

Jharkhand Women's Self Supporting Poultry Federation: A Perfect State of Cooperation

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The Jharkhand Womens' Poultry Cooperative is growing into a statewide movement through the successful implementation of the Small Holder Broiler Farming Model.

A detailed market study commissioned by PRADAN in collaboration with the poultry industry in 2002 showed that the whole of Jharkhand is a huge deficit market for broiler birds. The daily sales of live bird was estimated to be around 80 metric ton (mt) with major consumption centers located in big and smaller towns in the industrial and mining areas. As against the demand, the average daily production in Jharkhand did not exceed more than 12 mt. The huge gap between the demand and supply was met through supply from nearby states like West Bengal, Orissa and Chhattisgarh and also from far off Madhya Pradesh. The annual growth of the poultry market in Jharkhand was estimated to be around 20 per cent in real terms.

Seeing this immense potential, the members of self-help groups (SHGs) of Kuru block of Lohardaga with support from PRADAN (Professional Assistance for Development Action, a voluntary organization involved in the promotion of livelihoods for poor rural families), decided to take up poultry activity as a livelihood opportunity. With women belonging to resource poor families with low risk-taking ability, PRADAN thought it prudent to try out the idea of small-scale poultry units with each producer rearing not more than 300 poultry birds per cycle. Efforts made towards collectivizing small poultry growers in a cluster yielded very positive results in terms of helping the producers in reaching economies of scale and to gain bargaining power to negotiate with the market on fairer terms. This mechanism was institutionalized through establishment of the Poultry Producers' Cooperative involving all the producer women.

The first cooperative was registered in November 2002 in Lohardaga. Subsequently, in a short span of time, four more cooperatives were established in the districts of Gumla, Lohardaga, East Singhbhum and Ranchi (presently Khunti). Such an endeavour initially received favor from the Department of Cooperation, Government. of Jharkhand that offered financial support to 400 poultry producers through their cooperatives.

This initiative has further expanded in recent years to cover 3,969 poor rural women, who find year-round income opportunities in broiler poultry farming. The aggregated production of all the members in the last financial year amounted to 6933.62 metric tonne of live birds (or an average of 20 mt per day) to gain nearly 20 per cent share of the overall Jharkhand market. Most remarkably, all the cooperatives demonstrated their resilience to withstand the shock of the bird flu scare and could retain all the producers in the business. The net profit received by the producers in the last year itself amounted to Rs. 309.05 lakh.

The major success of the initiative lies in the standardization of the Small Holder model of poultry units that offers enormous scope for further expansion of the activity to benefit larger numbers of poor rural women in Jharkhand.

The Rationale for the Initiative

Rain-fed agriculture has traditionally been at the core of livelihoods for poor families in rural Jharkhand, supplemented in varying degrees by small livestock rearing, handicrafts, wages and hunting and gathering. Improving agricultural productivity and more generally the productivity of primary rural resources is, therefore, essential to enhance rural livelihoods. Agriculture, however, has inherent limits as a livelihood for landless people and marginal farmers; it offers only fragile livelihoods to farmers in agro-ecologically marginal or vulnerable regions; further declining farm sizes due to population growth further limits the livelihood potential of agriculture. Thus, beyond increasing agriculture productivity, the challenge therefore is to develop livelihood opportunities based on rural enterprises that do not depend on land, supplement agricultural income, offset its uncertainty and exploit the growing demand for new products, especially in urban centers.

Poultry: The Big Opportunity

By the year 2020, it is estimated that poultry would account for the largest portion of the livestock output, which would be more than 50 per cent of the total global agricultural output in financial terms. In India also livestock accounted for about 32 per cent of the total value of agricultural output with poultry contributing a major share. While the production of agricultural crops has been rising at a rate of 1.5-2 per cent per annum, that of eggs and broilers has been rising at a rate of 8-10 per cent per annum. The increasing demand for livestock (protein) products is driven by sustained economic growth and rising incomes. In addition, the income elasticity of demand for meat products is high. Meat consumption has increased by over 80 per cent between 1983 and 2000. The greatest increases (in percentage terms) have occurred in poultry. In 1981, the production of poultry meat was 0.12 million ton which, at present, is 2.2 million ton. The per capita consumption of poultry meat in 1970 was 146 gm and at present it is 1.6 kilogram.

The Innovative/Best Practice

The best practice in the poultry industry is large-scale poultry farming, supported by backward and forward linkages which include the necessary vertical integration such as parent farm, hatchery etc.. It reduces the cost of production and production on a large scale helps to establish monopoly in the market for better price realization.

The Process Adopted -- The Small Holder Poultry Prototype

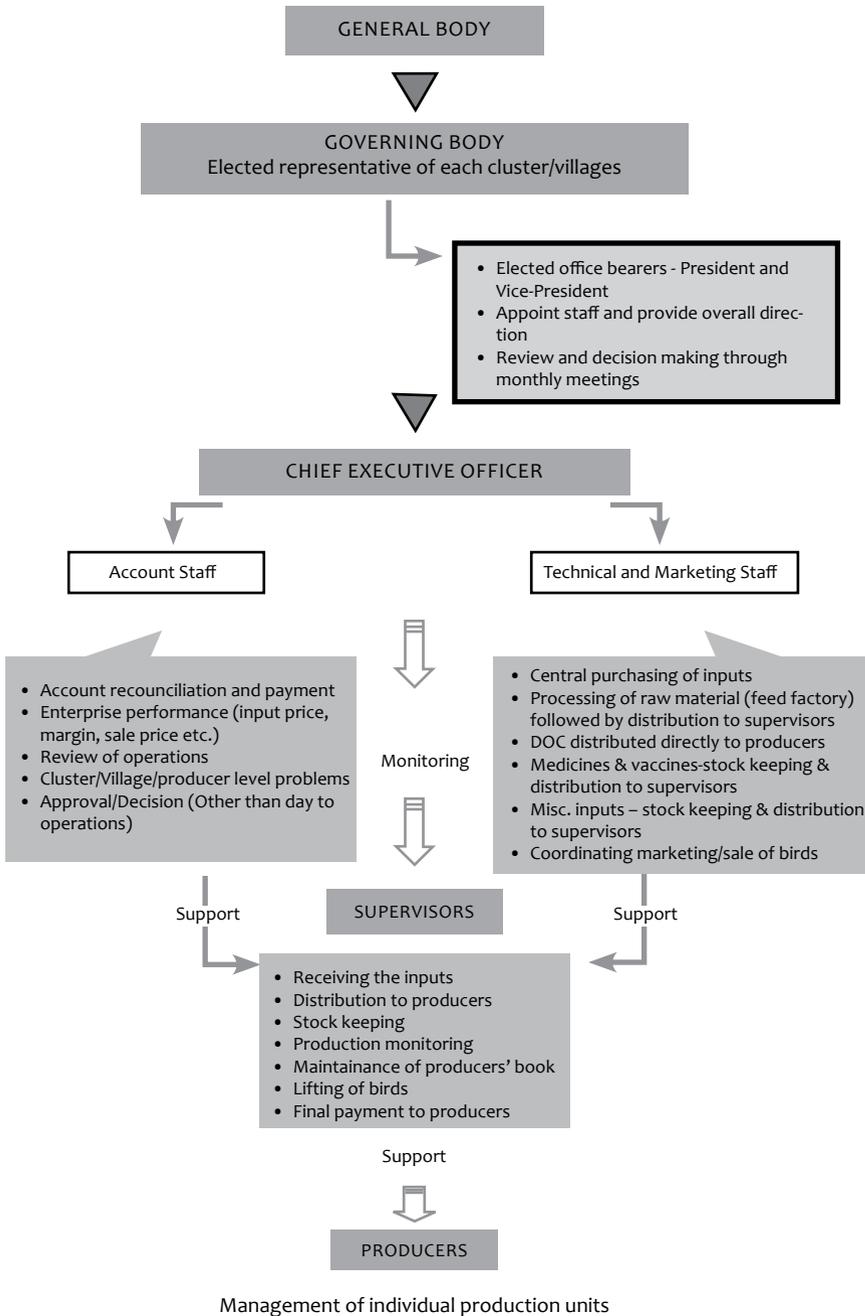
The prototype attempts to adapt the complex production technology in a small farmer's context at the same time achieve economies of scale through collective procurement of inputs and marketing of produce. The essential elements of the small-holder poultry prototype are:

- Decentralized production infrastructure of 400-500 birds in the backyard of the family thereby fitting it into their daily life.
- Ensuring production efficiency with rigorous training of producers, intensive production support and quality on-call referral veterinary services.
- Cost effectiveness with collective procurement of inputs and sale of birds to achieve economies of scale and backward and forward integration.
- Creation of a system to address the volatile nature of market by delinking production efficiency from enterprise efficiency and collectivization of operations involving market interface.
- Customized financial and MIS software for decentralized operations.
- Growing charges fashioned to create incentive for efficiency and paravet charges linked to production parameters.
- Capacity building to facilitate transition from wage earner to entrepreneur.
- Participatory assessment of business performance and internalization of best practices at the individual producer level.

Box:1 : A Broiler Farm - The Family Context

A typical broiler farmer of the collective is a rural woman from disadvantaged communities, hitherto, dependent for their sustenance on rain-fed agriculture and wage earning. Today through systematic intervention at all the enterprise stages she has gathered skills, infrastructure, inputs and marketing arrangements for a successful home-based broiler poultry unit. The minimum she requires is one cent of land (500 sq ft), either owned by her or taken on lease. She earns between Rs 15,000-20,000 a year which works out to Rs 75-100 a day for her 200 days of engagement. This income, available to her in a regular stream of cash flows on a continuous basis, helps her to meet the need of cash expenses and also of capital formation in the family. This income strengthens the woman to negotiate a better deal for herself within her family and the larger society. Income from the activity equivalent to 200 wage days reduces migration and helps the family invest on existing resources, most notably the arable land - homestead or otherwise -- thereby further augmenting the sufficiency in the hitherto deficit household.

Figure 1: Small Holder Broiler Farming Model



Institutions involved

Jharkhand Womens' Poultry Self-Supporting Cooperative Federation Ltd (JWPSSCF) was registered on March 31, 2005. The Department of Cooperation, Govt of Jharkhand supported the federation with a grant of Rs. 15 lakh to meet its administrative overheads and infrastructure costs for two years. Presently, the federation has 11 member cooperatives with operations spread over Lohardaga, Senha, Gumla, Khunti, E.Singbhum, Patamda, Bokaro, Koderma, Godda, Hazaribagh and Dumka. All the chairpersons of the primary cooperative societies are the governing board members of the federation. The current scale of chick placement in all the cooperatives is to the tune of 10 lakh DOCs (Day old chicks) per month. At this scale, the federation sustains the largest organised poultry operations in eastern India with 3,969 producer members.

The main functions of the federation are

- Procuring material inputs, especially the kind that are to be procured from outside the state and supply of the same to all the member cooperatives.
- Supporting member cooperatives in collective marketing of poultry birds.
- Coordination among member cooperatives for ensuring strategy coherence and for setting higher efficiency standards.
- System setting for production management and accounting and periodic review of operations of all the members.

Technical feasibility

a) Suitability of climate and potentiality of the area:

Jharkhand is considered to be one of the best states as far as climate is concerned and availability of plenty of upland makes it highly suitable. The market for broiler chicken is growing fast and unavailability of big farmers or integrators have made it highly conducive for the small farmers to grow. The average daily requirement of the state is 140 mt. Eighty per cent of which is being supplied from neighbouring states.

b) Technical norms:

The smallholders have been organised into producers cooperatives for the benefit of collectivisation. The details have been provided above.

c) Facilities and infrastructure available for supply of inputs, veterinary aid, marketing, training/experience of the beneficiaries:

All the producers have to be members of the concerned cooperative societies. The co-operative societies with support from the state federation procure the inputs in bulk and supply to its members. The cooperatives with the help from the federation have been able to have hatchery and feed mills which supply chicks and feed to the members. The medicines and vaccines are supplied in bulk from the federation. The supply chain of the inputs is in place.

All the cooperative societies have well trained veterinary graduates who work as production managers. They are supported by village level paravets. They have also been trained to support the members in managing the birds.

Since the state is a huge deficit market of broiler birds, the marketing of the produce has not been a problem so far and being done on a single window basis. The cooperative societies purchase the birds and sell in the market on a cash-and-carry basis from the farms directly. The members have no problem and in fact the co-operative societies protect the members from the highly fluctuating broiler market.

Each member gets seven days of on-the- job training. They are taken to the farms of the existing producers and allowed to rear the birds for a week under the supervision of an expert veterinarian. The training consists of classroom as well as on-farm practical trainings.

Problems Faced

The key challenges with the activity and the attempt to minimize them are as follows:

a) Low unit size of individual farms: The activity targets people belonging to below poverty line (BPL) categories or just above that. The capacity to invest is limited and hence the unit size of individual members has been fixed to 400 and 500 birds. Individually, the members will not withstand the competition from big farmers as far as the scale is concerned, in respect to input procurement and selling of birds. This has been addressed by collectivizing them into cooperative societies and dealing in the market as a single unit. Going ahead, a complete institutional arrangement has been made to become even bigger. At the state level, the federation of cooperatives functions and at the national level, the National Poultry Development Trust supports the cooperatives and federations **b) Quality input c) Skill level of the producers and d) Price fluctuations**

This model has addressed these by ensuring good quality inputs by moving towards backward integration, like all the cooperatives have now feed supply sources either own or from the federation. Two hatcheries with six lakh chicks capacity are operational. The federation has planned to have its own parent unit within a year, training and capacity building of the producers along with services at the doorsteps of the farmers and delinking production from enterprise.

The other risk is from larger players coming into the market. The cost structure, and efficient deployment of capital along with simple aggregation at very minimum professional cost makes the small-holder model competitive with integrators. Further, as expansion is happening to reach economies of scale, such risks from industrial players get mitigated.

The only potential threat at present is the recurrence of bird flu, which affects the market for a couple of weeks. The focus is to generate enough surplus in good seasons which can be banked with the collectives and can help tide over any such exigencies if the need arises. Moreover, after repeated bouts of bird flu in backyard poultry across the country, the focus shall go towards promoting commercial poultry by all stakeholders of the industry including government agencies.

Risk Mitigation

Apart from the above mentioned risks, there are some more viral and bacterial diseases which considerably affect the farmers. The most common viral diseases which account for sometimes 100 per cent mortality are Newcastle disease, commonly known as Ranikhet disease and IBD (Infectious Bursal Disease) commonly known as Gombora as it was first reported in Gomboro in 1962.

The chances of disease are high in the highly concentrated poultry pockets and big farms. Vaccines have been developed and all the members of the cooperative societies are trained. The schedules for the vaccines, which are administered thrice in three weeks, are meticulously followed by all the members in all the batches. All the societies have deep freezers with proper power back-ups to maintain the cold chain. A person is deputed to maintain and dispatch the vaccines. Every year more than 13,000 batches are taken and outbreak of such diseases has been found in three to five batches which may happen even after taking all the necessary precautions. The members are protected and get Rs 300 even if she loses all the birds. The other bacterial diseases are not as destructive as far as mortality is concerned but the economic loss is very high as the mortality is low but the feed conversion and growth is poor. Therefore, proper management and following medication schedule is very much required. These things are ensured by

- proper training to members and village-level supervisors
- daily farm visits by concerned supervisors and recording the status
- regular farm visits by veterinarians
- weekly supervisor meetings with proper analysis of data and designing course of action

Insurance

The banks provide only 10 per cent as backup insurance on mortality. The chances of disease are high in the highly concentrated poultry pockets and big farms. None of the banks however have provided for insurance against the Newcastle and IBD diseases. The members however are protected and get Rs 300 even if she loses all the birds. In this way, the members are protected against such shocks. This disease has not been reported lately.

Developmental Impact

The most important developmental impact is strengthening of livelihood activities of 5,000 poor women SHG families directly, with an expected incremental cash income of at least Rs 15,000 per annum for the members. Further, this would create opportunities of growth in the small scale poultry sector in the state. Further this would be a boost to the local economy apart from the confidence-building effect wherein or village women from far off villages come up with replicable models for the whole of state or may be for the country as a whole.

Impact on the Environment

Poultry farming is a sustainable means of livelihood, not only in terms of the cash income it provides to the members, but also environmentally. It does no harm to the environment. It only requires a cent of land which is easily available in the village, hence there is no need to cut trees. The litter from the poultry farm works as an organic manure for the agricultural land and increases its productivity. The cash income from the poultry farming reduces migration. The members take care of agriculture and also of the forests in the village.

Status of all Cooperatives in Jharkhand (FY 2009-10)

At present, this is the largest broiler producing unit in the state with an annual production of **6933.62 mt** and annual sales turnover of **Rs 4,208.27 lakh**. This means, the average daily sales is **20 mt**, worth **Rs 15 lakh**. The cooperatives control 90 per cent of the market in the district towns and 20 per cent of the total state market. The members have earned Rs 309.05 lakh during the financial year.

Table 1: Progress so Far

Particulars	FY '03-'04	FY '04-'05	FY '05-'06	FY '06-'07	FY '07-'08	FY '08-'09	FY '09-'10	FY '10-'11
Membership	475	829	1380	2100	2500	3235	3467	3969
Sales (mt)	395.54	810.35	1963.24	2428.11	3015.39	4814.47	5429.3	6933.62
Sales turnover (Rs Lakh)	142.00	299.00	770.57	993.13	1252.79	2688.93	3272.17	4208.27
Members profit (Rs Lakh)	12.11	19.26	71.79	86.81	91.85	250.72	348.38	309.05

Hatchery at Lohardaga and Peterwar

Since this is one of the biggest broiler producing units of eastern India, for supply of input, the cooperatives have to depend on suppliers with lesser

turnover. It has been found that the members of the cooperative societies have to compromise on quality and quantity many a times. After feed, chick is the most important factor. Seeing this, the cooperative society of Lohardaga district has established the state's biggest hatchery which has the capacity to produce three lakh chicks per month. Each member saves at least Rs 2 per chick. The eggs are being purchased from Jabalpur, Hyderabad, Jalandhar and Bangalore. One more hatchery of this capacity has been completed and is operational since May 2011 at Peterwar in Bokaro district, funded by the National Cooperative Development Corporation. The total monthly production of the chicks will be six lakh per month. The hatching eggs are not available in the eastern region and have to be purchased from the southern or northern states of the country. A parent unit for the production of hatching eggs will be a boon for the enterprise on which the livelihood of 5,000 women depend. It is required that the hatchery be backed by a parent farm.

Feed Mill

Almost all the cooperative societies have a feed mixing plant. They procure maize and soyabean de-oiled cakes from the market and 15 per cent concentrate from the federation and prepare the complete feed. The federation is managing a feed mill at Barhi in Hazaribagh district where 15 per cent concentrate (mineral mixture) is prepared and supplied to the cooperative societies. The average daily requirement of the feed to all the cooperatives is more than 50 mt. Another feed mill is under construction at Peterwar for uninterrupted supply of feed to the cooperatives.

The medicines and equipment are purchased collectively, which gives a high bargaining power to the cooperatives. The medicines are purchased from BGM Biologicals, an independent unit managed by the National Small Holder Poultry Development Trust (NSPDT), a national collective of which the federation is a part.

The major consumptions of the products is in the local markets. The federation is planning on retail marketing of the products under their own brand. Retail marketing will begin very soon which will give way to the value chain development and further means of livelihood to the women.

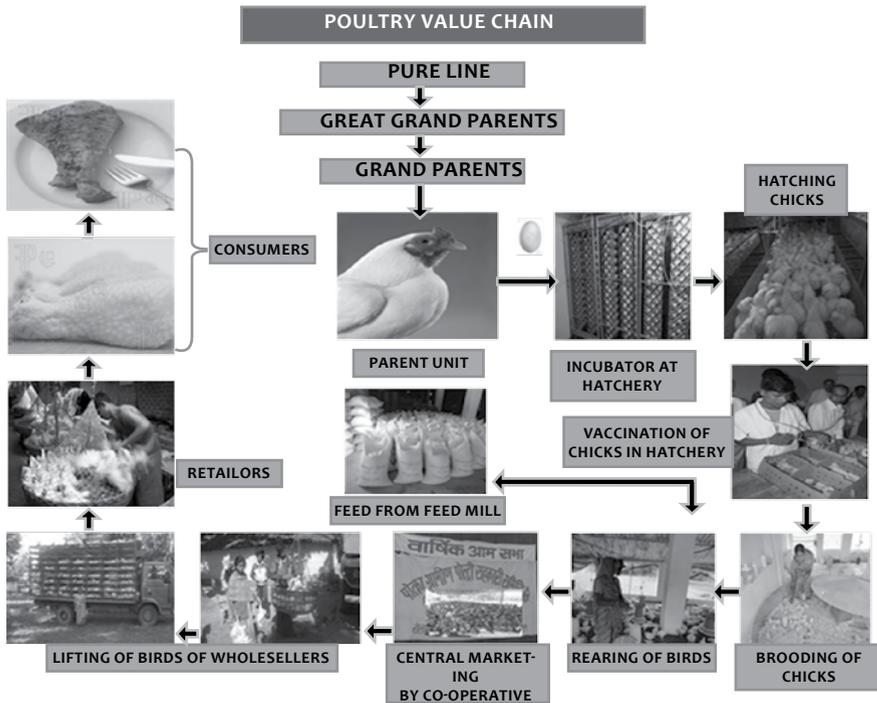
How to Replicate

Marginalised disadvantaged women who wish to adopt the enterprise take membership of the cooperative societies. The cooperative societies then arrange for loans from the bank or subsidies and grant from government agencies for infrastructure and working capital. The association with the cooperative societies helps in easy access to finance. It also helps to adopt the entire setting cost effectively, which a small farmer finds difficult if done alone.

Poultry Value Chain: The Integration of Operations

The poultry market is influenced by large wholesalers and traders, who own the vertical integration. They have large farms supported by a parent unit, hatchery, feed units and other necessary input units. This heavily decreases the cost of production for the large traders with small farmers standing no chance for competition. The complex nature of these vertical integrations has kept the small farmers away from it.

Figure 2: Poultry Value Chain



JWSPFL, with growing number of members is not far behind in vertical integration. It already has two hatcheries functional at Lohardaga and Peterwar with a capacity of six lakh chicks per month. It also has one central feed unit at Barhi, Hazaribagh which supplies feed concentrates to all the cooperatives. The feed concentrates are then utilized by the cooperatives to prepare ready feed in feed-mixing plants operating in every cooperative. The availability of feed and chicks, two most important inputs within the federation, has helped in bringing down the cost of production. Another central feed concentrate processing unit is under construction at Peterwar, which will further help availability of feed concentrates.

JWSPFL plans to notch up the vertical integration to the parent unit, for supply of quality eggs to the hatcheries. In terms of forward linkage,

the federation was restricted to a single window marketing system, where wholesalers lifted birds from the farms. The plan is to extend the linkage to retailers and consumers, captivating the margin between the wholesalers and consumers.

Future Plans

The best practice in the poultry industry is large-scale poultry farming, supported by backward and forward linkages, which include the necessary vertical integration such as parent farm, hatchery etc. It reduces the cost of production, and production on a large scale helps to establish monopoly in the market for better price realisation. The federation is planning on a parent unit for supply of eggs to the two hatcheries. This will further reduce the cost of production as well as ensure a quality check on the eggs which are vital for good quality of chicks. The forward linkage as collective marketing which was restricted to wholeselling is taking a step further to branding and retailing. The product has been branded as *Fresco Chicken*. The retailing is in the initial pilot stage, focusing on a hawkker system for retailing, with customised and home delivery services to the consumers for the promotion of the brand. The next stage includes opening retail counters for the brand. This will usher in a completely new phase for the federation, giving larger benefits to the small producers and an identity in the market.

Financial Support

UPNRM: NABARD has sanctioned support to the poultry activities in the districts of Dumka and Godda under UPNRM (Umbrella Project for Natural Resource Management). It has sanctioned funds for procurement of equipment and working capital for poultry activities involving 700 beneficiaries in Dumka and 300 beneficiaries in Godda. An amount of Rs 142 lakh has been sanctioned as loan and Rs 20 lakh as grant for Dumka and an amount of Rs 66 lakh has been sanctioned as loan and Rs 13 lakh as grant for Godda. In these two districts, the activity was recently initiated and they have financial support from NCDC and the special Swarnajayanti Gram Swarozgar Yojana (SGSY) programme of the Government of India.

TDF (Tribal Development Fund): NABARD has sanctioned support to poultry activities in the districts of Dumka and Godda under Tribal Development Fund Programme for the tribal beneficiaries in the districts. It has sanctioned the fund as grant for 240 schedule tribe beneficiaries in Dumka and 180 schedule tribe beneficiaries in Godda. An amount of Rs 36.96 lakh has been sanctioned as grant for Dumka and an amount of Rs 27.72 lakh has been sanctioned as grant for Godda. The grant has been sanctioned for the construction of sheds.

Table 2: Status of the poultry co-operative societies (1st April 2010 to 31st March 2011)

Sl. No	Name of the co-operative society	District	No. of members	Qty of broiler sold (in metric ton)	Sales (Rs lakh)	Members Profit (Rs lakh)
1	Lohardaga Grameen Poultry Cooperative Society Ltd	Lohardaga	569	908.34	534.49	28.33
2	Senha Grameen Poultry Cooperative Society Ltd	Lohardaga	285	164.34	100.20	5.73
3	Gumla Grameen Poultry Cooperative Society Ltd	Gumla	701	1710.14	1067.78	80.92
4	Potka Grameen Poultry Cooperative Society Ltd	East Singhbhum	317	1065.29	680.61	33.32
5	Torpa Grameen Poultry Cooperative Society Ltd	Khunti	386	529.45	331.20	20.07
6	Petarwar Grameen Poultry Cooperative Society Ltd	Bokaro	648	1570.83	908.85	72.32
7	Chandwara Grameen Poultry Cooperative Society Ltd	Koderma	128	14.47	9.97	0.37
8	Ekta Mahila Kukut Palak Swalambhi Sahkari Samiti Ltd.	Dumka	420	187.43	110.80	4.23
9	Godda Grameen Poultry Cooperative Society Ltd	Godda	105	38.47	26.87	0.81
10	Hazaribagh Mahila Poultry Producer's Company	Hazaribagh	310	744.84	437.69	62.94
11	Patamda Grameen Poultry Cooperative Society Ltd	Patamda	100			
12	Jharkhand Women's S. Poultry Fed. Ltd	Ranchi			666.11	
Total		3969	6933.60	4874.57	309.05	