

Energising Rural India through Contract Farming Integration Model in the Poultry Sector: The case of Suguna Poultry Farms

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“The innovations in contract farming demonstrated by Suguna is a win-win model for the farmer, the company and the country,” says Soundararajan, MD, Suguna Poultry

The Indian poultry industry is believed to be around 5,000 years old. Over the years, the sector has emerged as one of the fastest growing segments of the agricultural sector in India compared to any other agro-allied sectors contributing approximately 4 per cent to the country's Gross Domestic Product (GDP) and 27 per cent to the agricultural GDP (Annexure I).¹ Poultry development has not only grown in size but also in productivity. The production of the poultry business grows at annual varying rates of 8-15 per cent compared to agricultural crop production which grows at a rate of 1.5- 2 per cent per annum. Presently the industry is growing at the phenomenal rate of 12 to 15 per cent every year and the international credit agency, ICRA, has assessed that the growth rate of domestic broiler meat would rise at around 15-18 per cent, while that of eggs is tipped to rise at 5-7 per cent in the coming years.² With rising incomes, growing urbanisation, and population growth in India, it is estimated that the demand for livestock products will double by 2020.³ It is also projected that the Indian poultry industry will emerge as the world's second-largest market.

The industry has undergone a paradigm shift in its structure and operations. Till the 1960s, poultry keeping in India was largely a backyard venture⁴ facing many challenges such as rigid entry barriers, competition, lack of extension, poor marketing network and lack of appropriate technology which discouraged the small-holder poultry farmers to participate in the growth of the sector. Nearly 80 per cent of the farmer population in India consists of small and marginal farmers who faced the above mentioned problems in the poultry rearing business.

Recognising the potential of the poultry rearing business that would significantly contribute to the generation of new employment opportunities and to people's nutritious status and thereby improve the livelihoods of rural India, the Government of India took countless measures such as encouraging commercial broiler production, credit support by commercial, cooperative banks and financial institutions coupled with numerous proposals to implement centrally sponsored schemes to revive the industry with minimal government intervention.

1 “Explore India at IAI (International Animal Industry) Expo 2011”, <http://en.engormix.com/MA-dairy-cattle/news/explore-india-iai-international-t17004/po.htm>, 29th June 2011.

2 “Indian poultry industry needs to ramp up growth: ICRA”, http://www.moneycontrol.com/news/business/indian-poultry-industry-needs-to-rampgrowth-icra_567153.html, Jul 20th 2011

3 <http://sapppp.org/aboutus/aboutsapppp>

4 ‘Backyard’ or ‘small- holder’ or ‘family poultry’ as they are often described is basically keeping poultry in small units of 5 to 15 birds or so.

Consequently, poultry farming witnessed an astonishing augmentation in market size and evolved from being a homestead activity into a commercial industry in just four decades (Annexure II). As of 2011, the domestic poultry market size of India was estimated at more than INR 47,000 crore.⁵

One of the significant aspects behind this phenomenal growth was the vertical integration of broiler farms with rural poultry farmers through contract farming arrangements. Of the broiler farms, one of the noteworthy integrators is Coimbatore-based Suguna Poultry Farm which promoted the innovative method of contract farming and vertical integration across India. "Contract poultry farming was taken up for the first time in India at Udumalpet," said B. Soundararajan, Managing Director, Suguna Poultry Farm Limited.⁶ Western India has followed the southern footsteps.

Pioneered by Suguna way back in 1984, the concept of vertical integration with the small poultry farmers through contract farming was billed to be a veritable instrument in addressing the livelihood issues of thousands of small rural farmers who were really suffering from insufficient investments, lack of access to working capital, technical know-how and poor marketing network, particularly in the rural areas of southern and western India. It is estimated that 90 per cent of the poultry in the southern region, 80 per cent in the western region, 70 per cent in the eastern region and 10 per cent in the northern region are under a vertically integrated system. Eighty per cent of the broiler industry is now under this system in India. Tamil Nadu, Andhra Pradesh, West Bengal, Maharashtra, Karnataka and Punjab are the major broiler producing states in India.

In Tamil Nadu, over 90 per cent of the birds reared today are on contract farms. Hardly 10 per cent of the farmers are involved in poultry rearing independently. Backed by the complete support of farmers, the poultry integrators have been expanding most rapidly in southern India, particularly in the Coimbatore district of Tamil Nadu, which reportedly has a large integration, which accounts for about 75 per cent of poultry production and consumption. The Coimbatore region of Tamil Nadu is thus considered the vanguard of broiler production in the country. It is understood that, through poultry integration, Suguna has contributed significantly to transform the poultry business from backyard activity into a major industry and has helped thousands of small farmers to turn into budding entrepreneurs to grow along with the company. This case study examines how the poultry integration model, introduced and pioneered by Suguna, has energised the livelihoods of rural poultry farmers in the Coimbatore region of Tamil Nadu.

⁵"Indian poultry industry needs to ramp up growth: ICRA", http://www.moneycontrol.com/news/business/indian-poultry-industry-needs-to-rampgrowth/icra_567153.html, Jul 20th 2011

⁶T.S. SUBRAMANIAN, "An economic resurgence", <http://www.hindu.com/fline/fl2305/stories/20060324001808300.htm>

The Contract Farming Integration Model

Started in 1984 with 200 layer birds at Udumalpet, a small town near Coimbatore, Tamil Nadu, Suguna is today one of the largest organised players in India and is believed to rank among the top ten poultry companies worldwide with a steadily increasing global presence. Suguna was initially set up as a poultry farm by two brothers -- B. Soundararajan (Managing Director) and G.B. Soundararajan (Joint Managing Director).

They started their career as traders for egg and poultry feed with an initial investment of Rs 5,000 borrowed from their parents. In spite of having no formal education, the brothers have grown Suguna into the largest player in the market. It is presently the fourth largest in the world. From 200 birds and a few hatcheries in the 1980s, Suguna now has 15,000 farmers under its contract farming model across 11 states in the country. Over the period of 27 years, Suguna has gone from strength to strength and has turned into a Rs 3,720 crore company as of 2011⁷.

The exceptional growth of Suguna Poultry lies in its strategic move of contract farming across India, the genesis of which can be traced way back to the 1990s. During 1989-90, when poultry prices collapsed due to an oversupply of birds in the local market, the brothers saw an opportunity for business growth by helping the poultry farmers who had bought feed and medicines on credit and could not clear their dues. With a view to helping the indebted farmers in recovering their money, Suguna began to provide feed and health support to them in return for the end product i.e eggs/broilers. "Suddenly, we thought why not invest working capital and manage these farms? Farmers also wanted stability. We supplied the inputs and they (farmers) became converters."⁸ This led to the inception of the concept of contract farming. Today the company has expanded exponentially with a network of 15,000 rural farmers as its contract growers. "It was initially tough for us, but we put our faith in the farmers and nurtured them and there was no looking back," said Soundararajan.

Unique aspects of the working model of Suguna

- It's a win-win situation for both the farmers and the company.
- Assured minimum growing charges and incentives for better practices.
- Provides best quality chicks, feed and professional medical care.

⁷http://www.sugunapoultry.com/institutional_sales/institutional_sales.asp

⁸"He Counts His Eggs Before They Hatch", <http://chennaistartup.wordpress.com/>, July 26th 2008

- Provides market linkage for the poultry produced.
- Technical training to the farmers in scientific poultry management practices
- Intensive monitoring of poor performers and on-farm counselling for further improvement
- Provides direct and indirect employment opportunities through its business processes.
- No risk for the farmer like market volatility, raw material fluctuations etc.
- Investment in highly sophisticated technology and infrastructure
- Project guidance and assistance with getting finance

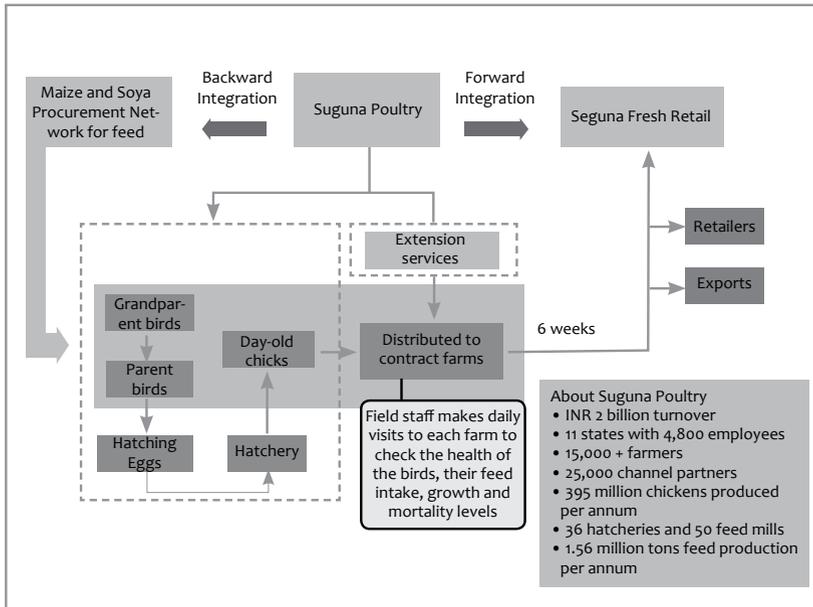
Suguna's business model (Exhibit I) is known as contract broiler farming. Under this model, farmers who own land and have access to resources such as water, electricity and labour can become contract growers for Suguna. Farmers are provided with day-old chicks (DOCs), feed and health support. Apart from providing all technical services, the performance is monitored on a daily basis with Suguna field staff visiting the farms to check on the health of the birds, feed intake, growth and mortality levels. In addition, the integrator brings Good Manufacturing Practice (GMP), and technical know-how which leads to higher productivity. At the end of six weeks time (42 days), the birds are weighed and are ready to be sold by Suguna. Farmers are paid a handsome growing charge for the birds at the end of this period in the range of Rs 3.10 - 4.50 per kg, depending on their efficiency in lowering the Feed Conversion Ratio (FCR)⁹.

The broiler farm believes in stiff quality standards. For ensuring the quality, the process of growing the chicks has been standardised and the contract growers must conform to stipulated norms laid down by Suguna. Quality control checks are carried out by company staff to ensure the norms are being met. It is estimated that, on an average, a typical farmer franchisee with a minimum flock size of 5,000 birds can earn around INR 15,000 monthly for breeding broiler chickens on their farm. The poultry integration model intends to provide a win-win situation to both the farmers and the integrator.

The company has faced many challenges over the years. During the 1990s, the company passed through a critical situation with an irregular supply of day-old-chicks (DOCs) for its parent farm. "It was a major problem for us. Without chicks, our growth would end. So, we decided to set up a hatchery to supply DOCs to our network of contract farmers. This taught

⁹ FCR a measure of an animal's efficiency in converting feed mass into increased body mass. Animals that have a low FCR are considered efficient users of feed.

Figure 1: Suguna's Working Model



Source: Company website

us an important lesson -- we had to integrate backward if we had to grow and make it big in the business, say the Soundararajan brothers." In order to strengthen its backward integration system, Suguna established a grandparent farm in the year 2000 and tied up with Ross Breeders of UK. The farm has 132 grandparent and parent farms. It operates 35 hatcheries with an aggregate capacity of 350 million eggs per annum. Suguna opened its first state-of-the-art hatchery in Sadayapalayam, Tamil Nadu and has expanded hatchery operations across the country.

Since poultry feed is the major input in poultry production and accounts for 70 - 80 per cent of the total production cost, Suguna has invested heavily in setting up feed mills. It currently operates 38 feed mills across the country. Another four additional mills, two in Andhra Pradesh and one each in Karnataka and Maharashtra are in the pipeline. The feed mill in Bangalore will be Asia's largest feed mill with a capacity of 80-tonne-per-hour at an investment of Rs 5,500 lakh. This modern feed mill is expected to benefit about 2,000 farmers in Karnataka while providing direct employment to over 800 people and indirect employment to another 2,000. The company has also entered the global poultry market through a partnership with Supreme Foods Co. Ltd in the Middle East and forayed into the Japanese market as well. The company is already a supplier of poultry to brands like McDonald's and KFC.

It was a tough task for Suguna to get financial assistance from banks during its initial period. However, over the years, given the company's

track record, many banks started coming forward to support Suguna's expansion plans. More than 10 banks are already connected with the farm. Besides, Suguna is the first Indian agri business funded by International Finance Corporation (IFC), the private sector arm of the World Bank.¹⁰ An investment of Rs 110 crore has been made by IFC towards the expansion and development plans of Suguna. The integrator has invested in the latest technology to improve its efficiency. It has signed a deal with IBM to incorporate the Oracle E-Business Suite in its business operations with an investment of Rs 8 crore.¹¹ The company also plans to sell its ready-to-cook and ready-to-eat products and branded eggs through other retail chains as well.

Suguna's backward integration has not stopped only with broiler production. It has set up a network to directly procure maize and soya, key poultry feeds, from farmers through the contract farming model which is expected to keep the feed costs low. A constant and relentless drive for growth and expansion now engages over 15,000 farmers from 8,000 villages in 11 Indian states, 4,800 employees, 25,000 channel partners with around 500,000 people benefiting from indirect employment. Through its wide network, it has created opportunities for small traders and low-skilled employees to take part in the growth momentum of Suguna.

Relevance of Contract farming in Tamil Nadu

The broiler industry is well represented in the southern states with nearly 45 per cent of total domestic poultry output led by states such as Andhra Pradesh and Tamil Nadu, followed by other southern states.¹² The layer industry is more represented in these states especially Andhra Pradesh, Tamil Nadu and Maharashtra as 70 per cent of egg production is from these states.¹³ The Namakkal region of Tamil Nadu is known as the country's egg hub, while the Coimbatore region leads in processed chicken meat. Nearly 95 per cent of the chicken meat exports from the country is from this region. The Tamil Nadu poultry industry contributes 16.5 per cent of country's total poultry export. The state contributes 15.83 per cent of total egg production and stands second in egg production in the country.

Agriculture is the most predominant sector of the economy in Tamil Nadu. Seventy per cent of the state's population is engaged in agriculture and allied activities for their livelihood. Besides agriculture, poultry farming plays a predominant role in the rural development of the

¹⁰ "Suguna readying to tap retail revolution", <http://www.financialexpress.com/news/Suguna-readying-to-tap-retail-revolution/197396/2>, April 23rd 2007

¹¹ "Suguna Poultry Chooses IBM to implement Oracle Applications", http://www.oracle.com/global/in/pressroom/051114_India_Suguna_IBM_Oracle%20announcement_pre-final.html

¹² "Indian poultry industry needs to ramp up growth: ICRA", http://www.moneycontrol.com/news/business/indian-poultry-industry-needs-to-rampgrowth-icra_567153.html, Jul 20th 2011

¹³ "Indian poultry industry needs to ramp up growth: ICRA", http://www.moneycontrol.com/news/business/indian-poultry-industry-needs-to-rampgrowth-icra_567153.html, Jul 20th 2011

state as it helps the rural population earn a regular income. Due to the uncertainties in the sources of agricultural income caused by insufficient and untimely rainfalls, frequent monsoon failures and continual floods during the monsoon in the delta districts of Tamil Nadu, the poultry rearing business is regarded as a good source of supplementary revenue by many of the rural farmers. With easy availability of inputs required for poultry farming, simple equipments for feeding, watering and sheltering for small units, less land requirement, poultry farming was considered as a viable business for small holders till 1990s. However during 1989-90, the poultry prices crashed due to the over-supply of birds in the local market. Many of the rural farmers engaged in poultry rearing suffered huge losses during the crisis and faced a severe working capital crisis, ultimately quitting poultry operations. The poultry industry in the state was moving towards a state of depression.

In this crisis situation, the contract farming arrangements by the poultry integrators were regarded as a significant source of livelihood for thousands of small rural farmers in Tamil Nadu. Through this contractual relationship, the farmers were provided with quality inputs such as day-old chicks, required feed, health and veterinary services along with the technical guidance, management skills, credit facilities and marketing facilities for disposal of live broilers in the market. In turn, the farmers were remunerated a handsome growing charge for the birds at the end of this period. The vertical integration led the farmers to be absolutely free from the market volatility and raw material fluctuations etc. Contract farming was also considered as a stimulating way of empowering the rural small farmers, transferring corporate management skills to the agro-allied sectors, providing assured markets for the poultry produce, reducing the operating and transaction costs involved in the value chains of the poultry production. Poultry rearing, which had been a cottage industry all along, has now become a big industry by itself in many places in the districts of Namakkal, Salem, Erode and Coimbatore.

Impact Analysis

With a view to evaluate the livelihood impact of the Contract Farming Integration Model pioneered by Suguna Poultry Farm at the village level, a study was conducted in the Coimbatore region of Tamil Nadu. In Tamil Nadu, around 2,000 rural farmers are under vertical integration by Suguna. In the Coimbatore region alone, 250 farmers are under contract with Suguna. For the purpose of the study, 25 farmers under vertical integration by Suguna were selected randomly (Exhibit II). Twelve of these farmers had an average farm size of 3,500-5,000 birds and the remaining was with the average flock size of 5,000-10,000 and above. The primary data was collected from the farmers using a semi-structured questionnaire and focus group discussions. Besides, secondary data was collected from the company websites and other research reports available on the Internet.

Table 1: Total Sample Size

Total farms under contract farming by Suguna in Coimbatore Region, Tamilnadu	Average Farm Size (No. of birds/cycle)	Sample farms selected for study	Small Farms with an average size of 3,500-5,000 birds	Medium and large-scale farms with an average size of 5,000-10,000 and above
250	7,500	25	12	13

Reaching a Large Number of Small Farmers

In earlier days, poultry keeping in India was largely a backyard venture where households kept an average flock size of eight to 10 birds. Though there existed a certain degree of success in reaching out to poor and impoverished communities through the backyard poultry model¹⁴, the scavenging-based desi birds, mainly for household consumption, made a minor contribution to rural livelihoods as the net income per bird per month was very meagre, ranging from Rs 4 to Rs 13 per bird per month. Another bigger hurdle often confronted the backyard model -- a very high chick mortality rate due to inadequate medical care. However, with the introduction of contract farming in Tamil Nadu, broiler farms with a flock size of less than a 1,000 birds became a rare sight. Broiler farms with an average of 3,500-5,000 birds are categorised as small broiler farms as they achieve economies of scale, thereby generating adequate income to sustain a family.

Lack of technical skills, adequate working capital, and the inability to bear the risks associated with perishable commodities like poultry, greater price fluctuations, lack of access to market information compelled the small farmers to opt for contract farming. With lower opportunity cost of labour and lower investment, small farmers see the contract growing as a lucrative offer. Since the entire family is involved in the activity, small farmers are highly motivated and require less supervision with better husbandry management practices whereas the hired labour require more supervision and wage rate is also higher comparatively (Rs 120-150 is paid per day per hired labour in the region). Small farms are able to grow a mix of crops and livestock, thereby increase their income. In a comparative study on Institutional Innovations and Models for Agribusiness and Agro-Industry in India, it was observed that Suguna had been ranked strong in reaching large number of small farmers with adoption of the latest technology and scientific management practices (*Annexure III*).

¹⁴ 'Backyard' or 'small-holder' or 'family poultry' as they are often described is basically keeping poultry in small units of 5 to 15 birds or so.

From Independent Farming to Contract Farming

Most of the contract growers of Suguna were engaged in the poultry business independently before the joining the integrator. The major causes for the entry of independent farmers into contract farming in the region are lack of working capital, risk reduction, additional income, and lack of marketing and technical knowledge. "There is no risk for us as we do not own the chicks. We also don't have to worry about the prices of feed stock, the logistics of arranging for veterinary guidance and the selling price of chicken. Suguna takes care of all that. We just need to ensure that the birds are well looked after as they grow,"¹⁵ says one of the contract farmers engaged by Suguna since 1994.

Lack of capital was the most frequently cited reason for entering the contract system. Farmers require initial capital to establish a poultry farm and they also need cash to meet day-to-day expenses. Feed constitutes almost 70 per cent of the total input cost of the poultry rearing. By acting as a resource providing agency, the major component of the working capital is borne by the integrator. In contract farming, the contractor provides feed, DOCs, veterinary care and technical and marketing assistance which represents over 90 per cent of the total cost of production. Farmers have to incur only 10 per cent of the costs in farming poultry. Through contract farming, the farmers are able to get financial assistance without paying interest to run the business smoothly.

Repeatedly stung by a volatile market, independent farmers sometimes have to sell even below the production costs. However with the assurance of guaranteed returns, supply of required inputs and regular market linkages for the poultry produced, the farmers see contract farming as a good security cover for their poultry produced. Undisclosed quality of inputs, penalty for the discrepancies in poultry output, etc. are perceived as a lacunae in contract poultry farming. But still the poultry farmers are much more interested in contract farming, primarily because of numerous advantages they enjoy by integrating with the broiler farmers through the contract farming model.

Supplementary Income for the Agri-farmers

Engaging in contract farming for poultry rearing provides a supplementary income for the farmers who are already involved in agriculture. In Tamil Nadu, most of the agricultural farmers are engaged in coconut growing. However, with uncertainties in the sources of agricultural income and diminishing returns from crop-based agriculture caused by the insufficient and untimely rainfalls, frequent monsoon failures and continual floods during monsoon in delta districts of Tamil Nadu, many of the rural farmers prefer to engage in the poultry rearing business besides agriculture. With easy availability of inputs required for

¹⁵ Madhavan N., "Radically different", <http://businessday.intoday.in/story/radically-different/1/2513.html>,

poultry farming, simple equipment for feeding, watering and sheltering for small units and less land requirement, poultry farming is considered a viable business for small holders.

Housing an average flock size of 3,500 - 5,000 birds is estimated to fetch around Rs 15,000- 25,000 per cycle of 42 days which would generate an annual income of Rs 80,000-1,50,000 with an investment of Rs 2,00,000-3,00,000 for shed construction and other expenses. Hence, poultry farming plays a predominant role in the rural development of the state as it helps the rural population earn an income regularly like a salaried person.

Employment Opportunities for Unemployed Youth and Household Women

In most of the cases, unemployed educated youth and women from the rural areas of the region welcomed contract farming primarily because of the assured returns, which could not be expected in conventional poultry rearing. Subramani (25), a graduate who has been in poultry rearing for the past seven years said: "Contract farming has helped me to generate adequate income for my family livelihood. It also helped me to settle my loan amount of Rs 5,00,000 taken from the cooperative society for the shed construction". He is earning around Rs 20,000-25,000 per cycle with a flock size of 5,000 birds at a growing charge of Rs 3.10 per kg. Initially, he had been with a local poultry integrator who had taken much time (40 days) to replace the chicks each time. Dissatisfied with the time taken for replacement, he shifted to Suguna where the integrator works on a time cycle of only 15-20 days for the chick placement. He is also happy with the assured and guaranteed minimum returns received from the integrator. Suguna makes the payment to the farmers at the end of 10 days of each cycle period.

Ananthi (38), a housewife, has been assisting her husband in the contract poultry rearing business for the past four years. From the beginning they have been under contract with Suguna. With a flock size of 5,600 birds, they earn around Rs 25,000-30,000 per cycle at a growing charge in the range of Rs 3.10-4.50 per kg. She said that, with the handsome growing charge got from the integrator, she had settled three-fourth of the loan amount of Rs 5,00,000 taken from the State Bank of India, besides providing a livelihood to her family of four.

Free from Market Risks

Lack of proper marketing facilities is another reason for entering the contract system. Under the contractual agreement, the farmer is assured of input supplies and platform for disposal of the produce, hence they are absolutely free from market volatility, raw material fluctuations etc.

Scientific Poultry Management Practices

For ensuring the quality, the process of growing the chicks has been standardised and must conform to exacting standards laid down by Suguna. Quality control checks are carried out by company staff to ensure the norms are being met.

Efficient Supply Chain Management and Reduced Price

Suguna has successfully reduced middlemen in the poultry chain from 14 to 4. Farmers deal only with the company, and get assured returns. “Until then the middlemen took away around 10 per cent as commission. As a result, costs increased by 25 per cent,” said Soundararajan. With reduced number of middle men and streamlined marketing channels, Suguna is able to maximise efficiency, lower the production and transaction costs. Regardless of the market price, the farmers still get the assured growing charge/ cost, and incentives mainly because of its streamlined market channels. The resultant fall in real prices of the poultry meat made it affordable across different consumer segments.

Project Guidance and Assistance in Getting Finance

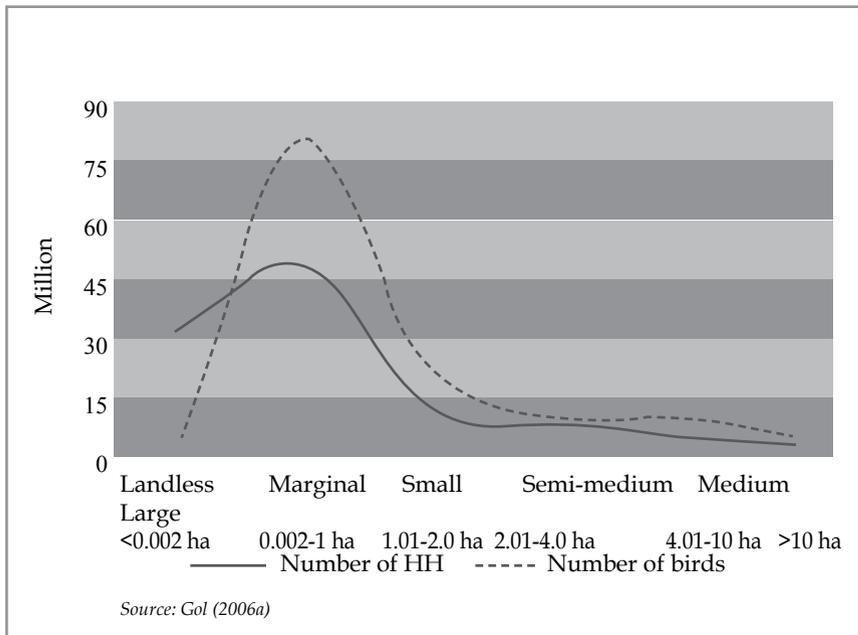
Besides, the poultry farm has signed a MoU with many leading banks such as SBI etc, and recommends its contract farmers to avail hassle-free financial assistance from these banks. In some areas, farmers approach Suguna with only land and the integrator helps them to put up a poultry farm, and then places chicks and trains the farmers to manage the birds.

Seeing the impact of Suguna’s initiatives in rural development, the chief ministers of other states such as Andhra Pradesh, West Bengal, Punjab and Jharkand have approached and invited Suguna to set up operations in their states. The model has also attracted visitors from across borders that are keen to learn from Suguna’s initiatives and success and to adopt the same in their countries.

The Road Ahead

Although the contract farming system has significantly contributed to the income generation of rural small farmers, some of the contractual terms practiced under the model are limiting the participation of poor farmers. According to the 2006 National Sample Survey (NSS) report on Livestock Ownership, the majority portion of the total poultry birds grown in India was by the landless, marginal and small farmers who accounted for about 90 per cent of the 107-million agricultural households in India (Exhibit III). Around 70 per cent of poultry population was “native bird” and accounted for 70 per cent of egg production. Today, over 80 per cent of poultry production is an “intensive managed production system” managed mostly by large-sized farms with flock sizes of 10,000 birds and above.

Figure 2: Distribution of Poultry Birds among Indian Households 2003



Source: U. Pica-Ciamarra and J. Otte , "Poultry, Food Security and Poverty in India: Looking Beyond the Farm-Gate", http://www.fao.org/ag/againfo/programmes/en/ppipi/docarc/rep-0902_indiapoultry.pdf

With the introduction of the commercial broiler, this proportion has changed and it is becoming apparent that the landless labourers and poor farmers are not significantly benefited in the contract farming model as land ownership is a prerequisite to enter into the contract. Moreover, poultry development is chiefly confined in the cities. Tribal areas and low poultry developed areas are difficult for the modern poultry system to reach out to.

There are no significant collective initiatives in the poultry segment like the PRADAN Model where poultry cooperatives are run by poor sections of the society. They primarily use the backyard venture for their commercial poultry production. In the absence of significant collective initiatives in the poultry segment, the self-sustainable development of the poor is questionable in southern India. However the system can be fine-tuned and there are ways to integrate these resource poor segments with the larger market. Some of the recommendations are:

- Broiler farms like Suguna which have demonstrated a tremendous success in energising rural India through contract farming can encourage the smaller size farms with a flock size of 400-700 birds as these small farms can easily be managed by rural households with lower fixed cost. These small units would generate income in the

range of Rs 15,000–20,000 for 200 days of work annually. It could be a viable business for the self-help group (SHG) women through group rearing activities in rural areas.

- The Indian commercial poultry system can be modified to make it more pro-poor by implementing the lessons learnt from the backyard poultry initiatives that are common in rural communities. The broiler farms can broaden their horizons by engaging in Emu¹⁶ farming also through the contract farming model.
 - It would be a win-win situation for both the farmers and the company.
 - It is estimated that there would be a huge demand for emu meat, oil, skin, feathers, nails and egg shells in India and abroad as its usage is high in industries such as pharmaceutical, fashion and food.
 - Emu farming is in the nascent stage in southern India. A large number of small farms like Susi, Queen etc are involved in emu farming.
 - In the present emu farming system practiced by new farms, the integrator receives a refundable deposit of Rs 1,50,000 to 2,00,000 for 10 emu chicks and sets up a mesh-wire fencing and a small shed (300 sq ft is required for 10 chicks). The integrator also provides feed, medicines and insurance coverage at no cost to the farmer. Rs 6,000-8,000 per month is paid as a growing charge for the two-year period. At the end of the period, the grown emus are taken back by the farm and the deposit amount is refunded. It is estimated that around Rs 72,000 - 1,00,000 can be earned by a farmer as an annual income.
 - The major impediment of the present emu farming system in integrating the poor sections is the huge deposit amount to be made by the grower initially. However, this system can be fine-tuned to include the poor by reducing the deposit amount and lowering the growing charges. With the minimal land requirement and better experiences in backyard poultry management practices, emu farming would be a great source of livelihood for the rural poor farmers.
 - With an established operations and marketing network, and farmer base, considerable market share in the international market with greater experience in vertical integration and contract farming, emu farming would be a profitable business for Suguna while addressing the pro-poor issues on the other hand.

¹⁶ Emu is an Australian bird, living on grains, cereals, pulses and grass, its immune system is so strong that it hardly suffers from any disease. It survives in any type of climate.

Annexure I

Comparison with other Livestock Sector				
	Parameters	Dairy	Fisheries	Poultry
1	Dominant Production System			
	Historical	Small-medium	Marginal-small	marginal
	Present	Small-medium	Marginal-small	large
2	Employment	high	high	medium
3	Growth Opportunity	4%	5-6%	10%
4	Commercial Requirement for Basic Seed Stock	25-30% Private	40-50% Private	95% Private
5	Extension Support	Very good	Moderate	Very low
6	Public Investments	high	High	Very low
7	Focus of Public Extension	Breed Improvement	Existing Breeds	Existing Breeds
8	Farmer Social Profile	Occupational	Strong occupational	Undifferentiated

Source: Kumar Anish, "2-Indian Poultry Sector - Integrating Poor & Small-holders : Opportunities & Challenges", <http://saplpp.org/informationhub/files/presentations/rural-backyard-poultry-development>,

Annexure II

Current Scenario (2010) Extrapolated from FAOSTAT/GoI		Future Outlook : much stronger
Egg production	59. million eggs	<ul style="list-style-type: none"> • Commercial poultry sector's growth at 18.6% per year is expected to continue (USDA) • OECD-FAO Agriculture Outlook 2008-2017 demand and supply to grow at 4.8% and 5.2% per year over the next decade
Poultry Meat Production	2.3 million tonnes	
Per Capital Consumption		Driven by both demand & supply <ul style="list-style-type: none"> • Strong per capita income rises-6% p.a., increase household purchasing power • Rural-Urban Migration • Low priced products • High income elasticity of demand
Eggs	55 eggs per annum	
Meat	1.8 kg per annum	
Contribution to GDP	1.2% at Rs.350 billion, 10% of live-stock sector	
Employment	Over 3 million people (CARI Vision 2025-5m)	

Source: Kumar Anish, "2-Indian Poultry Sector - Integrating Poor & Small-holders : Opportunities & Challenges", <http://saplpp.org/informationhub/files/presentations/rural-backyard-poultry-development>,

Annexure III

Broad comparison of different models on institutional performance parameters					
Agro Industry Model	Reaching large numbers of small farmers	Ensuring adoption of right technology and practices by farmers	Use of modern processing technology and meeting the capital costs	Delivering strong marketing efforts and performance	Effective management and control to meet needs of all stakeholders
Amul	Strong	Limited	Strong	Strong	Strong
Nandini	Good	Limited	Limited	Reasonable	Reasonable
Nestle	Limited	Strong	Strong	Strong	Limited
Heritage	Good	Limited	Good	Good	Limited
Mother Dairy	Limited	Limited	Good	Good	Reasonable
Suguna	Strong	Strong	Strong	Strong	Strong
Safal Market	Limited	Limited	Good	Limited	Limited
HPMC	Limited	Limited	Good	Poor	Poor
Pepsi	Limited	Strong	Strong	Strong	Limited
ITC e-Choupal	Strong	Limited	Strong	Strong	Limited
McCain	Limited	Strong	Strong	Strong	Limited
Desai Cold Storage	Reasonable	Good	Good	Strong	Reasonable

Vasant P. Gandhi, "Institutional Innovations and Models for Agribusiness and Agro-Industry in India", <http://www.gujagro.org/images/prof-vasant-gandhi-iim.pdf>