

Poultry Rearing as an Income-generating Activity in Kesla: An Impact Assessment Study

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An excerpt from an in-depth study of the success, the limitations and the challenges of KPS, an organization that promotes poultry rearing as an alternative livelihood, for the poorest of the poor, who have so far been migrating and working as labour for survival

Kesla, one of the poorest blocks in Madhya Pradesh, has been one of the earliest intervention areas of PRADAN. Rain-fed agriculture and a limited assets base of the tribal population have made the area an endemic food-insecure zone. Limited opportunities for livelihoods generation and income generation have made migration the main income generating activity. PRADAN made interventions with various livelihood themes, to promote food security and the well-being of poor communities living in and around Kesla. Among all these initiatives, poultry rearing has emerged as the single most important activity in this area; this is now being managed independently by Kesla Poultry Samiti (KPS).

KPS has emerged as a model of a people-owned and people-centric organization, the likes of which civil society organizations in the country have continuously tried to promote and establish. At present, KPS has more than 600 owner producers, who have an assured source of stable income. This stable income has led to many positive changes in the life of the poor tribal women in these villages. Although many of these gains are in their early stages of consolidation, the changes in the hitherto-deprived households due to poultry are very visible.

This study primarily aims at reviewing the impact of poultry rearing as an income generating source on the lives of the members of KPS and tries to capture the changes in various areas of their life. Of 250 households, a sample of 30 households that are engaged in poultry rearing for last five years, were selected for the purpose of this study. This study also analyzes the present poultry outlook in the country, the organizational structure of KPS, the opportunities for and handicaps of the poor, to participate and reap gains from poultry.

METHODOLOGY

Key Features of the Impact Assessment Study

The guiding principles for information collection, assessment and analysis for this study were based upon certain premises detailed below. These principles had a major impact on the nature and quality of findings explained later in the study.

1. The evaluation design was participatory in nature and was based on the feedback received by the evaluator on his field visits. The methodology and sampling were determined after discussions with National Resource Centre for Rural Livelihoods and senior PRADAN functionaries.
2. Both quantitative and qualitative measures were used to capture the impact. It was thought that quantitative methods alone cannot capture the richness of information and may result in the omission of many subtle and important changes. It was also thought that, at the same time, the study must have a quantitative information base and data set to supplement the findings generated through qualitative measures.
3. The study also actively involved the assessment of information at the point of its generation. This ensured that the learning from the participants is shared with them and the inclusion of their critical inputs is made possible, to make the findings more refined.
4. The livelihood systems of the poor are dependent upon a large number of variables. The traditional risk-hedging mechanisms orient poor to diversify their livelihood base. The study tried to

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analyze the change in living standards of the poor by examining poultry related initiatives and the changes in the outside environment. The situation becomes even more challenging because the external environment has undergone major changes in recent years due to many pro-poor policy

initiatives by the government such as NREGS, National Rural Health Mission, Total Sanitation Campaign, and the Annapoorna. Antodaya Anna Yojana (AAY).

5. Many qualitative aspects were discussed at various levels. Apart from the household survey, forums such as focused group discussions (FGDs) and in-depth discussions with various beneficiaries were carried out to revalidate the findings.
6. The perceptions of various external stakeholders were incorporated to provide additional information and validate the findings in the study.

POULTRY REARING IN KESLA

Poultry rearing as an income generating activity was introduced in Kesla by PRADAN in the late 1980s. The familiarity of the tribals with traditional bird rearing practices was one of the contributing reasons. Moreover, the villagers were in transition from forest-based livelihood systems to farm-based livelihood systems.

Interventions in dairy and other agri-based activities had not been very successful in the area due to lack of backward and forward linkages. Limited water availability in the region was also a hindrance in rearing large animals. Poultry, on the other hand, was part

Salient Features and Learning from Each Phase		
Phase	Salient Features	Learning
<p>First Phase: 1988–1992</p> <p>Experimentation</p> <p>Introduction of improved breeds in backyard poultry setting; interventions in the market for better price realization; and community mobilization</p>	<ol style="list-style-type: none"> 1. Marketing 2. Cage rearing of cockerels 3. Brooding and rearing done separately 	<ul style="list-style-type: none"> • Little industry interaction; experimentation on one's own • High return on investment but low absolute income fails to excite and bring intensity to the activity • 25–30 birds cage rearing failed miserably
<p>Second phase: 1992–1997</p> <p>Pilot testing and demonstration of broiler farming</p>	<ol style="list-style-type: none"> 1. Broiler rearing on deep litter initiated 2. Brooding and rearing done by the same family 3. Rigorous training 4. Standardization of production prototype 	<ul style="list-style-type: none"> • Adequate financing: Units were underfinanced and required external support to facilitate linkages • Criticality of unit size: Lower unit size did not adequately provide for debt servicing • Absence of factoring financial implications of market volatility and lack of risk mitigation system made the intervention fragile
<p>Third Phase: 1997–2002</p> <p>Scaling up: Expansion, systems settings, institutionalizing producers' cooperatives</p>	<ol style="list-style-type: none"> 1. Rapid expansion 2. Producers organized as cooperatives 3. Interventions in other components of the value chain—marketing, establishment of warehouse cum wholesaling, etc 	<ul style="list-style-type: none"> • System to address market volatility key to success—de-linking of production and enterprise risks • Creating ownership of the enterprise • Creating margins to take care of establishment costs
<p>Fourth Phase: 2002 onwards</p> <p>Prototype development, documentation, developing systems for large-scale marketing, lobbying, setting up projects in new locations</p>	<ol style="list-style-type: none"> 1. Modern retail outlet 2. Feed production 3. Replication by other NGOs, governments and by PRADAN 	<ul style="list-style-type: none"> • Creating a good governance structure, which is able to exercise ownership and control on the operating structure managed by professionals, is a big challenge and takes years to establish • Integration of all the cooperatives through a producer company dedicated to the growth of small-holder poultry farmers helps in building specialized services, enhances autonomy and ownership

of the local livelihood systems, and interventions in this sub-sector were designed to optimize the available skill set. However, it has been a long journey, full of learning, in reaching the present sophistication in operations, structures and processes.

The intervention initially aimed at upgrading backyard poultry to modern poultry. New technologies such as cage-rearing practices, including brooding and balanced feed, were introduced. These activities were new for tribal villagers; therefore, a separate set of villagers were trained to brood the chicks and, thereafter, the brooded chicks were given to the farmers for fixed rearing charges. However, the returns from the farming and subsequent failure to engage with the market did affect the sustainability of the operations.

In 1990–91, a shift was made to cockerel rearing in *pucca* production sheds. Some of the sets were financed by the Integrated Rural Development Programme, IRDP, whereas some were financed by other donors. PRADAN also made a shift to broiler farming in the first half of the nineties. KPS was registered in 1997 and all business operations were formally separated from PRADAN.

The learning from the project over time and the steadfast commitment to poultry as an income generation option led to increasing sophistication in operations; at present, 580 producers are members of KPS, which has achieved an impressive turnover of nearly

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Rs 10 crores this financial year and has also been able to distribute surplus payment to farmers since 2008.

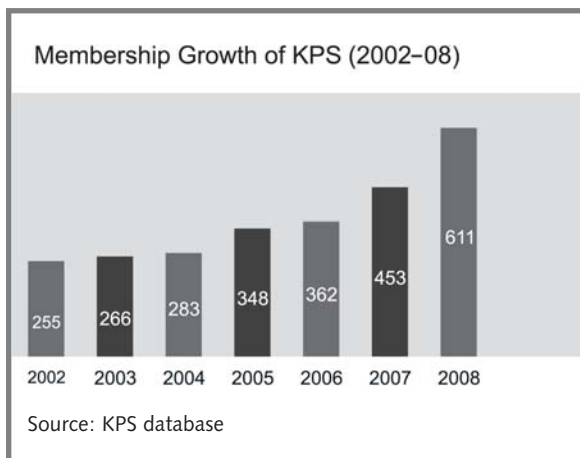
Poultry as an income-generation activity has been fairly successful in securing livelihoods for many of poor families in Kesla. However, it is also necessary to have an overview of the poultry industry in the country, and the opportunities for and threats to small producers.

It is pertinent to examine the sustainability, achievements and impending challenges of poultry rearing.

KPS: PROCESSES AND MANAGEMENT SYSTEMS

KPS was registered under the Societies Act 1860, to promote poultry and other income generating activities in Hoshangabad and Betul districts of Madhya Pradesh. At present, KPS is working in 21 villages in and around Kesla, in Hoshangabad and Betul districts. Poultry was introduced as an income generating activity by PRADAN in the mid-eighties. PRADAN professionals started and strengthened the initial poultry activities.

At present, KPS is an independent legal entity. It is not dependent on PRADAN in theory. It has its own CEO and other support staff and runs its business independently. However, there is a strong informal linkage between PRADAN and KPS even today. This is visible in the membership and the support structures of KPS. The membership, organizational structure and the operational procedures of KPS are detailed below.



MEMBERSHIP

KPS is more or less a closed cooperative society. The society has also decided that the membership of the cooperative will remain confined to Schedule Caste (SC) and Schedule Tribe (ST) families, to safeguard its character as well as safeguard it from the potential threat of the local elite taking it over.

The households and SHGs that wish to take up poultry have to first make an application to Narmada Mahila Sangh, which is a federation of SHGs in the Kesla block. This community structure is also promoted and facilitated by PRADAN. The Sangh checks whether the village is connected with all-weather roads, and whether the applicant is less than 45 and has been disciplined in her/his transactions in the SHGs. When the Sangh is convinced about the willingness and capability of applicant to carry out poultry rearing, it arranges funds from donor agencies or government departments for shed construction, training and security deposits. The federation then forwards the application to KPS for consideration.

On receipt of the application, KPS carries out its own investigation before granting

membership. Once selected by KPS, the new member has to undergo a 45-day residential training programme on poultry rearing. The training covers aspects such as chick management, measuring feed and medicine, prevention of disease and record-keeping.

PRODUCTION SYSTEM

1. Production is completely taken care of by the individual producers.
2. Individual producers are provided day-old chicks (DOC), the feed and medicine (on a need basis) at their doorsteps, for brooding according to the production plan.
3. Producers are also provided sawdust and material for whitewash for pre-rearing management.
4. When the chickens reach a marketable age and size (approximately 35 to 40 days), these are collected by the trader from the producer's doorstep.
5. Monitoring of production is done by a team of supervisors (typically selected from among the villagers).
6. KPS has a CEO, who is the most important functionary and acts as a lynch pin for the various activities of the cooperative. He is assisted by a central supervisor, who monitors the work of other supervisors.
7. Each producer's performance is measured on an efficiency index. The efficiency index is a function of mortality, feed consumed and weight gain of the chick. The supervisor's payment is directly linked to the efficiency of his assigned producers, which, on an average, is around 50 paise per live bird sold. The incentive of the supervisor is also variable and there is a sharp decline in the incentive if the producer fails to achieve a satisfactory score on the efficiency index.

8. The co-operative endeavours to protect the farmer from any external business shock. As a result, the producer is reposed with production responsibility solely, and is assured a fixed minimum return per kilogram of broiler (plus additional payment linked to production efficiency).
9. The cooperative usually pays the surplus it accumulates at the end of the financial year as deferred wage payment. This amount is generally referred to as bonus by the producer members. In this study, therefore, wherever the word 'bonus' is mentioned, it refers to the deferred wage payment to the producer at the end of the year.

The co-operative takes care of procurement and marketing functions, and a team of field supervisors act as a medium for input distribution and collation during delivery to the market.

FINANCIAL SYSTEM

1. The cooperative has an elaborate MIS system that helps it keep track of all transactions and ensures accuracy and transparency in all dealings.
2. All transactions with members are recorded in the system, and an elaborate system of *challans* and counterfoils is used to ensure transparency between the members and the cooperative.
3. The cooperative uses the MIS software, 'Udyog Munshi', which is custom designed to suit the accounting and stock-taking requirements of KPS.
4. KPS has accounts with the State Bank of India (SBI) in Kesla and the Axis Bank in Itarsi. SBI provides a cash credit of Rs 25 lakhs to KPS. Both SBI and Axis Bank regard KPS as a valued customer. The

representatives of both these banks regularly visit KPS.

MARKETING SYSTEM

1. KPS has two dedicated customers—Sahid and Kallu. Whereas Sahid is a supplier in and around Itarsi, Kallu mainly serves the Vidisha market. Sahid is the main customer of KPS and markets roughly 50 per cent of the KPS production.
2. There are many other suppliers, who purchase from KPS as per their needs and supply the Bhopal, Narsinghpur and other markets in the state.
3. All the sales are on cash basis, in which dedicated customers get three days of credit. However, dedicated suppliers also have to settle their accounts at the end of the financial year.
4. The boom in demand for poultry in rural areas has served KPS well. Most of the production is supplied to the nearby rural markets. KPS and the dedicated supplier believe that the rural market has got better potential; even when there are outbreaks of avian flu in different parts of the country, the local rural market is only marginally affected.

HUMAN RESOURCES

A trained and committed human resources (HR) department is necessary for institutional stability and sustainability. KPS has created a cadre of village-based supervisors. In addition, all the support staff of KPS have been locally recruited. At present, KPS has 10 staff on its payroll, and 27 supervisors and other staff, who are paid incentives on the production efficiency achieved by members. The CEO is a veterinary doctor, who is the only non-permanent resident of the area. The CEO now delegates many of his responsibilities and empowers his subordinates; thus,

even during a prolonged absence, the business of KPS runs as usual.

GOVERNANCE SYSTEM

The Board of Governors comprises producer members and two experts. Every village of producers nominates one member to the Board, which is the supreme decision-making body of the KPS. A Board meeting is held on the 10th of every month. The chairperson of the Board usually visits the KPS office once every week and is apprised of the weekly activities by the CEO. The CEO is also responsible to the Board and presents a monthly report to the Board. It may surprise many that SC/ST women are responsible for running a multi-crore business entity. However, women have proved that they can take important decisions easily, once the options and the possible outcomes of decisions are clear to them.

The Board has taken many decisions to discipline erring members, supervisors and other staff. The Board members engage themselves increasingly in the day-to-day functioning of KPS. Recognizing the need for sanitation to check the outbreak of diseases and the subsequent weight loss to the birds, the Board members now form teams and visit every village. The Board members check the sanitation level, educate the producers about its importance and even take action against erring members. However, the capacity building efforts and the leadership training of the Board needs to be stepped up because it will meet more challenging and complex situations in the future as the business of the cooperative continues to grow.

It may be surprising for outsiders to even conceive that SC/ST women are responsible for running a multi-crore business entity. However, it was very clear that women can take important decisions easily, once the options and the possible outcomes of decisions are clear to them.

STRATEGIC RELATIONSHIPS

KPS and other women poultry cooperatives of MP have come together to form Madhya Pradesh Women Poultry Cooperative Limited (MPWPCL), an apex organization of all the poultry cooperatives in the state, which undertakes advocacy works. It also does centralized purchase for medicines and prepares the medical mix to be used in feeds. All the managerial appointments in

the cooperatives are made by the MPWPCL, which also provides strategic leadership and guidance to its constituent cooperatives.

FINANCIAL VIABILITY

KPS has emerged as a strong viable business model. One of the most important features of KPS is hedging the tribal livelihoods against any down risk and uncertainties in the market. Key inputs, veterinary support and market linkages are facilitated by KPS. Farmers have the mandate to rear chicks effectively. Depending upon the efficiency with which the farmer carries out the operation, she is paid. At the end of the financial year, the producer is also paid a share in the surplus of the KPS, as deferred payment.

At first glance, it may seem that KPS has assumed a significant risk, to protect the farmers. However, this model is being adopted by most of the integrators in the country. The benefit of the system is that the farmer is concerned only with production activities and is not encumbered with other details. KPS acts as strong service delivery platform. This is more imperative because the individual costs of accessing the gamut of services will make the enterprise unviable.

Moreover, the collectivization of risks reduces individual risks considerably. This model is most fitted for an enterprise that is rocked from time to time by bird flu outbreak risks.

KPS has been making consistent profit since 2008. The producers have received deferred payment at the end of the year as surplus bonus. KPS has also been strengthening its equity base by seeking contributions from its members. From 2008 onwards, its equity capital has grown to more than Rs 1 crore. Similarly, a bird flu fund, with a deposit of Rs 16.46, lakhs has been created, to meet any contingency arising out of the outbreak. The financial strength of KPS, therefore, is getting more robust every year.

Most of the vendors of KPS are satisfied with the prompt payment from the organization and would like to continue with the services. SBI and Axis Bank also express their satisfaction with the financial health of KPS. The audited estimates of 2008–09 show that

the total payment to farmers has grown to Rs 1.86 crores. This translates to more than Rs 30,000 per annum income per household. The income from poultry alone can lift most of the KPS members out of the official poverty line now. However, the cash surplus in these three years has been used mainly for institutional strengthening. KPS itself is in the process of consolidation; therefore, such actions are necessary to ensure long-term sustainability of the institution. Hence, the net transfers to the households have been much lower.

A philanthropic organization, Dewan Foundation, gave financial assistance of Rs 10 lakhs to KPS; this is used for additional capacity creation by the members. As of now, more than 125 KPS members have taken the loan money to expand their production capacity. The loan repayment rate is 100 per cent, and many members have already repaid their loans in two years. Productive assets that are being created at the household level will

Table 1: Financial Indicators of KPS (2006–7 to 2008–9)

No.	Financial Indicators	2006–7	2007–8	2008–9
1	Total wage payment to producers, including bonus	40,49,514	67,22,129	1,86,50,673
2	Total share capital	2,38,100	4,97,000	1,049,800
3	Bird flu contingency fund	5,98,310	1,179,560	1,646,560
4	Net payment to producers	31,16,204	56,75,969	79,09,673
5	Total sales	3,64,38,701.00	5,36,02,814	9,89,93,628
6	Membership fees	9,400	11,475	12,575
7	Total number of producers	362	453	611
8	Average production per member/annum	1,00,659.39	1,18,328.50	1,62,019.03
9	Average gross payment per producer/annum	11,186.50	14,893.13	30,524.83
10	Average net payment per producer	8,608.29	12,529.73	12,945.45
11	Grower's deposit	18,26,693	19,52,418	14,737,362
12	Capital reserve	28,90,355	2,890,355	2,890,355

lead to increased cash flow. At present, productive assets are being strengthened both at the collective and the household levels, which will yield higher benefits to both, in the coming years.

Poultry rearing has emerged as a viable source of livelihood in Kesla and nearby blocks. This model has been scaled up by PRADAN in other parts of Madhya Pradesh and Jharkhand. It has a positive impact on the lives of its producer members. In this section of the study, the substantiality and the viability of the enterprise will be examined by using the 7-S Mckinsey framework.

ORGANIZATIONAL ANALYSIS OF KPS WITH THE 7-S MODEL

The 7-S Mckinsey model is a holistic tool to measure organizational effectiveness. This tool primarily helps in analyzing how the organization is positioned, to achieve its intended objectives. It also helps to understand how future changes might affect the organization and, hence, how to implement a proposed strategy. An understanding of the organization thus reached can be useful for refinement of processes and systems, leading to the improved performance of the organization.

SHARED VALUES

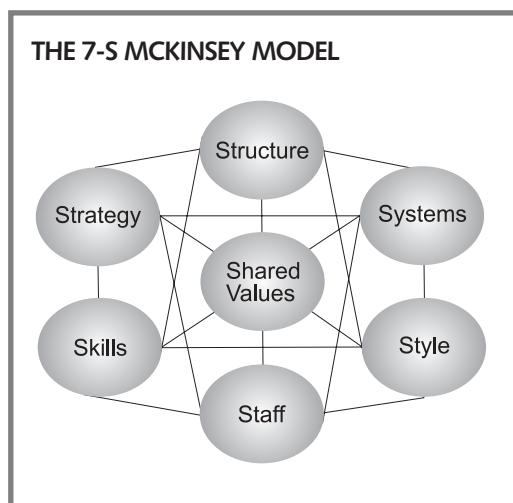
For KPS, the shared value system is fairly developed and owned, both by the functionaries and the producer owners. It is well established that KPS exists for the welfare of its producer members and its main concern is maximizing their monetary and non-monetary benefits.

The benefit of the system is that the farmer is concerned only with production activities and is not encumbered with other details. KPS acts as strong service delivery platform.

KPS itself is established on the humanitarian concerns of caring for needy fellow beings, and the organizational culture is oriented to maximizing the income of the producer members. Transparency in its financial and operational transactions has heavily contributed to the building of trust and faith in the organization. The strong commitment of KPS and PRADAN to the poor is acknowledged by the members. The innovative use of IT, to facilitate transparency, is commendable.

STRATEGY

The strategy of KPS is well in congruence with its shared values. Since 2009 members have contributed Rs 8.12 lakhs from their deferred payments to build an equity base of Rs 10.50 lakhs and a bird flu fund Rs 16.57 lakhs, to meet any contingency. Members have been able to identify that the financial stability of the organization is crucial, in order to protect the interests of members.



By design, KPS can never be a cash surplus organization because most of the operating surplus is distributed among the producer members as their deferred wage payment. The endemic poverty in the area also makes it very difficult to hold back payments from the poor producers. However, even in the face of such hardships, the women have recognized the long-term interests of the organization, and this is reflected in their strategic choices.

KPS itself is established on the humanitarian concerns of caring for needy fellow beings, and the organizational culture is oriented to maximizing the income of the producer members. Even vendors such as Sahid believe that their work is part of a greater whole; he proudly claims that he has never worked for any other poultry producer or group, and will never work for them in the future.

the producers are maintained by the field supervisors and the details are recorded in the computerized MIS system.

KPS makes direct payment to its producers and does not hand over wages and deferred payment to the husbands of the members. Hence, members can decide how to utilize the money, without interference from the male members of their family. These systems are producer- and human-centric, and supplement the

STRUCTURE

KPS is a very small organization and the structure is still evolving. Initially, the CEO of the organization was the central authority, who made all the decisions and who was responsible for the day-to-day functioning. However, in recent years, greater decentralization of authority is taking place. The members are now encouraged to oversee the functioning of the field supervisors and there is greater role clarity among the employees. However, this transition of roles among the members may take some more time to be firmly established. Many leaders of KPS are very clear about their role as owners; however, the same cannot be said of all the producer members.

SYSTEM

KPS functions in a mode of trusteeship and, hence, tries to keep maximum transparency in its operations. As the payment to the producers is made on the basis of their efficiency in rearing and most of the financial risk and working capital is borne by KPS, it is imperative that a detailed transparent system is put in place. All the input transactions with

shared goals of the organization.

STAFF

Most of the staff of the KPS belongs to the same village and socio-economic profile as the members. Hence, the staff can directly connect with the producer and her problems. Most of the supervisors are village-based and are not highly educated. Similarly, the field supervisor and the support staff have limited education. However, most of them are aware of their job responsibilities and are committed to the work. In some cases, unfortunately, the higher income flow to these supervisors has also led to higher liquor consumption by them. This is an aspect in which KPS needs to train and sensitize its field work force.

STYLE

As a human-centric organization, the CEO exhibits supportive leadership traits. There are clear performance indicators of leadership, and payment to the supervisors is made on this basis. Similarly, the CEO takes a lot of effort to educate the member producers about KPS being an institution owned by

SWOT ANALYSIS OF KPS

Strengths

- ♦ Well-developed and localized production support system
- ♦ Benefit of scale
- ♦ Even distribution of risk among producers
- ♦ Trained human resources
- ♦ Horizontal and vertical linkages with other cooperatives
- ♦ Community ownership
- ♦ Modern MIS System
- ♦ Location advantages to the growing rural market
- ♦ Excellent credibility with key stakeholders
- ♦ Proven success in different states

Weaknesses

- ♦ Dependence for DOCs and other key inputs on external suppliers
- ♦ Dependence on a small number of distributors
- ♦ Limited governance ability among member owners
- ♦ Limited penetration in urban markets
- ♦ High exposure of business risk to KPS
- ♦ Limited reach among poorest villages
- ♦ Donor dependency for initial capacity building, working capital and infrastructure creation
- ♦ Illiteracy and fragile assets base of the producers
- ♦ Unfavourable response of financial institutions to organizations owned by the poor
- ♦ Emerging ecological challenges due to declining fuel and water availability

Opportunities

- ♦ Fast growing market for poultry products
- ♦ Growing awareness among government and other donors of poverty concentration among SC/ST and other excluded social groups
- ♦ Possibility of diversification of production base
- ♦ Manure treatment as an additional income source
- ♦ Reducing competition from peri-urban producers
- ♦ Scope for vertical and horizontal growth
- ♦ Possibilities of exports
- ♦ Limited capacity creation by existing big farmers

Threats

- ♦ Possibility of frequent bird flu H1N1 outbreak
- ♦ Growing competition from for-profit private sector integrators
- ♦ Increase in price of key inputs
- ♦ Small producers interest adversely affected by strong industrial poultry lobby
- ♦ Resistance by PETA and other animal rights activists
- ♦ Consumption shift toward vegetarianism
- ♦ Increased threat from imports
- ♦ Government regulations especially related to wet poultry market

them. The CEO also assists the board members in making decisions by explaining about various options; in recent times, board members have encouraged members to take decisions on vital issues concerning the governance of the organization. Additionally, women leaders have great faith in the CEO and respect his advice and suggestions.

SKILL

KPS has evolved into a unique people's organization. Because it was one of the first such people's initiatives in the poultry sector, the learning from it has led to further refinement and adoption of this model in other parts of Madhya Pradesh and country. The processes, systems and management have evolved as per need and, many a time, as per design. The unique working model, which combines the efficiencies of a big integrator and at the same time ensures people's ownership has been fairly successful in assuring an alternative source of livelihood to the poor in and around Kesla block.

One of the main reasons for such a strong value orientation can be attributed to the relatively small size of the organization. Moreover, most of the members of KPS belong to the same socio-economic strata. A predominant majority of them are already involved with the SHG movement and are familiar with PRADAN's ways of functioning. The strong informal relationship between PRADAN and KPS reinforces the value system with which both PRADAN and KPS were established.

KPS has high member centrality. Most of the members of KPS reported that the earnings from poultry rearing constitute up to half the household income.

CENTRALITIES OF KPS

Member centrality refers to the importance of the cooperative in the economic activities of its members. If the members of cooperatives are generating economic activities worth Rs 1,000 and the share of cooperative in

this value creation is only Rs 100 it denotes a low member centrality. Centralities—member, patronage and domain—are, thus, a major factor in judging the relevance, utility and prospects of a cooperative or any producer-owned organization for its members.

KPS has high member centrality. Most of the members of KPS reported that the earnings from poultry rearing constitute up to half the household income. High member centrality also means that members of KPS will remain actively involved in the affairs of KPS because it continues to be their most important source of livelihood.

Patronage centrality on other hand refers to the direct benefits and the activities that are for the benefit of members. For example, if cooperatives create economic surplus worth Rs 1,000 and members receive surplus worth Rs 800, it denotes a high patronage centrality and, thus, the active interest of the organization in the well-being of its members.

Domain centrality refers to the degree of involvement of the cooperative in economic activities, both actual and potential, taking place in the domain of the cooperative.

KPS has high member centrality. It also has the potential for high patronage centrality. However, for many years, because the producers have been contributing a part of

their deferred earnings to strengthen the equity and bird flu fund, the actual payment to the producer is less.

KPS also has the potential for high domain centrality. Maize is the major crop in and around Kesla and also the principal constituent of the poultry feed. The farmers of the area, therefore, can get a ready market for their produce. Similarly, soybean is an important input grown locally. KPS can help in the generation of additional income by assisting in the production of these key inputs. It may also support additional income generation for its members by marketing manure (from bird waste) and diversification in other sources of animal protein.

IMPACT ON THE LIVES OF MEMBERS

KPS was established with the mandate of strengthening the fragile assets-base of the poor, to create additional sources of income. However, over the years, it has had a significant impact on the lives of its producer members. The impact of an additional source of income on poor tribal households and, in particular, female producer members will now be examined in detail.

Thirty households that have been members of KPS for last five years were identified as the treatment group. Similarly, 30 households that, till the time of the study, were not associated with PRADAN-promoted SHGs or KPS were selected as the control

WHY HAVE THE RURAL POOR STAYED AWAY

The tremendous success of poultry development has bypassed the rural poor for the following reasons.

- ♦ **High entry barriers:** Poultry industry is highly organized, complex, competitive and intensely market-oriented. The poor with their socio-economic disadvantages and low skill base cannot enter the sector without outside support or intervention.
- ♦ **Input supply, extension and marketing:** In contrast to the existing situation in which multiple agencies provide services input supply, extension and marketing, poor producers require all these services under one roof.
- ♦ **Access to technology:** Sophisticated technology, when not scaled down, will remain with the more well-to-do farmers. Appropriate technology, which is scalable, improves access in favour of the poor.

group. The control group households were selected from a village where no significant economic activity had been initiated by PRADAN or KPS.

ECONOMIC EMPOWERMENT OF KPS MEMBERS

Kesla is one of the poorest blocks of the country. The limited resource endowment and limited options for livelihoods compound the problem. At best, a majority of the

Table 2: Share of Poultry in Household Expenditure

No.	Share of Poultry	Level
1	Between 50 and 75%	1
2	Between 40 and 50%	21
3	Between 30 and 40%	6
4	Between 20 and 30%	2

villagers have food security for a mere six months. And if the rains fail, the villagers do not have food security for more than three months. The villagers have been dependent on migration and sand filling for their survival. These traditional coping mechanisms too are now under threat due to increasing mechanization.

Discussions with the villagers revealed that survival was difficult for the poor. Locally available coarse grain was the main cereal and *dalia* (a coarse cereal boiled in water) were the main food items. Vegetables were a rarity and, sometimes, villagers had to go to bed on empty stomachs. This situation has improved significantly in the last decade thanks to government food distribution programmes as well as improved job opportunities.

However, the establishment of KPS has been one of the most significant institutional economic activities of this economically underdeveloped region in the last decade.

Poultry has now become the mainstay of the household economy for KPS members. More than 75 per cent of the treatment group respondents covered under the study reported that nearly half their monthly expenditure was directly met by poultry earnings. For a batch size of 300, the respondents reported that an income of Rs 10,000 to 15,000 was earned per annum. This income increased pro rata, with an increase in batch size.

The income from poultry is evenly distributed throughout the year. This distribution made it easier for producers to plan the household

Poultry has now become the mainstay of the household economy for KPS members. More than 75 per cent of the treatment group respondents covered under the study reported that nearly half their monthly expenditure was directly met by poultry earnings.

economy and made them even more credit-worthy. The women said that they could now borrow money from the SHG when in need and repay it.

Similarly, borrowing from the ration shop has also become easier for KPS members because the shopkeepers give them easy credit for their regular consumption needs. FGDs

revealed that whereas many KPS members did not have to pay any interest on credit for the purchase of household rations to the shopkeeper, many of the control group members reported paying interest for this to the shopkeeper.

The table on the next page shows that the net income per household has increased from Rs 9,435 to Rs 15,070 in 2008–9. The actual income per household has more than Rs 35,000 in 2008–9. At present, KPS and its members are generating internal resources for vertical expansion (setting up a satellite hatchery) and a buffer for bird flu losses; hence, the net payment to the households is lower.

The members realize the benefits of poultry rearing. It gives them a chance to generate income by using their slack labour. They are also saved from drudgeries of manual labour and the problems associated with migration.

The data reveal that the producers have realized the usefulness of poultry to their households. In 2006 and 2007, there were 198 producers rearing a batch size of 300. However, most of them have now upgraded their shed capacity and there are only 76

Table 3: Financial Indicators for Producers Rearing Birds for More than Five Years

No.	Financial Indicators	2006–7	2007–8	2008–9
1	Number of active producers	250	250	249
2	Total wage payment including bonus	25,98,830	39,90,012	8,944,538
3	Total bonus payment	8,18,698	13,80,835	63,54,164
4	Deferred payment taken back	2,40,000	2,49,000	51,92,000
5	Net payment to the producers	23,58,830	37,41,012	37,52,538
6	Gross income per producer/annum	10,395.32	15,960.04	35,921.83
7	Net payment to producer/annum	9435.32	14,964.04	15,070.43
8	Producers with a batch size of 300	198	198	76
9	Producers with a batch size of 400	44	44	18
10	Producers with a batch size of 500	3	3	2
11	Producers with a batch size of more than 500	5	5	153

producers now, who have a shed capacity of 300. Similarly, there were only five producers in 2006 and 2007, who reared 500 chicks or more. This number has now gone up to 153. What is more remarkable is that most of the shed construction has been carried out with a loan from KPS. Members have supplemented the costs of shed construction with their labour, use of local resources and any savings they had. This demonstrates the faith the households have in the dependability and viability of the enterprise.

One of the main benefits of the poultry intervention has also been the stabilizing of the household economy. A direct impact has been the visible improvement in the quality of food and nutrition levels for the household. Many households have moved away from using cereals to wheat and rice. The AAY has also significantly increased the availability of food to the villagers.

Families report that vegetables, which were a rarity, have now become a regular feature of meals. Many households claim that they are now in a position to purchase tomatoes at Rs 40 per kg. A few households admitted that, at times, when vegetables are very costly, they are dropped from the regular menu.

The income from poultry has stabilized the household economy. There is great possibility of taking this forward. At present, households with 300 chicks need one more stable source of livelihood to live comfortably. Families that have no loan obligation may be considered to be above the official poverty line. Unfortunately, the rising inflation in the last two years in commodity prices has undone some of the good achievements of KPS.

The size of a family has a strong impact on the economy of a household. Families with

two children, which are primarily dependent on poultry, reported that they could meet their basic food and nutrition needs comfortably. However, families with more than six members needed an additional source of income other than poultry, to meet their household needs.

Clearly, if a family had an assured source of income other than poultry, whether a regular daily wage job or irrigated land, the household reported purchase of some durable assets in the last few years. However, if a household was dependent only on poultry and had an irregular source of wage labour, assets creation at the household level was not evident.

This is quite natural because most of the income was used for meeting household expenditure. The above table shows that the quantum of deferred payments, also referred to as bonus by the producers, has not been very significant. The highest average deferred payment to members, which was paid in 2008–9, was Rs 4,667.32.

Many members now have added additional shed capacity and have paid back most of the loan amount. Hence, although assets creation is not evident at the consumption level, it is

One of the most important outcomes of having a regular source of income is the impact on migration. Only one of more than hundred poultry producers interviewed admitted to migrating for agriculture-related work outside their village.

significant at the level of creation of productive assets. These productive assets are expected to yield better cash flow in the coming years.

The amount of savings was the main difference between the control and treatment groups. Whereas control group members hardly had any savings, (the highest savings reported was Rs 3,000), the women in treatment group had savings of Rs 3,000 to Rs 7,000 per household. In many cases, these savings were deposited with KPS as working capital deposit.

The Narmada Mahila Sangh executives said that they realized that the SHGs in which poultry producers were members were more vibrant than other SHGs. A regular source of money made transactions in SHG more frequent and disciplined.

MIGRATION

One of the most important outcomes of having a regular source of income is the impact on migration. Only one of more than hundred poultry producers interviewed admitted to migrating for agriculture-related work outside their village. Most of the women admitted that poultry as an alternative source of income has permitted them to focus

Table 4: Migration by Women

No.	Migration for Work by Women in a Year	KPS Members	Others
1	60 days to 80 days	0	0
2	40 days to 60 days	0	16
3	20 days to 40 days	1	14
4	Never	29	0

more on their children and their well-being. In many cases, the male members of the family still migrate to augment the household income.

However, both women and the men agreed that such opportunities for work are increasingly declining. One KPS member admitted to migrating for work during the *rabi* season. Many men still continue to augment the household income although the number of days they migrate for is declining. Whereas the field supervisors of the KPS believed that this was because male members were averse to working, many of the KPS members said it was due to declining opportunities.

On the other hand, all the women in the control group still have to migrate to augment the household income. The women and their families form groups and migrate to other parts of the district and to nearby districts. One of the major achievements of KPS has been in reducing migration; this has a positive effect on the well-being of children and also saves the women from the hardships associated with migration.

EDUCATION

One of the most pleasant outcomes of the study is capturing the growing awareness

about the importance of education in rural communities. In many villages, women are not only encouraging children to complete school but also encouraging them to study further. Many households, both from the treatment and control groups, have even been sending their wards to hostels in district headquarters and supporting their education. Women in both groups said that they believe education to be very important for the better future of their children. More than 90 per cent of the children in both the groups are completing their primary education. However, the importance of having a regular source of income was evident to the members in the treatment group.

The children of KPS members have an average schooling of more than eight years. In the control group, on an average, the period for schooling was five years. Many women in the control group reported that the unavailability of schools in the village and the distance of 3–5 km for the next level of schooling were the main reasons for children dropping out of school. Children of many KPS producers, on the other hand, who have been facing similar situations have continued their schooling. The dropout rate of the children of non-members was higher than the children of members of the treatment group, who asserted that they

Table 5: Deferred Payment Bonus to the 250 Old Producers (2006–7 to 2008–9)

No.	Bonus indicators	2006–7	2007–8	2008–9
1	Number of active producers	250	250	249
2	Total bonus payment	8,18,698	13,80,835	63,54,164
3	Deferred payment taken back	2,40,000	2,49,000	51,92,000
4	Net bonus payment to the producers	5,78,698	11,31,835	11,62,164
5	Gross bonus payment	3,274.92	5,523.34	35,921.83
6	Net bonus payment	2,314.79	4527.34	4,667.32

would support the education of their children as long as they showed interest in pursuing their studies.

In fact, economic hardship was not a handicap for the children of KPS producers. Most of the women who had children in the age group of 5 to 18 were quite aware of the importance of education. The major reason for dropouts in these cases was failure in the examination, particularly in the matriculation board examinations. There was no significant difference in the educational achievement of boys and girls; they attend school without any form of discrimination.

One of the major reasons for dropouts in the case of the control group is also economic. In spite of a free education system, women said that nearly Rs 1,000 to 1,500 per annum is spent on each child for stationery and examination fees to the school. The quality of education is an important issue that forces children to drop out of the education system. Children are usually promoted on the basis of internal assessment. However, it also results in a large number of failures in the external Board examinations, which are perceived to be stricter and devoid of unfair means.

Even among the KPS members whose children have crossed the school-going age before 2003, widespread illiteracy was observed, with the average schooling years being hardly more than five years. Hence, this emphasis on education has been a new phenomenon in this region and the growing awareness about the importance of education

In many villages, women are not only encouraging children to complete school but also encouraging them to study further. The dropout rate of the children of non-members was higher than the children of members of the treatment group, who asserted that they would support the education of their children as long as they showed interest in pursuing their studies.

may have contributed to this trend. Equally significant is the fact that KPS earnings have made it possible for women to keep their wards in school longer.

CONCLUSIONS AND THE WAY AHEAD

KPS has emerged as a sustainable model for livelihood generation for poor people in the tribal areas of Madhya Pradesh. Since 2008, the model has been replicated at five other deprived areas of Madhya Pradesh, and in Jharkhand,

where 11 cooperatives have been set up. The operations in Jharkhand have also emerged as the largest commercial poultry rearing operations in eastern India. At present, these cooperatives have a total membership of 5,200. The total turnover of these cooperatives in 2008–9 was Rs 62 crores.

Models like KPS are highly relevant for the poor. Most of the poor in India, and particularly the SCs and STs, have negligible ownership of land. Similarly, most of the tribal households own rain-fed land, which gets increasingly degenerated. A small poultry farm hardly requires an area of 400 to 500 sq ft and, hence, may support livelihoods. Hence, unlike other agriculture-based livelihood initiatives, it does not require significant land assets-base and can be a good source of livelihood for excluded communities. The KPS model is highly relevant for the BIMARU states, where a large number of SCs and STs is concentrated. The proper implementation of pro-poor schemes such as NREGA will encourage poultry as a viable livelihood.

Limited urbanization in these states is also a blessing in disguise for the small producers. As urbanization increases, these states will be the major consumption centres in the country. As more and more cities get urbanized, the land value in the peri-urban areas of bigger cities will also increase and the economic viability of traditional farms near big cities will decline. Further, increasing urbanization will also spur the domestic demand for poultry.

The success of KPS as a model is also due to the pioneering work done by PRADAN in Kesla. Although KPS is an independent organization, strong linkages still exist among PRADAN, Narmada Mahila Sangh and KPS. The value-based organizational structure and culture can be largely attributed to the presence of PRADAN-promoted SHGs.

The above data clearly show the benefits that a cooperative like KPS adds to the community. The integrators pay a wage to the producers, who rear chicks for them. The rate varies from region to region. In the southern states, the producers earn up to Rs 1.7 per kg as rearing charges. In certain western and eastern parts of the country, integrators pay up to Rs 3 per kg as the rearing charges.

KPS has consistently paid its producers more than the rates paid by the integrators. For 2008–9, the rate differential is Rs 6.95 per kg between that offered by KPS and the integrators. Even if a higher wage charge of

Models like KPS are highly relevant for the poor. Most of the poor in India, and particularly the SCs and STs, have negligible ownership of land. A small poultry farm hardly requires an area of 400 to 500 sq ft and, hence, may support livelihoods. Hence, unlike other agriculture-based livelihood initiatives, it does not require significant land assets-base and can be a good source of livelihood for the excluded communities.

Rs 3 per kg paid by the integrators is taken into account, there is significant gap of Rs 5.65 per kg. With 21 lakh kg production, this differential adds up to more than Rs 1.20 crores. This is also the net value addition, which KPS brings to the community by its existence. The per producer net value addition is also approximately Rs 20,000. This is the premium of ownership.

A very interesting fact is revealed on analysis. The average gross income per household has been

Rs 35,921 as mentioned in the Table 5. However, on an average, every producer has reared approximately 3,500 kg of live birds in 2008–9. At a wage rate of Rs 3 per kg, they might have earned Rs 10,500 had they been associated with an integrator. This amount is nearly one-third of what they have earned now through KPS. This additional value creation is generated by facilitating the rearing and marketing of birds. As KPS moves up the value chain, this value creation will improve significantly.

Once the entry barriers are removed and the small producer is part of a larger collective, his income potential increases many folds. The KPS model will be highly relevant for the poor households, where every additional rupee is important.

KPS has been able to achieve the same benefits of scale as an integrator. However, the integrators have not been able to outsource and decentralize bird rearing in Madhya Pradesh. KPS has been able to do so

by virtue of its strong social mobilization and a sense of ownership among producer members.

The important lesson from KPS is that, by design, it assumes significant business risk upon itself as producers mainly concentrate on production, and all arrangements for rearing, DOCs, feed and veterinary care are managed by the collective. In any case of leakage or lack of commitment of any producer, the collective suffers as a whole.

For example, feed is supplied by KPS; any leakage by the producer selling in the market will benefit the producer but will be a loss to the collective. Hence, any scale up would be preferable in areas where strong social mobilization is already in place and potential members are strongly oriented to the values of collective.

The increasing food inflation in recent years has wiped out many benefits that KPS had assured to its members. However, members with a batch size of 300 and an alternative source of income are comfortably placed. The analysis also shows that a batch size of 300, an annual income of Rs 15,000 may be assured to the producers.

Now that KPS has attained sufficient maturity in its operations, new members should be inducted with a shed capacity of 500. At present estimates, this will ensure a monthly income of Rs 3,000 per month, which will be sufficient to meet their basic needs. However, selection of a member should be done keeping in mind her familiarity with PRADAN, the SHG norms and a commitment and orientation to the values of collective.

The most important reason for the success of KPS has been a strong and dynamic

leadership, especially in last few years. The success of KPS demonstrates the change that a qualified and committed leadership can bring to the lives of the poor. This will be a challenge that other organizations wishing to replicate the model will have to meet.

KPS will need to grow both horizontally and vertically. Aggressive efforts need to be made to generate resources for more sheds at the producer level, satellite hatcheries, and parent and grandparent farms. There is a limited scope for improving efficiency at the producers end. More benefits will occur to producers if KPS can attain the advantages of scale and increase its own control on the value chain. Moving up the value chain to own a hatchery, and parent and grandparent farm has the potential to double the income of the individual producer with the same batch size.

The model is getting replicated in other states and areas, and a national-level body may be set up, which undertakes advocacy and knowledge dissemination. Similarly, expansion of the model needs to be done by keeping the core value system intact. Strong social mobilization must precede the scaling up. At the same time, a new leadership may also be developed to take this initiative forward. Attracting and retaining qualified and committed manpower will be the biggest challenge that KPS will face in the near future.

CASE STUDY: MANDIPURA

Mandipura is a small tribal village, situated at a distance of 2 km from the Hosanagabad–Nagpur national highway. The village is connected by an all-weather road. All the 33 families in the village belong to STs. This village came into being in 1986–87 after the government decided to build new houses for

STs on a vacant plot of land, under the Indira Awas Yojna (IAY). The residents of Mandipura moved in from adjoining villages when they were sanctioned their land by the government.

Belabai recounted that they used to earn Rs 5 per truck if they were lucky. In periods of limited demand for sand, many a time their earnings dropped to Rs 2 or 3 per truck.

Belabai and her family used to live in the nearby Chowkipura village. Her family moved to Mandipura in 1986. Belabai remembers the old days and recounts the difficulties they faced. Her family had 2 acres of land, which hardly provided them any food security. The family's primary means of income was sand filling in the nearby river. Her husband Balchand and she used to go to the river early in the morning. Many men and women from nearby areas also congregated there because sand filling was their main source of livelihood. Belabai recounted that they used to earn Rs 5 per truck if they were lucky. In periods of limited demand for sand, many a time their earnings dropped to Rs 2 or 3 per truck. After a day of hard work, between husband and wife they hardly earned Rs 30–40 on a good day. Most of this money was spent on daily rations. Every evening, provisions were bought for the night and the next morning. Often, the family had to go to bed on an empty stomach.

Migration was other source of income. The whole family would migrate to Hoshangabad and other nearby places for employment. The family migrated during the harvest of *rabi* wheat and soybean, and were dependent on labour contractors for work. There were limited opportunities for wage employment in the area and survival itself was a challenge. Belabai vividly remembers when Ms Madhu Khetan, an executive from PRADAN, met her more than ten years ago and persuaded her

to form an SHG. Belabai said she was very reluctant and apprehensive. In the past, many NGOs had come and fled with their hard-earned money. However, after much persuasion, she and ten other women of the village formed an SHG and started saving Rs 10 per month. Their association with PRADAN, and later with the Narmada Mahila Sangh, continues to this day.

Belabai has a large family. She and Balchand have six children—four girls and two boys. Belabai explored different sources of income to meet the household expenditure and took up poultry on the suggestion of PRADAN executives. A shed for 300 day-old chicks (DOC) was built, with the support of government schemes, and since then Belabai has been regularly rearing chicks in her backyard. Balchand started working as a field supervisor with the Kesla Poultry Samiti (KPS) a few years later and his income supplements the household income.

Balchand bought a motorcycle last year, with a loan from the SHG members. Belabai is encouraging her children to study. Her eldest daughter completed her schooling from a reputed Navodaya Vidyalaya. She lives in a hostel in Hoshangabad and is a regular student in the local degree college. Belabai's other children are in school, with the youngest child in Class III.

Belabai also served on the governing board of KPS for five years. She believes that KPS and poultry rearing have brought about a sea change in the life of her family members. Caring for her children left her with little time; increasing her shed capacity, therefore, was a major challenge. However, she is determined

Table 6: Gross and Net Payment to Belabai

Year	Batch Size	Total Wage Payment Including Bonus (in Rs)	Deferred Payment Taken Back (in Rs)	Net Payment to Belabai (in Rs)	Average Monthly Income (in Rs)
2006-7	300	12,785	1,000	11,785	982.08
2007-8	300	19,121	1,000	18,121	1510.08
2008-9	300	39,478	22,000	17,478	1456.50

Table 7: Net Family Income of Belabai

Year	Net Payment to Belabai (in Rs)	Net Production Incentive Earned by Balchand (in Rs)	Total Family Income (in Rs)	Average Monthly Income (in Rs)
2006-7	300	12,785	1,000	11,785
2007-8	300	19,121	1,000	18,121
2008-9	300	39,478	22,000	17,478

to do so this year. She will be adding an additional capacity of 400 birds and many more dreams to her household this year.

WOMEN'S EMPOWERMENT

One of the most important outcomes of the poultry intervention has been the growing awareness and the ability of women to make informed decisions on the issues concerning their lives. Most of the women said that their income has helped them to have a greater say in household affairs and decisions. This does not mean that disputes do not arise among members of a household.

The women opined that most married couples in the world have differences over one issue or other. But more importantly, income distribution within KPS is a woman's decision. Many women also said that the men of the family considered this to be their independent income and did not interfere in

their decisions on how to utilize it. In KPS, it is mandatory that payments to members are made directly to them and not to the male members of their families.

On the issue of social awareness, members of KPS have their own views and express them freely. Members of KPS are also members of PRADAN-promoted SHGs. Therefore, this empowerment may also be attributed to the good work done by PRADAN professionals in these villages over last two decades. The growing awareness among the KPS members has also led to some interesting outcomes.

One of the most important outcomes of the intervention has been the capacity of women to assume greater responsibility in planning and strengthening their family assets base. This has happened because women feel more confident about taking greater risks. More than 90 per cent of the members want to

expand their shed capacity and increase production output. The only reason for the reported non expansion was the increased household responsibilities because of the presence of small children or the lack of a helping hand. Over 125 women have taken a loan of more than Rs 10 lakhs from KPS and are repaying it regularly.

In contrast, most of the women outside of KPS were apprehensive of taking loans. The average loan size was Rs 1,000 only. The main reason was the fear that they would be unable to repay the loan, leading them into a debt trap. One major impact of KPS has been that in the treatment group the women have the confidence to take major risks and have the capacity to manage credit.

CASE STUDY: BURRA

Burra is a small village situated at a distance of nearly 8 km from Sukhtawa in Hoshangabad, Madhya Pradesh. The village has poor connectivity and a *kuccha* road connects the village to the outside world. The signs of impoverishment are visible all around the village. There are nearly 30 households in the village. The village is divided into two hamlets. Most of the houses are *kuchha* and the living conditions are abysmal.

The village has been formed because the villagers were displaced by the creation of a firing range nearby. In the absence of any

One of the most important outcomes of the intervention has been the capacity of women to assume greater responsibility in planning and strengthening their family assets base.

legal documents, villagers claimed that they had received no land compensation even many years after their displacement. Most of the families depend primarily upon migration and livestock rearing for survival. Migration with the entire family is the

norm and most of the families hardly have food security of more than three months. However, villagers reported that they receive subsidized ration regularly under the Antodaya scheme, which is a great relief for them.

The quality of life indicators are below satisfaction. At first glance, it is clear that the villagers do not have enough clothing or sanitation facilities. Most of the children had dropped out of school and were engaged in income generating activities.

Burra is a challenging village for PRADAN professionals in the Kesla team. Their efforts to form SHGs had failed twice in Burra. PRADAN executives attributed it to the very low income base of the poor and frequent migration by households.

A very distressing case was reported during the study. One of the respondents said that she had been married recently but had hardly been able to spend any time with her husband. On probing, it was learnt that her husband had borrowed Rs 10,000 for his

Table 8: Work Availability in NREGA

No.	Work Availed of in NREGS	KPS Members	Others
1	Between 70 to 100 days	0	0
2	Between 40 to 70 days	0	0
3	Between 20 to 40 days	0	0
4	Between 0 to 20 days	16	20

marriage and had been working since then with a businessman in Itarsi, in lieu of repayment of his debt. It was more or less a case of bonded labour and she had met her husband on rare occasions over the previous six months. This case highlights the acute problem in the area. PRADAN and KPS executives are working to meet the challenge to improve the living conditions in this village.

ENTITLEMENT TO GOVERNMENT SCHEMES

Most of the community members in the treatment and the control groups were aware of the major flagship government programmes. Both the control and the treatment groups expressed satisfaction with the entitlements under the government schemes and made use of them. Some doubts were raised about the quality of services offered.

ENTITLEMENT TO NREGS

Access to NREGS remains one of the challenges in these villages. Most of the respondents in both the control and the treatment groups were registered under the scheme and had job cards. There was also a demand from households for NREGS work. But very few respondents reported having worked under the scheme for more than 10 days. Not a single household worked more than 20 days in 2009 under NREGS.

Most of women respondents in both the groups expressed the view that if they get work up to 100 days as guaranteed in the Act, they can meet their household needs without many problems. Most of them

Most of the women respondents in both the groups expressed the view that if they get work up to 100 days as guaranteed in the Act, they can meet their household needs without many problems.

had applied for and received job cards. However, three ladies in the treatment group, who had additional sources of income, had not applied for job cards. The arrest of a *panchayat* head in Kesla in a case of embezzlement in NREGS has, however, certainly affected progress in the scheme.

HEALTH

KPS members were aware of the health issues that households faced. In general, people are dependent on government hospitals for medical aid. ICDS centres and *anganwadi sevikas* are the first point of contact. People were also aware about the role of Asha workers. Members in the treatment and the control groups were aware about the benefits of institutional delivery and facilitating government initiatives.

CHALLENGES IN SCALING UP

The increasing unavailability of fuel wood and water were identified as two most important challenges by KPS members. The producers were worried about the rapidly decreasing forest cover and the subsequent increasing cost of the fuel wood. Similarly, access to water was identified as a major challenge in managing production and expansion of sheds. The major source of water in these villages is hand pumps. Once the chicks grow, the increasing need to supply water and the limited hand pumps take up substantial time of women. In summer, the problem is more acute. These two constraints are the biggest challenges that KPS needs to address in the near future.