in semi-rural or rural India. This was crucial to me personally, because the key to economic development in India is to help the huge numbers of poor, rural Indians.

For years, the per capita consumption of poultry meat and eggs had been on the rise, in absolute terms and relative to other comparable foods, for several reasons. First, as industrial-scale production increased efficiency, the price of eggs and chickens rose less than those of other products like mutton, beef, and pork. Second, the mass production of these products, their ready availability in large, urban markets, and decreasing vegetarianism encouraged poultry consumption, particularly in urban areas. Despite these facts, in rural India there was no comparable rise in either the production of poultry products or the consumption of poultry meat or eggs. Poultry production in villages remained stagnant, as it depended entirely upon nondescript, low-yielding poultry stocks reared in the villages. On the other hand, rural consumption of industrial poultry products remained low because transportation costs rendered poultry products far more expensive than in the urban areas.

Therefore, we saw an opportunity. Over 70 percent of India's population—nearly 150 million rural households—represented a potential poultry consumption market that could not be efficiently addressed by the industrial poultry production and distribution network.

In fact, I saw an opportunity with the poorest of these villagers, the more than 20 million households¹ that traditionally raise backyard chickens for eggs and meat. These villagers live in such remote places that they cannot travel to the urban centers to shop, nor can they afford any purchases even if they could get there, since over 200 million of these villagers live below the poverty line (BPL), making Rs20,000 (\$480) or less annually per household.² (A rupee is worth about 2.4 cents.) Conversely, the large urban-oriented industrial producers do not have the distribution wherewithal or the financial incentive to bring their products to these rural villagers, given the poor or nonexistent road access, and the villagers' lack of refrigerators and purchasing power. Rural villages typically consist of 100 to 200 households.³ In order to survive, the households grow much of their own food,

Category	Annual Consumption
Per capita availability of chicken meat	1.6 kg
Per capita availability of eggs (number of eggs)	42
Average egg consumption in major cities (number of eggs)	170
Average egg consumption in smaller cities	40
Average egg consumption in developed rural areas	20
Average egg consumption in undeveloped rural areas	5
Vegetarians	20%

Table 1. Poultry Meat and Egg Consumption in India, 2005

Source: Company documents. The company comments that although these represent official government statistics, they should be taken as approximations.

selling any surplus in local markets; for cash they depend upon limited opportunities to do manual labor. Most rural households also keep a few farm animals in their backyards for personal consumption, such as chickens (for eggs and meat), goats (for milk products and meat), and ducks (for meat and eggs), while the more affluent normally keep cows and buffalos (for milk and work).

Rural poultry-producing households traditionally raise 5 to 15 chickens, which roam the backyards and survive on scavenged seeds, insects, vegetables, and scraps. The birds, uniformly cared for by the women of the household, are exposed to the elements (scorching heat and high humidity in summer, and bitter cold in winter), and sometimes fatal encounters with cats, dogs, eagles, or jackals. The typical rural hen is raised for six months and then lays an average of 35 to 40 eggs in a number of clutches (batches) over the next 12 months; it reaches a maximum weight of 1 kilogram (kg) and is finally slaughtered for meat. The typical rural rooster (male chicken) grows to 1.2 kg in six months, after which it is slaughtered for meat, with two or three being kept for breeding.

One of the most important decisions the rural poultry raiser faces is when to convert the mature birds to meat, because the instant they are dead, they cannot be sold.⁴ The trick is to get as much productivity out of the hens and maximum size from the roosters and then bring them live to market to be sold for meat. Replenishing the stock is also an uncertain proposition, because you never know the sex of the chicks until you have grown them for several weeks. So if you want



Figure 1. The Kuroiler™



Figure 2. Two Kuroilers™ (left and right) and Two Broilers (center).

five hens you need to start with 10 chicks.

I estimate that the traditional consumption of eggs in the rural villages is less than five per year per person, compared to a national average of about 35 per person per year, and the traditional consumption of meat by poor rural villagers is just a few grams per person per year, as compared to a national average of almost 1.6 kg per person. In 2005, the national consumption of eggs in India was increasing at an annual rate of 3 percent to 4 percent and consumption of meat by about 10 percent. (See Table 1 for additional consumption estimates.)

After intensively studying the rural poultry market in the 1990s, I concluded that the only way to significantly penetrate the rural poultry market was to use

modern techniques to breed a dual-purpose (meat and eggs) chicken that was specially adapted to village conditions—physical, geographical, social, and agricultural. I would also need to invent a method to physically distribute the chicks from the hatcheries to the often remote villages. This would require unconventional methods that provided incentives for all of the links in a vast distribution network that could eventually sell “started” poultry chicks (three weeks old) to households dispersed over the entire country, often accessible only by dirt roads or footpaths. Furthermore, the birds were not to be delivered to the villages as baby chicks but only when they attained a weight of about 300 grams, by which time they could fend for themselves in the village environment.

It took me about 10 years of experimental breeding at Keggfarms’ R&D center, along with market testing, to finally develop a chicken uniquely tailored to Indian rural villages, which I named the “Kuroiler™,” an acronym derived from the words “Keggfarms” “curry” and “Broiler.”⁵ (See Figures 1 and 2 for photos.) Our Kuroiler has the following characteristics:

- It is multicolored to provide camouflage and because Indian consumers, particularly rural consumers, believe that white chickens are intrinsically inferior.
- It thrives on household waste, scraps, insects, seeds, vegetation, and pulverized sea shells and therefore does not compete with the villagers for expensive grain or require any special feeding.
- It requires no special animal husbandry methods, protection, medicines, or sheltering that cannot be cheaply provided by using scrap materials readily available in the villages.
- It is big, aggressive, and wily enough to fend for itself in the open backyard environment.
- It is genetically resistant to disease.

Compared to conventional rural chickens, the Kuroiler is meatier and more productive. Hens grow to 2.5 kg within 12 months, begin laying eggs at five to six months, and then lay 150 to 200 eggs during their 12- to 16-month egg-laying period, initially more than 20 eggs a month. The Kuroiler rooster reaches 4 kg in 12 months and a weight of at least 1 kg at around three months, at which weight it can be sold for meat if the owner chooses. Kuroiler meat is far more tasty than both conventional backyard chicken meat and industrial supermarket broiler meat.

As a result, with a capital investment of about Rs30 per three-week-old Kuroiler, the rural villagers can conveniently have high-quality, nutritious food that costs almost nothing to produce; they can either consume it or sell it to their wealthier neighbors or in the ubiquitous local markets.

PRODUCTION AND DISTRIBUTION

We currently develop the genetically selected Kuroiler breeding stock and incubate the eggs in 10 hatcheries (see Figure 3 for the locations). We then distribute the fer-

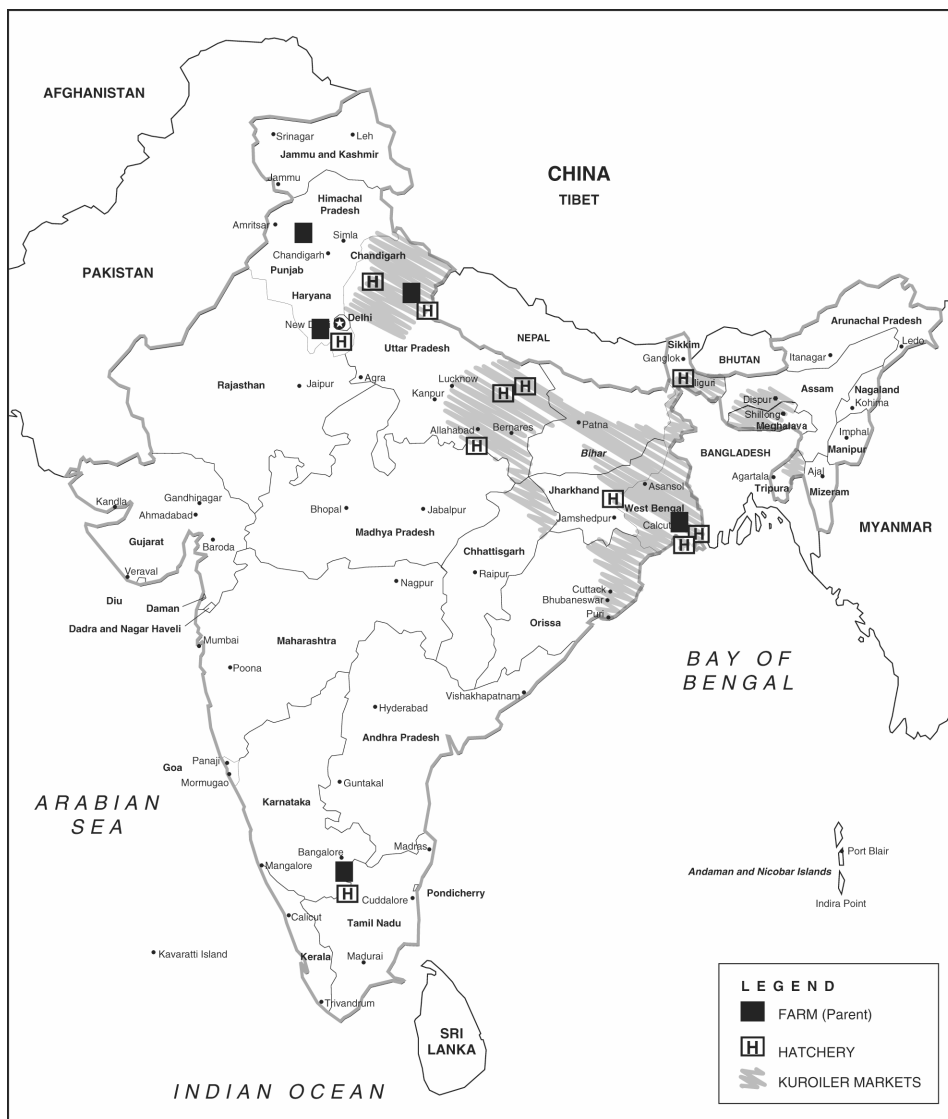


Figure 3. Locations of Keggfarms' hatcheries.

tiled eggs to Keggfarms' hatcheries, where they hatch; within 24 to 36 hours they are delivered to independent dealers, who have bought them in advance. The dealers immediately distribute the young chicks to rural "mother units" (MUs), which grow the chicks for around three weeks, and then in turn sell them to "vendors." The vendors typically load baskets of chicks on their bicycles and hawk them in the villages.

Rural Households

The annual cash income of the average poor rural household in India is less than Rs20,000, and most are considered to be below the poverty line. The little income

they have come from the man or woman earning a wage in agriculture, supplemented by a meager income from domestic livestock and poultry. A Kuroiler household typically has 10 mature birds at any point in time, about half of which are egg-laying hens. To start as a Kuroiler grower, the villager purchases 10 chicks or so at about Rs30 per chick. A Kuroiler egg can be sold to end consumers for Rs2.50 or more, depending on market conditions. A hen starts laying eggs after five months, after which it lays about 20 eggs per month and a total of about 150 eggs in its 12 egg-laying months. Therefore, during its productive period the average hen generates Rs375. If the hen is converted to meat in time, that generates an additional Rs150 to Rs200. Some households bring their own eggs to the market, whereas the most remote ones rely on the Kuroiler dealer who brings the chicks in their own vehicles to the mother units (see below) for distribution to the villages, for a 10 percent to 15 percent margin. So the revenues are about 15 to 20 times the investment, and most of the revenues are profits.

Kuroiler roosters may be slaughtered for the household's own consumption, but most are brought live to market for sale. The market price per kg of a mature Kuroiler is a bit over Rs70, but it fluctuates according to market conditions. In some households, both Kuroiler males and females are sold as meat, and the hens are not specifically retained for egg production. A 4kg rooster, then, generates Rs280 in income and profits in about 12 months, and five roosters generate Rs1400.

I estimate that as of early 2008, over 800,000 rural households are raising Kuroilers. The trick is to get the rural villager to try out the Kuroiler the first time; the reorder rate is very high once the villagers see that they make excellent economic returns. The vendors play a key role in making the economic case for purchasing chicks to start with.

Chick Vendors

Keggfarms-affiliated independent chick vendors typically work in groups of 10, each purchasing a lot of about 100 chicks from the local mother unit (MU) for Rs20 per chick and selling them to the villagers for about Rs30. (See Figure 4 for photo.) It typically takes three days to sell a basket of 100 chicks. Vendors work five days a week, and their primary expenses are the capital outlays for a bicycle and for a special basket to hold the chicks, and some chicks do die. Amortized, the total expenses might average Rs500 per month, so the net profit is about Rs5000 per month, taking into account price erosion in the second or third day of each batch. A single vendor typically covers several villages, and will not compete with other vendors. Vendors are all male, and if married, their wives might bring in a supplemental income of Rs1000 per month from agricultural work. Chick vendors often supplement their income by raising Kuroiler chicks as well as distributing them. Vendors are satisfied with the relatively steady income. We estimate that there were 1,500 vendors as of early 2008.



Figure 4. Vendor.



Figure 5. A mother unit.

Mother Units

We estimate that there were 1,500 MUs for Kuroilers as of early 2008. (See Figure 5 for photo.) MUs are set up in the MU owner's own house in an adjacent room, upstairs, or even under the bed. Every four weeks, MU owners buy 500 to 1000 chicks from a dealer, currently for Rs10 a chick, and start to sell them to the vendors three weeks later for around Rs20 per bird. They must allocate about Rs7 to



Figure 6. Dealer.

Rs8 per chick to mortality, heating, and feed costs, so they generate about Rs3000-Rs4000 per month of profit.

As one example, a particular MU is located about two hours by car from Kolkatta in Eastern India. The MU owner lives in a rural village in a simple concrete-block home to which he has added a second story with the profits from operating the MU, which now occupies the second floor. This house is one of the largest in the village. Many villagers purchase chicks directly from him.

Dealers

Approximately 500 Keggfarms-affiliated independent dealers periodically purchase one-day-old chicks on dates that are arranged in advance with a Keggfarms distribution center, based on orders they place with us, paying cash on delivery. (See Figure 6 for photo.) Quantities range from 2,000 to 5,000 chicks and the unit purchase price is currently around Rs9 per chick, fluctuating according to market conditions. The dealers deliver lots of 500 to 1,000 chicks to each of the MUs in their territories for about Rs10 per chick. The only expenses the dealers incur are for transportation and the occasional granting of credit to the MUs. Mortality is negligible because of the quick turnaround. So in a few hours of work, a dealer makes a few thousand rupees of profit, several times each month.

In the larger territories, where the rural villages are far from even the local markets, the dealers frequently increase their income by also bringing the grown birds and eggs from the rural village households to market to be sold.

R&D Center

We have an R&D center located in the headquarters compound in Gurgaon, in Northern India, which was traditionally the poultry breeding capital of India. Keggfarms started the search for the ideal “rural village chicken” with a concept of what traits the chicken should possess, such as disease resistance, color, size, and egg-laying productivity. Using knowledge gained over years of poultry breeding, as well as published information about different genetic chicken lines (Rhode Island Red, White Leghorn, Cornish, Barred, etc.), we began to cross-breed from four different genetic lines to yield the experimental first generation of Kuroilers. It took many iterations and several years of informed trial and error by our geneticists and breeding specialists to arrive at the current genetic model of the Kuroiler.

In reality, we tried to sell each successive generation of chickens right from the start in order to get feedback from the market. Sometimes we got lucky. For example, very early on we were selling the first generation of brown male chicks and some discarded brown female chicks. These were being picked up from our hatchery at almost three times the price of our white male chicks. We investigated and found that the purchasers were raising these small quantities of chicks, and then selling them to villagers at a substantial premium. From this we confirmed the imperative preference for a colored dual-purpose bird in the villages.

Chick Production

The genetically selected males and females (those chickens that represented the ideal genetic makeup) are bred in one of 10 centers (see Figure 1 for a map of Keggfarms facilities), with most breeding located in Keggfarms’ largest facility, in the more moderate climate of South India. The breeders produce fertile hatching eggs. These hatching eggs are then shipped to the 10 Keggfarms hatcheries in locations closer to the end markets, in order to produce Kuroiler chicks. When the eggs hatch, the chicks are immediately shipped to distribution centers to fill the orders placed by the dealers.⁶

At present, Keggfarms’ direct costs for each chick are a little over Rs7, taking into account the cost of producing the egg, freight, hatching, packing, etc. At present our costs are fairly inflexible, and there is an upper limit to what we can get, but selling prices can fluctuate (downward) dramatically, and this is a serious threat to us. Between 2001 and 2007, prices fluctuated from a current high of over Rs9 to a low of Rs4.25 in 2006, when the Avian Flu scare hit India. At other times, gluts in the urban market have led poultry producers to dump their stock in the rural markets, causing prices to crash. Since inventory is perishable, we are sometimes forced to reduce our prices, even to below cost. This uncertainty has made me very cautious financially and strategically, as we have weathered several crises in our history and I will do everything I can to avoid repeating the experience.

The Imitation Problem

Imitation is, they say, the ultimate form of flattery. It is in a sense also gratifying that our brand name Kuroiler has now acquired a kind of generic usage for village poultry stock. However, as a company we are also confronted with a serious commercial problem. At present, there is no way to distinguish real Kuroilers from the other poor-quality colored chicks that imitators produce. We do send notices to operators who use the term Kuroiler on boxes or invoices, but this does not get at the main issue. The bigger problem is that dealers, MUs, and vendors deliberately mix the stock. An imitation chick costs at least one rupee less than a Kuroiler to produce. MUs will pay a higher price to the dealer if the chick is supposed to be a Kuroiler. Vendors likewise will pay a higher price to the MU if chicks are claimed to be Kuroilers, and there is also a premium for Kuroilers at the village household level. So it pays to mix and misrepresent. We do not as yet have any way to ensure identification of genuine Kuroilers.

NEW OPPORTUNITIES

In developing the Kuroiler that was adapted for the special circumstances of India's rural villagers, we developed two related product lines which are targeted to very different markets, primarily to generate profits for Keggfarms, without such a clear social agenda. I mention them here to raise the issue of how a socially minded business person can simultaneously pursue a primarily for-profit enterprise, to improve the company's financial performance, along with a mixed for-profit social enterprise.

KEGGS™

The first parallel product we developed we call the KEGG™. It is widely accepted that eggs from barnyard hens are tastier than industrial eggs, and city dwellers who like eggs will pay a premium for them. They are colorful and have bright yellow yolks because the hens eat green vegetation in the backyard. But in India, rural backyard eggs, produced in small quantities by rural villagers, cannot make it to the urban markets—it is too far away, and too expensive, and the supply is very small and dispersed. So eggs in the large urban centers are white and bland, and competition is over price alone—eggs are an undifferentiated commodity. And the consumer is largely uninformed: eggs may be stale, have dirt on them, be kept in the hot sun during distribution, or even come from flocks that are diseased or have been given antibiotics.

By 2002 we had developed an exceptionally tasty egg that had a bright yellow yolk, had no contaminants or antibiotics, and would reach retail stores in no more than 48 hours, having been kept in refrigerated storage. The eggs would reach the retail stores in such quantities that consumers could buy them within three to four days of production, so they would arrive fresh in the consumer's refrigerator. The challenge included making the color of this egg be a distinct shade of brown (tan) so that it could be readily identified as a Keggfarms product. Finally, the packaging

had to make the eggs visible to the consumers so they could be certain what they were buying. We would then build the market and charge a premium for the unique eggs.

So far I have been very satisfied with the initial commercial results, following three years of un-aggressive market testing in New Delhi. We fix the end-user price at Rs30 for a carton of six eggs. This is *double* the price for regular eggs, whose retail prices fluctuate, whereas KEGGS prices do not. We are initially only selling to higher-end retailers in Southern Delhi and neighboring Gurgaon, which are among the wealthiest areas in India. We sell a six-egg carton to the store for Rs25.75, and our direct production costs are around Rs18. So our margins are good, significantly better than for the Kuroiler, and we offer no credit so we need little working capital. Using only two three-wheelers with the Keggfarms sign on them, each day we currently deliver almost 2,500 cartons to about 120 major retailers; consumers flock to the stores, and the demand exceeds the supply. Within a year we hoped to be selling over 5,000 cartons per working day. We believe that within three years we will be supplying over 22 million eggs a year.

Interestingly, we are also facing the imitation problem with KEGGS™. Other small suppliers are trying to sell eggs in copycat boxes—using the same font and a slightly different name. Some small egg distributors even go to the trouble of dipping eggs in tea to give them the distinct tanned color of KEGGS. In principle, I could get court injunctions against these imitators, as we have trademarked everything. But how enforceable would an injunction be? And how costly? Right now I believe that the only truly effective way is to beat our imitators in the marketplace.

Kuroiler FFG™

As our Kuroiler business gradually grew, I began to pay attention to the fact that a number of village farmers are actually growing chickens for meat, with 500 to 1,000 chickens per farm. These small-scale professional farmers are more quality conscious and actually purchase feed for their stock. Although they live in or near the villages, they are relatively prosperous, with annual incomes of Rs50,000 and above.

As a result, based on the Kuroiler stock, we developed a meat chicken that simply grew faster, thus decreasing time to market and time to revenues for the farmers. These chickens reach a saleable weight of one kg in six weeks instead of eight weeks, which represents a significant improvement in time scale and many more cycles of meat. They also require less feed per kg of weight attained. And they sell at a much higher premium over normal broilers. It is a win-win situation for the small farmers and we are finding a huge demand for this product. We call this product Kuroiler FFG™—for faster growth. As with KEGGS, in the market we can extract a premium price for the Kuroiler FFG chicks, currently selling them at Rs10.50 or slightly more, so the gross margin is approximately twice that of the Kuroiler. In 2006-2007 we sold five million Kuroiler FFGs, and in 2008-2009 we expect to sell nine million.

CONCLUSION

I have feelings of great satisfaction and also concern as I reflect on Keggfarms and in particular the Kuroilers™. Certainly, we have come a long way and have made a positive impact on close to a million households. We have also already created close to 3,000 micro-entrepreneurs in the dealers, mother units, vendors, and small farmers. The challenges, however, are significant. Can we continue to maintain our primary focus on the inherently less profitable and more demanding of our three product lines? As long as I am at the helm of Keggfarms we will. But I am in my 70s. and I know that the passion I have for social causes is my individual mission and not something readily transferable. Not even to my obvious successor—my son Rahul, who has built and runs a successful enterprise, Avitech. Therefore my prime priority and challenge is to strengthen Keggfarms so that it can continue to play a leading role for the benefit of the rural poor beyond my personal involvement.

My strategy has three parts.

First, I aim to make producing and selling Kuroilers® as profitable as possible given the constraints of its market. This is happening. We have developed a new genetic model for Kuroilers® that gives us a much higher rate of hatchability (number of viable chicks produced per 100 hatching eggs) and thus proportionately reduces our production costs and increases our profits. And this product grows faster than regular Kuroilers™. Labelled Kuroiler™ NFG, this is already in the market and having good market response. By autumn 2008 these chicks will completely replace the older model Kuroilers™.

No less important a component of the strategy is to relocate our egg-hatching production centers (farms) closer to the markets that we are servicing. Transporting hatching eggs from South India over long distances to Kolkata, Varanasi, and Ranchi and from Gurgaon and Ludhiana to Gorakhpur involves huge and increasing transportation costs, and lowers the rate of hatchability. We have already started production of hatching eggs at Gorakhpur, which is closer to our rural markets, and we plan to progressively produce most of the eggs required for our markets in Eastern India in that area itself.

Quite separately, I need to emphasize growth in those activities that yield better financial margins, specifically FFGs, and KEGGS, while concurrently ensuring a targeted growth of about 10 percent per annum for the Kuroilers™ destined for BPL village poultry production. This will help bring greater financial stability to Keggfarms' operations and enable it to better cope with the fluctuations inherent in the poultry markets. To enable this focus, to manage cash flow we will need to keep Keggfarms' own village-related operations confined to existing market areas and adjoining territories, and seek partnerships to open up non-contiguous and virgin markets. I have to accept that limitations in Keggfarms' own resources create a critical constraint for scaling up this activity, however viable and fully validated it may be.

I cannot also overlook the fact that Keggfarms is essentially a commercial

organization, which needs not only to sustain itself financially but also to grow on the strength of its operations and profits. People who work for Keggfarms are key to its success, so we have to pay them competitively; we must provide them a growth-oriented environment so they will be enthusiastic and give their best. For them the recognition that the company receives for its contribution to the social sector can only be the icing, but not a substitute, for the cake.

Finally but no less importantly I need to identify and induct into Keggfarms a CEO who shares my value system and enthusiasm for serving socially relevant purposes through a sustainable business venture.

I believe if I can move the company in these directions, I will have largely succeeded in setting the stage for my successor to carry ahead the model of a corporation that seeks to create a balance between profits and social responsibility.

And yet even as I take these pragmatic measures, my mind continues to conjure visions of exciting and innovative possibilities. Who knows? God willing, some years down the line, I may have a few more paragraphs to add to this note about my journey so far.

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1. Assuming that each household has 6 members, there are close to 200 million households in India.
 2. The poverty line is defined differently but many definitions place it between \$300 and \$365 per year (between about R 13,000 and R 16,000). See <http://siteresources.worldbank.org>, accessed December 8, 2006. In 2005, 80% of the population earned \$2 per day or less. The Indian government defines poverty quite differently, as having under R10 per day. See Statistical Outline of India 2005-2006, Tata Service Ltd., Bombay, India.
 3. Of the approximately 200 million households, approximately 180 million urban or rural households had enough income to purchase eggs and meat. The remaining 20 million households were those targeted by Keggfarms and were referred to as “rural village households.” This segment included many Moslems for whom vegetarianism is not religiously mandated.
 4. Butchers in India carried live chickens which were individually selected by customers to either take home live, or slaughtered and “dressed” by the butcher.
 5. “Broiler” is the term used for a chicken raised primarily for meat. An egg-producing chicken is a “layer.” According to Wikipedia, <http://en.wikipedia.org/wiki/Broiler>, accessed December 8, 2006, the broiler “is bred in a highly controlled environment along with thousands of other broiler chicks. It is given unrestricted access to a special diet of high protein feed delivered via an automated feeding system. This is combined with artificial lighting conditions to stimulate growth.”
 6. One factor in distributing any perishable items in India is the poorly developed roads. As a rule of thumb, in intercity driving one can average 50 kilometers per hour, according to a professional driver.