Poultry as a Livelihood Opportunity –
Two Case Studies – Kesla and Suguna

Kesla Poultry: A Journey of Tribal Women - From earning daily wages to owning of India's largest poultry feed-mill

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Foreword

The Rajiv Gandhi Institute for Contemporary Studies (RGICS), a knowledge affiliate of the Rajiv Gandhi Foundation has five focal themes, one of which is Growth with Employment. Under that themes, agriculture including allied activities is one of the sub-themes, since this sector was the largest source of livelihoods but most of those were not adequately remunerative. In order to increase farmers' incomes, it is necessary not only to help them increase their productivity, but also to help them diversify into crops and allied activities which help generate more income. Poultry is one of those allied activities. The demand for poultry products – eggs and meat – has been growing faster than that for cereals and pulses and with some precaution, it can be quite remunerative for producers.

In light of this, the RGICS requested Dr Sankar Datta, former faculty member at the Institute of Rural Management, Anand (IRMA) and also the Azim Premji University, Bangalore to study this sector and carry out two case studies - one of Suguna Foods, a well-known company that promotes poultry production by small and medium farmers, and the second of the set of Poultry Cooperatives under the Madhya Pradesh Women's Poultry Cooperative Ltd (MPWPCL) which is now the largest such intervention in central India.

Dr Datta is not an armchair academic, having spent more than two-third of his 40 year career in development action. Indeed, he was the person who initiated the poultry project of PRADAN NGO in Kesla, Dt Hoshangabad in 1985, which became the Rs 500 crore conglomerate that MPWPCL is today. Dr Sankar Datta and the undersigned visited Kesla and surrounding in mid-March 2021 to study the project. We are thankful to the team there led by Dr Hare Krishna Deka.

We are thankful Dr Deepankar Roy who introduced us to Mr Sounderrajan, the elder of the two brothers who set up Suguna in 1984, which has now become a Rs 9,000 crore enterprise, working in several states of India as well many countries outside India. Suguna not only welcomes a visit by Dr Sankar Datta to their head office in Coimbatore to share their experiences and information, but also arranged visits to various poultry growers. We thank them for this support.

Dr Datta has very kindly written a piece after the two case studies, comparing the two models and how they suit different segments of India' population. The Kesla model is highly suitable for poor households who may need a lot of handholding and for whom an incremental income of Rs 35,000 to Rs 50,000 a year is major boost of their total income. On the other hand, the Suguna model is more suitable to middle farmers, who are accustomed to growing commercial crops and their younger generation who are looking for opportunities to diversify. A Suguna farmer can make Rs One hundred to three hundred thousand a year. Thus both models fulfil the Growth with Employment objective.

Vijay Mahajan

Director,
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Video Case Study available at

https://rgfindia.org/video-gallery-rgf/ and at

https://youtu.be/6m6GixlHGGY

Suitability of Poultry for Augmenting Agricultural Incomes

Poultry as an industry has started playing an important role in generating and supporting livelihoods of a large number of people. Looking specifically at the developing economies like India this has a significant potential. The Indian poultry market, consisting of broilers and eggs was worth INR 1,750 Billion in 2018. The market is further projected to reach INR 4,340 Billion by 2024, growing at a CAGR of 16.2% during 2019-2024. [1]

Expanding Market

Consumption of poultry in India is reported at 3.5 kg per capita in 2020, while it was only 0.5 kg per capita per annum in 2001, growing at compounded growth rate higher than 15% per annum[2]. As this is way below the World Average of 31.7 kg per capita per annum, a large scope of growth of the market exists in coming years.

Expansion of the middle class in India is helping to boost the demand for more plentiful and less costly proteins namely, chicken meat. Because of its huge population of 1.3 billion, even a small rise in average uptake will translate into a large increase in the total volume of chicken eaten. Other factors favouring chicken consumption are increasing employment levels and incomes, increase in urban population, a growing demand for ready-to-eat products, a rise in the number of quick-service establishments and a general preference for poultry over other meats on a price basis, with declining real price of chicken-protein and in some instances cultural and religious reasons.

Modest Capital Requirement and Small Land Requirement

Poultry business can be started with a small capital investment, usually less than Rs 500,000 and rarely exceeding Rs two million. Small-Holder Poultry does not require large land holding. The national Livestock Census shows that in spite of growth of organized poultry sector more than 20% of the poultry production came from backyard poultry. Getting bank loans for small-holder poultry under various schemes is not very difficult.

Poultry also starts giving returns in short time period and It is Simple to Maintain

Maintenance is usually simple that can be picked up by those engaged in farming easily.

No Licence Required

Poultry does not require licences making statutory compliance easier.

Access to Credit

The Government of India in its National Action Plan for Egg and Poultry - For Doubling Farmers' Income by 2022 [3] has identified poultry as a potential area of intervention for doubling farmers' income by 2022.

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[1] (https://www.pashudhanpraharee.com/status-of-poultry-production-in-india/)
[2] (https://data.oecd.org/agroutput/meat-consumption.htm
[3] http://www.dahd.nic.in/sites/default/filess/Seeking%20Comments%20on%20National%20Action%20Plan-%20Poultry-%202022%20by%2012-12-2017.pdf)

Types of Poultry Farmers in India

However, it needs to be recognized that 'farmers' in India are not one monolithic mass. There is significant variation in their ability to make initial capital investment and in terms of their personal time they can devote for poultry activities. As the following two cases illustrate the steps required for two different groups of farmers are vary different. It will be unwise to poultry growers into one block. Even the National Action Plan for Egg & Poultry needs to further classify poultry growers into four categories, namely

Backyard Poultry, Marginal Farmers, Small and Medium farmers, Commercial farmers.

Though there have been several efforts to promote and support backyard poultry their experiences have not been very encouraging. Though backyard poultry, with 5 to 10 birds in the homestead land, integrated with the living system of the very poor households, increase their food security; helps augment their cashflow, and marginally improve their income, most of these efforts have failed to remain viable in the competitive market (see box item above).

Though breeds like Vanaraj, Giriraj, has been developed for backyard poultry, their experience has not also been encouraging. The prices fetched by these birds in absolute local market has not been anywhere close to the projected figures, which are primarily from organized poultry market. But in the backyard poultry it is difficult to attain the volume required to reach even the peripheral organized market. Attempts to grow these varieties in cage system or even free-range system has failed to provide a viable option.

	Farmer Category	Ability to Invest		Some Significant Services Provided
		Financial	Personal Time	
1	Marginal Farmers	Negligible	1-2 hrs-a-day dovetailing with other activities	Supply of DoC, Feed, Medicine, Collective Marketing Design of Appropriate Production System, Markets that can be tapped
2	Small & Medium Farmers	Unto Rs. 3,00,000	Full + 1 or 2 Hired Labour	Supply of DoC, Feed, Medicine, Centralized Marketing Aligning production system to projected demand in market
3	Commercial Farmers	More Rs. 3,00,000	Supervision of Hired Labour	Tie up with commercial hatcheries, Feed and Medicine suppliers, Internal veterinarian, tie up with Wholesalers. Access to large capital, in spite of high risk.

The Kesla Poultry Model - A Vision of Inclusion

When we commended Kunti Devi, a tribal woman from a humble background of central India, for her having met the Prime Minister of India, she shyly hung her head and said, “Sir, a lot of work still needs to be done. There are many sisters still there in the villages, who still need to be taught how to earn their livelihoods with dignity”. Here, we were standing in front of one of the largest poultry feed plants of India owned by these tribal women. And Kunti Dhurve, of Jamandol village in Kesla Block of Hoshangabad district, who barely managed to attend the school as her poor parents could afford no more and earned her daily bread from collection of minor forest produce and daily wage earnings, now leads thousands of women small holder poultry producers as the the President of Kesla Poultry Cooperative Society, looks at their task as training many other tribal women and not expanding their business only.

Today the Kesla Women's Broiler Poultry Producers' Cooperative Ltd., the first women's poultry co-operative in the country, produce about 1.5 million broilers 3.0 million eggs every month. Though this year 2020-21, they have taken a major beating due to the Coronavirus Pandemic, with massive rejection of poultry market due to fear of virus and production having to be stopped for several months, they crossed a turnover of Rs. 3,500 million, with participation of about 14,000 tribal women, supported by more than 70 professionals and paraprofessionals. Each of the women producers generate a supplementary annual income in the range of Rs. 40 to 50 thousand. The Co-operative also owns a large feed plant, producing 300 metric ton of feed per day and a hatchery producing 50,000 chicks every day.

In order to bring more producers from poorest families, who had barely anything more that their own labour to sell, the women poultry growers of Kesla spread the message to women of other areas and persuaded them to form their own co-operatives, which were later federated into the Madhya Pradesh Women Poultry Producers Company Pvt Ltd (MPWPCL). When there were several state level producer companies, they also built a National Smallholder Poultry Development Trust (NSPDT) for provision of several support services which enables poor women in rural India to start and run successful poultry enterprises.

The Kesla Poultry Model's Techno Commercial Aspects

In the present business model following processes are followed:

Identification of the Area: PRADAN is very careful about selecting an area in which a majority of households are poor. All the subsequent districts in which the constituent cooperatives of the MP Women's Poultry Cooperative Ltd were established, were poorer and remote districts like Sidhi, Singrauli, Tikamgarh, Chhattapur, Dindori, and Alirajpur.

Identification of the Poultry Growers: As MPWPCL is very careful about working with the poor only, this process plays a very critical role. Two critical checks used by them are: (i) she must have a Below-Poverty-Level (BPL) certification from the government and (ii) all her other sources of income together should not give her an income of more than Rs. 150/day. As the smallholder poultry provides an additional income of Rs. 200 per day, her ambition should be to reach that. They also look at cleanliness of the house, as that is an indicator of the family's organized way of living.

Exposure Visit: After short listing some of the potential and interested growers, they are taken for an exposure visit to one of the villages where poultry rearing was already going on. The interact with the poultry rearers, who explain the rigours and disciplines involved in poultry rearing. Even after that if the potential producers show interest in continuing to be a rearer, they are selected.

Construction of Backyard Poultry Shed: After the poultry growers are selected, they are given specification for construction of poultry-sheds, preferable adjacent to their house, using the wall as one of the sides to optimize cost. Over the years KPS has recognized that the summer in these areas is too severe for the bird health. With experimentation they developed a Solar Powered Cooler, which helps manage the temperature, even by the first-generation growers. With the Solar Power Cooler included, the cost of a 500-bird shed comes to about Rs. 150 thousand.

Two Cycle Training: All the selected growers are put through two cycles of growing the birds. In the first cycle they are allocated some birds at Grower stage in one of the centralized training centres, for example in Suktawa. After these birds attain a weight of 1 kg in 21 to 28 days, these are sold. Then the trainees are given a second batch of Day-old-Chicks. Once these birds reach the Grower stage in 4 to 6 weeks, the trainees are allowed to take these birds to their own home. They are provided the feed for the Grower stage in credit by the Co-operative. There are regular visits to their firms by Supervisors employed by the Co-operative. However, training is limited to one cycle of production only for layers, where the expansion started much later.

Computation of the Efficiency Index (EI)

For Example: One producer received 300 DoC and brings back 290 birds weighing 340 kg on the 28th day.

Say, Total feed consumption was 560 kg.

Thus, average body weight comes to 1.17 kg

Livability % (= Birds Brought Back /DOC received * 100) was 96.7%

FCR (=Feed consumed /Body wt. of birds Brought Back) was 1.65 FCR

No. of days 28

Therefore, Efficiency Index = (Average body weight (Kg) X Livability (%) x 100)/(FCR X No. of days) comes to 245.75

The producer does not have to pay anything for these. The veterinary services including vaccination and medication is provided by the Co-operative. The production cycle lasts for 4 to 6 weeks for broilers (meat birds). Growers of KPC follow an all-in-all-out form of production cycle. The broilers consume about 1.25 kg feed for 1 kg body weight. Layers start laying eggs commercially from 16-18 weeks of age, and continue till 75 to 80 weeks. They produce about 1 kg of eggs by consuming about 2.25 kg of feed during their laying period.

Production at Household Level: After the two cycles are reared by the new inductees, the growers, who also become a member of the Co-operative or the Producer Company. They are provided day-old-chicks (DoCs) or chujas, for a batch size of 500 birds and feed for three phases (released in instalments).

Marketing of the Birds: After the birds attain a marketable body weight, close to 1 kilo, the growers bring their produce to the co-operative. As both birds and feed are provided by the Co-operative, the growers get a grower charge (as discussed later in section on De-Risking the Producers from Market Risk) this is delinked from fluctuations in the market prices).

To incentivise production efficiency, rates are determined on the basis of an Efficiency Index (EI). If a producer gets an EI > 400, she is paid @ Rs. 7-8/kg of body weight, for those who get EI > 300 are paid Rs. 5-6/kg of body weight and those with EI> 200 are paid Rs. 3-4/kg of body weight. Though one of the growers interacted with could compute the EI, they had a broad sense of it and trusted the staff to do it accurately.

The birds are marketed by the co-operative, in local markets in towns like Hoshangabad, Itarsi, Sarani and Betul. It has also opened some of the retail outlets in Bhopal.

Price Fixation and Profitability: As the production is taken up on a co-operative basis, the actual price realized is determined at the end of the year, after birds have been sold. Though there are several transfers of goods in between, these are managed through a transfer pricing system. MPWPCL maintains its own parent stock (described later in the section on Backward Linkage). They produce the hatchable eggs, for which strict standards are maintained. These are then transferred to the Hatchery owned by the MPWPCL. To maintain strict profitability control these transfer prices are reviewed periodically. From the hatcheries the Day-old-Chicks are given to individual co-operatives/ producer companies in Kesla, Singrauli, Churhat or Anupur, for example.

These Producer Collectives then transfer the DoCs to the Growers. They also buy the feed for the whole batch from the feed mills owned by MPWPCL. Producers are then given a Grower Charge as discussed above. Thus, at the end of the year a total revenue and costing is done. This gross margin is divided for unit of production and are paid to the growers as Bonus. Thus the total return to a producer works out to be Grower Charges paid to her plus the bonus distributed at the end of the year.

The Journey Starts: Identifying Livelihood Possibilities for the Poor

In 1985, Professional Assistance for Development Action (PRADAN), an NGO co-founded by Vijay Mahajan and Deep Joshi decided to set up Teams for Rural Industrialization and Artisan Development (TRIAD) with the support of IDBI in backward areas to identify appropriate livelihood opportunities for the people there and help people there to adopt new livelihood activities to augment their lives.

Vijay Mahajan and Sankar Datta, two professionals with PRDAN, after exploring a few alternatives zeroed down on Kesla block of Hoshangabad District of Madhya Pradesh, a forested area in the lap of the Satpura Mountains in Central India. The area was predominantly inhabited by tribal people. It was characterized by extreme poverty, rainfed agriculture with low productivity, distress migration and alcoholism. Their primary occupation was collection of some minor forest produces during their seasons, and occasional daily wage labour, when available. Another illicit activity which gave them some income came from carrying headloads of forest woods to be sold as firewood in nearby town, Itarsi.[4]

[4] The evolution of the Kesla Poultry Society has been documented in their article: "PRADAN–Kesla Poultry Samiti: Enhancing the Income of Tribals" https://www.pradan.net/sampark/wp-content/uploads/2019/08/PRADAN%E2%80%93Kesla-Poultry-Samiti-Enhancing-the-Income-of-Tribals-.pdf

PRADAN initiated a detailed exploration of alternate livelihood opportunities that could be pursued in this area. Of the list of 18 potential activities suggested by interns from IRMA, three activities, including poultry, were favoured because the tribal community in Kesla were familiar with rearing small numbers of indigenous chicken and PRADAN had a veterinary doctor in the team based in nearby village Suktawa, who could support the programme. Two other activities chosen included growing of oyster mushroom and light engineering works.

Developing the Production System

Having identified poultry rearing as a potential activity, the first major bottleneck that the PRADAN Team encountered was developing a **production system**, that the tribal women, who at best had kept a few backyard birds for self-consumption. They were quite familiar with free range production. Moving them to a cage system of production was quite a task.

As the light engineering intervention of PRADAN was quite ready to produce cages required for rearing of the birds, after series of trials, the PRADAN team found that it would better to move the tribal families to deep-litter system of rearing, before they were moved to cage system of production.

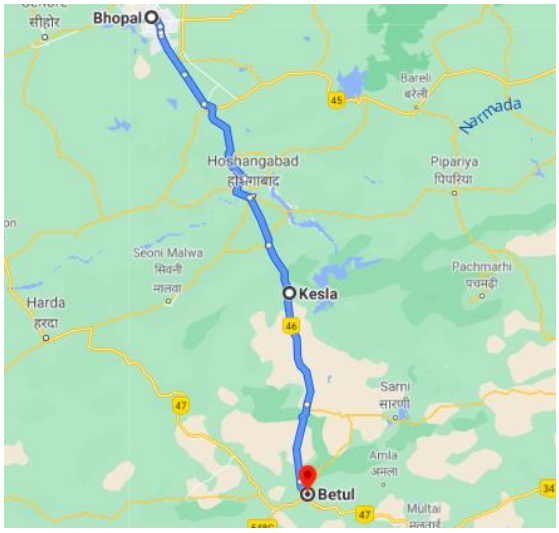
Dr Pradeep Bose, a PAU veterinarian and IRMA graduate joined as the Project Team Leader at Kesla by then. The next production issue they encountered was with **bird mortality** rates. The first-generation poultry growers were not accustomed to health and hygienic living conditions, for the birds or for themselves. This resulted into very high mortality rates, even when there were no disease outbreaks. To counter this mortality problem in 1986, PRADAN introduced **Cockrel production** (male layer birds, which were otherwise rejected) as against Broiler Production.

It was soon recognized that though Cockrel were hardier and could tolerate larger climatic and disease variations, economically they did not make sense. Though Cockrel Day-old-Chicks (DoC) were available @ Rs. 1.50 per chick, as against Rs. 5.00 per DoC of broilers, they consumed 2.6 kg of feed to gain 1 kg body weight against 1.5 kg for broilers. Though

better class hotels and restaurants as well as economically better-off households preferred broilers, the average roadside hotels and lower economic segment of the market consumed Cockrels, as they were far cheaper. As a result, from the producer's point of view it not only allowed lower price realization but also restricted the market. With the growth of broiled production in the country, the domestic consumption of Cockrels diminished sharply.

Even at this stage, with the concerns about mortality and deep-litter production system looming large, most of the production system was centralized, with the veterinarian at the PRADAN Suktawa campus providing all necessary support services. But with trial and error going on to find an appropriate level of production technology, with inadequate infrastructure of the area and services centralized from PRADAN Campus, the local field worker team not being able to cope-up with the systematic expansion of poultry, the production system took a bad hit. The veterinarian had also to be transferred out of this project location due to increasing requirements in other project locations. This was also a period when the poultry intervention faced a serious marketing challenge (has been discussed in a later section) leading to the production system really came down to only 22 producers.[5]

That was a time PRADAN hired a person called Joseph from Namakkal district of Tamil Nadu, which is a major poultry production hub, who had experience in commercial production of poultry. Though he did not understand the local tribal language or even Hindi, because of his extremely good grip on poultry production, he soon earned good credibility among the locals. He recognized that the first-generation rearers were not only poor in maintaining hygienic conditions, but they were also clumsy in managing the production process. They spilled more feed than necessary. He drew attention to managing good **Feed Conversion Rat**io (FCR), adequate waking-hours for the birds, timely vaccination and administration of medicine. This involved **bringing in discipline** amongst a group of tribal women, who not having been through the rigor starting from the school-going, have a very different kind of living process. PRADAN recognized that if livelihoods have to be generated for the unskilled/ semiskilled majority, designing an appropriate production system would play a critical role.



The Marketing Challenges

By choice PRADAN had identified Kesla Block as the area of intervention, as it was considered amongst the poorest of the areas, inhabited by disadvantaged people from tribal communities. Though it is located on the National Highway 46, which is part of the primary highways connecting Delhi to Chennai, as the region is hilly and forested markets in the

[5] Not including the 33 mushroom producers, who were also part of the PRADAN supported rural producers.

region have not developed. The PRADAN team started with exploring to tap the Bhopal market, with an expectation that after some training youth from the local community would be able to handle marketing themselves.

But this turned out to be a distant dream. The networks and alliances that existed in the traditional poultry market not only resisted entry of this new player but also devised mechanisms difficult to be handled by the tribal youth. That was a time when they were producing Cockrels which were also demanded by small roadside restaurants. Therefore, PRADAN explored the option of linking the tribal to some of these restaurants. But this also turned out to be an unviable solution as their order volumes were very small and erratic.

That is when they tried a third model of marketing where they invited the traders from Bhopal to come and procure chicken from Suktawa itself, where the sales could be done by the local youth but under strict vigil of the professionals.

As a fourth model of marketing PRADAN professionals took up the responsibility of the marketing on themselves. This apart from saving these first-generation entrepreneurs from the arduous task of handing the market players, also helped in de-linking the remuneration to the poultry rearers from market fluctuations.

However, while marketing their products directly, they also observed the volatility in the poultry market. In 2006, when there was an attack of bird flu prices of chicken came down from prevailing Rs. 40-45/kg to Rs. 5-10/kg. However, in the same year, when many of the poultry firms closed down, the prices swung back to Rs. 60-65/kg. With this price fluctuation KPS actually made substantial profit and distributed bonus to its members.

Competing with large corporates like Suguna Feeds and Indian Broiler also posed serious challenges for the stability and expansion of the women's co-operative. Some of these companies started identifying some of the best producers of KPS and made lucrative offers to them. Some other companies started saturating the markets tapped by MPWPCL at unviable prices to push small producers out of production. But the women and the professionals working with them took support from government officials to avert such unfair trade practices against these first-generation entrepreneurs.

De-Risking the Producers from Market Risk

With these experiences PRADAN recognized that for promoting a commercial activity amongst the economically weaker sections of the society, de-risking the smallholder producers played an important role. The poor were not in a position to absorb market risks and continue their activities for long. Initially PRADAN had started dividing the net realization from sales of poultry into three equal parts: (i) Part one went towards loan repayment, (ii) Second part was retrained as a group fund, with which they could make some of the common expenses and absorb some risk when the markets were down and (iii) the Third part was given the rearers as their remuneration. But with this system when the markets were really down, the producers got no remuneration.

To avoid subjecting the producers to such market risks, in 1997, **Producer Remuneration** was delinked from price realization from the market. Producers were paid a grower charge based on the number of birds supplied and their bodyweight. The market risk was borne by the producer collective, Kesla Poultry Society (KPS), which was formalized much later (discussed in a subsequent section on Institution Building Challenges).x

The Growth Phase: 1997 onwards

Having worked out some of these elements of design required for introducing poultry as an alternate source for augmenting their livelihoods, for underprivileged sets of people, in geographically disadvantaged locations, where the poor are usually inhabited, the PRADAN team also felt the need for expanding their business. But both the PRADAN professionals and the producer leaders were clear that this was to happen by inducting more and more of the underprivileged people and not by including some large producers, who preferred capital intensive production systems.

Increasing Outreach: An Opportunity and a Challenge

Though at the initial phase, when the systems started getting stabilized expansion took place only through word of mouth, its limitations were also felt soon. With production system still evolving, the regular beating of the market system, only 18 of the IRDP funded producers remained active by 1997.

But some rays of hope also emerged with the World Food Program (WFP) initiating a support for Satpura National Park Fringe Area Development Program[6] of the Forest Department. They looked at poultry rearing as an opportunity for the indigenous people living in the fringe areas. The team from this program visited the Kelsa Project and thought it was fit for replicating in other areas as well. They provided a grant for extending both the

[6] This was an integral part of the The Madhya Pradesh Forestry Project (MPFP) one of the largest foreign-funded forestry project in India. The project commenced in 1995 with an IDA loan of approximately 58 million USD from the World Bank. This Biodiversity Conservation and Rural Livelihood Improvement Project (BCRLIP) was conceptualized in 2005 to resolve the conflict between man and animal among rural people living on the fringes of important protected areas. Among the six landscapes selected for this project Satpura in Madhya Pradesh covers the districts of Hoshangabad, Chhindwara and Betul and includes the Satpura National Park and the Bori and Panchmarhi wildlife sanctuaries.

poultry and mushroom production programs of PRADAN to induct 180 Poultry Producers and 130 Mushroom producers in this program.

By this time the Self-Help Group (SHG) movement of poor women had gathered credibility. The Government of India had modified the IRDP and started discouraging direct loans by banks to poor individuals, instead asking banks to lend to SHGs, who in turn would distribute the bulk bank loan to the SHG members, as needed by each as also their capacity to manage the activity and repay the loan. Thus, Madhu Khetan, who was strengthening the women's activities in Kesla area adopted the SHG model. Some SHG members also took up poultry as an activity and took loans from SHGs for sheds and inputs. In 1998 with the support from AusAid, the SHG intervention of PRADAN got a big boost. Most of the poultry producers who joined the program were member of some SHG or the other.

The SHG platform helped the poultry intervention in several ways:

1. The real resource poor, who could not even make the small investment required for poultry activities, could take up poultry activity with the small amount of capital through their Self-Help Groups.
2. It provided the women a forum to discuss activities of poultry and share their experiences.
3. As SHG training involved training in systematic account keeping, however small, they could start keeping track of their poultry business, in their mind.
4. They learnt to manage their own institution: a collective entity.
5. SHG provided an excellent platform for dissemination to alure other tribal women to take up poultry activity.

Partaking in the SHG activities and the WFP necessitated streamlining the whole production system as well as the accounting system. As KPS was not a registered body, the SHGs provided the institutional framework for them. Most activities were discussed in carious SHG meetings, though formally the poultry activity was just one of the means of augmenting women's income. However, all the accounts related to poultry were kept as a part of the PRADAN accounts. As a result, the exact profitability of poultry production could be computed. Thus, PRADAN paid special attention to developing an appropriate system of accounting and information flow. This exercise turned out to be a boon-in-disguise. The whole production system, the accounting system and management information system got systematised, though after a lot of hard work.

By implementing WFP supported Satpura BCRLIP Programme quite well the MPWPCL team got well entrenched into the Government of MP circle. This model of production was also appreciated by the DRDA. Support was also extended under TRYSEM. Subsequently support was provided by ICDS, ITDA and several other schemes (as mentioned earlier in the section on Capital Mobilization). In 2001, the growing body which was duly incorporated as the Hoshangabad Kesla Poultry Cooperative Society, moving from the unregistered KPS. By 2003, PRADAN had hired Dr Harekrishna Deka, a veterinarian from Assam to be the CEO of the Hoshangabad Kesla Poultry Cooperative Society, moving from the unregistered KPS.

At this stage, Shri Rahul Singh, who was the Minister of Rural Development in MP State,

recognized this effort of bring new unskilled people into a productive function, to have serious potential for poverty alleviation. He invited the KPS team to visit his constituency in Churhat; and do a feasibility assessment of inducting more rural producers into poultry production. When the KPS Team found it to be a feasible option, they started operations there with identification of the villages and potential rearers. The Minister also persuaded the UK-DFID sponsored Madhya Pradesh District Poverty Initiatives Program (DPIP) to provide necessary support, especially for construction of poultry sheds in poor household.

However, the leaders of the KPS argued that they cannot become a member of their co-operative. If need be, an independent co-operative should be promoted. Thus, in 2003 the Churhat Women Poultry Producer Company Limited, Sidhi (Churhat Murgi Palan Samiti) was promoted. After this was successfully established, the CEO of the DPIP, Mr Pastor felt such projects could be spread to other districts as well with DPIP support. Thus poultry coops were established in several districts. This led to formation of the Madhya Pradesh Women Poultry Producer Company Ltd. (MPWPCL) in 2007, Dr Deka took over as its CEO. His deputy in KPS took Dr Mridul Hazarika took over as CEO of KPS.

Challenges of Backward Integration – Feed and DoCs

With increasing competition in the poultry industry and the need to service a larger number of first-generation poultry producers, the MPWPCL started recognizing the need for backward integration. The two main cost components in poultry are the cost of the feed and the cost of the day old chicks (DOCs). Feed is also bulky so it is costly to transport from far. In 2005, the KPS set up a small feed plant of 7-8 Tons/day capacity. This could produce raw feed using maize and other ingredients, procured from nearby sources.

The 2005 Feed Plant could produce 8 Tons/Day raw feed

As the number of producers requiring feed increased, there was a need for a much bigger feed plant and so after several years of planning, identifying land in a suitable location, and

arranging for finance, the MPWPCL established a 250 Tons/day automated feed plant at the Kiratpur Industrial Area near Itarsi. This is one of the largest poultry feed plants in central India and it produces cooked or processed feed, ready to feed the D)Css and the growers.

The Kiratpur MPWPCL automated poultry feed plant produces 250 Tons/day processed feed

In case of DOCs, it was seen that when they were buying broiler chicks for Rs. 47/ DoC, the actual cost of production would rarely cross Rs. 42/ DoC. Cost of feed, which was one of the major elements of cost of broiler production could be brought down from Rs. 108 to Rs. 90 only. This was a substantial savings, which would help them compete in the market with other larger aggregators like Suguna Foods, Venkateshwara Hatcheries, Indian Broilers, Shalimar Organics, or Pashupati, who by that time had made their presence felt in the Indian Poultry Market.

By this time MPWPCL had struck a partnership with the Venkateshwara Hatcheries (Venky's)

for regular supply of chicks. With some serious negotiations, Venky's allowed MPWPCL to set up a Parent Stock Farm by the MPWPCL, serving the Central India. With some support from the Central Avian Research Institute, Izzatnagar, UP, an ICAR centre, a large parent bird firm and a hatchery was established. The women leaders of the co-operative took active role in searching for land for the unit. After lot of search, they identified an appropriate land of 15 acres in Kiratpur Industrial Area near Itarsi. When another adjacent piece of land was also available NSPDT purchased another 15 acres, on which the Feed Mill got established. The parent stock farm had to build adequate arrangements for retaining the genetic purity of the stock in addition to sanitary conditions. These together involved an investment of INR 45 million.

The Commercial Broiler Hatchery of MPWPCL at Jamani, near Itarsi, Dt Hoshangabad.

Designing an Institution Owned and Controlled by Producers for a Competitive Business:

However, with all these experiences of enhancing competition, rapidly changing technology of production, globalization of the poultry input market, it was recognized that there will remain several decisions that will have to taken by professionally competent staff. This posed serious challenges in design of the institution.

At the very onset PRADAN thought of creating an institution of the producers. But this was 1980's. The whole co-operative movement in the country was going through several barricades. Major co-operative leaders were questioning the dominant role of Registrar of Co-operative Societies (RCS). Asset purchase of many co-operatives had been stalled. Boards of several co-operatives had been superseded.

Though many of the PRADAN professionals theoretically was convinced that the most appropriate form could be a co-operative, due to this socio-political context of these organizations, they refrained from registering them as a Co-operative. They were also convinced that though Society was one form of an organization easier to manage without much administrative or political interference, it was not the best form of organization for undertaking commercial activities. PRADAN itself was registered as a Society. But it was

engaged in provision of services and not commercial operations.

Livelihood intervention is a public purpose institution, but it utilizes private instruments like trading, manufacturing, attracting capital investments. So, the search continued for an appropriate form of an organization. The poultry producers were organized as Kesla Poultry Society (KPS), leaving it ambiguous whether it was a Co-operative Society or a Charitable Society. PRADAN, in 1987 registered a company under Section 25, the Indian Grameen Services. However, it being a Section 25 companies could not give any return on the capital to the contributors of capital. Thus, no serious provider of capital for commercial purposes was willing to 'invest' in such a company.[7]

By 2001, when a new Co-operative Law was enacted in MP, which assured much more member control and autonomy to cooperatives. At this stage, KPS was registered as the first smallholder women led poultry producers' co-operative in the country, the Hoshangabad Kesla Poultry Coop Society Ltd. (KPC for short). Dr Deka became its CEO.

By 2003, as discussed earlier, the KPC team had promoted another co-operative like structure: the Churhat Women Poultry Producer Company Limited. In several other districts, Producer Collectives, Co-operative or Producers' Company came up. They needed some common sets of services. Especially when thinking about the investments into backward integration, the need for developing a state level federation became quite imminent. The Madhya Pradesh Women Poultry Producers Company Pvt Ltd (MPWPCL) was formed as a federation of these Producer Collectives in 2007 and Dr Deka took over as its CEO.

Organization Culture: Reporting to Rural Producers

But just creating an appropriate organizational design was not enough. Even with the structure being what it was, the team encountered a serious challenge in reporting to the rural producers. Though, notionally, with the formation of the Co-operative, the poultry producing women had become the owners of the business, still many critical decisions continued to be taken by the professionals.

Though all these professionals employed by KPC reported to the representatives of the poultry growers, in the present socio-cultural context, it was difficult for the 'owners' to treat the urban educated professionals as their 'employees' and vice versa. This became even more critical to distinguish between the identities of PRADAN and the KPC team. While PRADAN professionals were development workers who inducted the tribal women into poultry production, to manage their organization(s) efficiently, the KPC hired professionals as employees. Thus they needed oversight by the members, the women poultry producers.

Though the team was highly influenced by the Anand Pattern Dairy Cooperative model of Dr. Varghese Kurien, who retired as 'a servant of the farmers', the road to put that thought into action was quite bumpy. Though Anish, the leader of the program from PRADAN said

[7] Ivashina, Victoria (2021). *Patient Capital: The Challenges and Promises of Long-Term Investing*. Princeton University Press. ISBN 978-0-691-21708-6.;
https://press.princeton.edu/books/paperback/9780691217086/patient-capital

"the model in our mind was one of Mondragon[8]" it was not easy for new inducted professionals to accept the tribal women as the owners they had to report to. To reinforce this message a lot of effort was made for member education, training some of their leaders not only to rear poultry, but also to manage a poultry business as well as a business entity, the co-operative. This culminated in the Kesla Poultry Cooperative (KPC) moving out of the PRADAN Campus at Suktawa.

This system of reporting to the producer members involve not only informing them about the various decisions related to the business, including some of the large investments, but also helping them understand these choices, and asking for their views on the same. But very importantly, though this process is often slow, the KPS team has continued to maintain this as a part of its organization culture, through more than three decades now, in spite of several changes in the leadership and the business conditions. It was also noteworthy that the team has maintained its pro-poor focus through the decades, as they repeated the message several times, in addition to putting it in the Standard Operating Procedure of selection of villages and selection of potential growers, described earlier in this case study.

Growing Beyond Madhya Pradesh – The NSPDT

By 2009, when there was demand for the poultry work to spread to other states, PRADAN senior colleagues decided to establish a multi-state promotional entity – the National Smallholder Producers' Development Trust (NSPDT) and appointed a senior PRADAN colleague deeply involved with Kesla and MPWPCL, Anish Kumar, as its Chairperson. Dr Deka took over as its CEO of the NSPDT.

Once again, one can see that PRADAN used the model that Dr Kurien had evolved. In 1948, he joined the Kheda District Dairy Union (Cooperative) Ltd and later rebranded it into Anand Milk Union Ltd, named after the town where the milk processing plant was. This yielded the acronym AMUL, which is one of the top brands in India. Then as the dairy cooperative movement spread to other districts of Gujarat state, the leaders of the movement, such as Tribhuvan Das Patel, decided to establish the Gujarat cooperative Milk Marketing Federation (GCMMF Ltd) and decided to hand over its management to Dr Kurien and his hand-pocked team of professionals.

Still later, in 1964, when the then Prime Minster, Lal Bahadur Shastri visited Anand and was very impressed by the work, he asked Dr Kurien – why cannot there be an AMUL in every district of India? Dr Kurien responded with the proposal to establish a National Dairy Development Board (NDDB), which became the prime promotional organisation for the dairy sector in India. The NSPDT is designed on similar lines and so far has established poultry growers cooperatives / producer companies in five more states of India.

The NSPDT has enabled more than 14,000 women poultry producers organized in 25

[8] The Mondragon Corporation is a corporation and federation of worker cooperatives based in the Basque region of Spain. It was founded in the town of Mondragon in 1956 by José María Arizmendiarrieta

producers' organisations in Madhya Pradesh, Jharkhand, Odisha, West Bengal, and Assam posted sales of Rs.525 crore in 2020 and Rs 518 crore in 2018-19. The collectives earned a profit of Rs 42.62 crore in 2018-19, and these organizations now have total equity base of Rs. 82.75 crore. Thus in commercial terms, the program is successful.

The developmental impact of this program is summarised by NSPDT as follows:

- Income from poultry has reduced the deficit the family faces and has replaced wage earning as a livelihood option.
- With income going into the hands of women, incidences of wife beating have reduced.
- Women producers have become more assertive, which is visible in their interaction with outsiders.
- Women have become health conscious due to an increased awareness of diseases and medication, because of the training they receive on healthcare in poultry training. Further, having cash enables them to take care of medical expenses.
- Migration has significantly reduced. There have been a few cases of producers making investments from their own resources or taking loans for expanding the poultry production infrastructure.
- Poultry activity helps women and their children stay back at home, restoring their family/social life, and most importantly eliminating the disruptive impact on children's education as a result of migration of children with parents.
- Many producers have expanded their poultry sheds, and have diversified livelihood portfolio by investing in land and livestock etc.

The NSPDT is looking to scale up and replicate the model in the states of Odisha, Chhattisgarh, Bihar, and Assam apart from existing work areas in MP and Jharkhand, doubling outreach to 20,000 farmers, 50 cooperatives, producer income of ₹1 billion and sales turnover of ₹10 billion. These numbers would place this initiative among the top five poultry producers in India and make it the largest such network globally. NSPDT would aim to maintain this position and strive to better it over the coming years."[9]

Concluding Remarks

From this case study it can be seen that transforming daily wage-earning tribal women to owner of India's largest feed mill is a different business than running a poultry business. It involved identification of a really backward area where the real poor really reside, identifying the real poor whose ambition would be to reach this level of prosperity that can be generated from the newly introduced activity. It would involve developing a complete production system that can be adopted by the identified poor, including developing a marketing model, de-risking the poor producers from market and other related risks.

[9] https://nspdt.org/achievements/ and https://nspdt.org/aspiration/

The system design would have to incorporate appropriate training processes, distinguishing production processes that would have to be carried out at a household level and at collective centres. It would involve playing the role of a foster entrepreneur on behalf of the poor, facing the growing challenges of the new technology and market conditions, by not only mobilizing different types of resources, capital and human, but also building a culture of being accountable to the producers, while continuing to provide necessary inputs for successful running of the business. Coming up with an appropriate institutional design is critical and just adopting a standard model of a Co-operative or a Producer Company alone would not be enough, if we are planning to use poultry and egg production as a measure for alleviating poverty and doubling farmer's income by 2022, as proposed by the Government of India.