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Platforms for Citizen Engagement: The Foundation of Democracy

RAKSHITA SWAMY

Building, nurturing and strengthening platforms that help citizens access information and hold functionaries accountable for their roles not only serve as an articulation of altruism but also facilitate greater transparency and accountability in public programmes

In recent times, whenever there is any talk about pro-poor development agendas, there is also a mention of ensuring transparency and accountability in the implementation of programmes. Whether it is in the context of policy objectives, programme guidelines, project plans or log frames, the intent of delivering transparency and accountability in governance is widely prevalent.

What do we mean by 'ensuring transparency and accountability in the implementation of public programmes'? Broadly, the intent of delivering transparency and accountability can be shown through the provision of platforms that facilitate citizens, as individuals and as collectives, to participate in governance. Transparency and accountability are an imperative component for any implementation structure's interaction with its beneficiaries, whether the former is represented by the State or by an NGO. It includes a bundle of measures that allows a pro-active disclosure of information and helps citizens to hold implementation structures accountable for their duties.

There are platforms built to serve this purpose and provide for mechanisms by which citizens:

- a) Are informed pro-actively about details of the programmes being rolled out in their name and for their benefit such as entitlements, time-frame, reasonably expected outputs and outcomes, who is responsible for what, budgets and expenditure, decision-making processes and procedures for grievance redressal
- b) Participate in the decision-making process viz-a-vis. planning, identifying beneficiaries and dividing resources
- c) Review the performance of the implementation authorities and hold the latter accountable for the mandate they are supposed to deliver
- d) Petition authorities on any grievances they may have in accessing services or benefits due to them

Experiments with embedding such platforms within the development practice in India have thrown up invaluable lessons. The accumulated knowledge gained from rolling out practices such as social audits, mandatory pro-active disclosures, use of IT platforms to allow transparency and accountability (citizens' forums for grievance redressal and tools for community monitoring within India) are a reflection of the democratic engagement in service delivery that few developing countries can boast of. However, experience has also taught us that for the above interventions to go beyond just a methodology and to actually serve as a means to empower citizens, certain fundamental conditions need to be fulfilled.

Information is power and; therefore, its disclosure causes a rebalancing in the power equation between those who govern and those who are governed

ACCESS TO INFORMATION

Information is power and; therefore, its disclosure causes a rebalancing in the power equation between those who govern and those who are governed. It is only when people have access to what is recorded

as fact that they are able to either accept it or confront it, on an equal basis, while engaging with the structures of power. Without equal information being available between the implementation structure and the beneficiaries, the perception of truth, as nurtured by those with access to records, is what prevails. Local realities will not be granted a chance for legitimacy.

In the context of development interventions, the provision of information should be just as necessary as the provision of the tangible 'benefit' that the intervention seeks to make available. People have a right to know the details of decisions, outputs and expenditure incurred in their name as much as they have a right to access the service being provided. Not sharing this information with them on an institutionalized basis is a reflection of the implementation authorities' lack of confidence in the beneficiaries' ability to understand it, and more importantly, corroborate it, thereby betraying a lack of trust in the foundation of democracy. The existence of legislation such as the Right to Information Act is an indication of the need for sharing information with the citizens as a matter of duty.

Development practice within India has tried, over the years, to share with the citizens, on a pro-active basis, information related to public programmes. For example, the Management

Information System (MIS) under the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) lists details of all the works, workers and payments that take place under the programme on a real-time basis. It serves as a digital repository that provides citizens with both the disaggregated and the cumulative details of each worker employed under the programme and each rupee spent on the programme. End-to-end digitisation is not a new concept for public administration.

However, what sets the MGNREGS MIS apart is that all the processes and consequent expenditure are in the public domain, as backed by law. By sharing information, available traditionally only with the administrators, proactively with the public, MIS helps ordinary citizens to monitor the implementation of the programme and, thereby, gives teeth to the concept of constant public vigilance of public programmes. In doing so, MIS has also set standards for other rural development programmes to dedicate costs and attention to building similar online platforms for the mandatory disclosure of information.

However, even the presence of an expansive MIS has not been sufficient for the rural MGNREGA workers to use this information and demand accountability from the State. In this context, the need for moving from a MIS to a Janta Information System has gained momentum. The use of 'wall paintings' to disclose information for scrutiny by the beneficiaries is an effort in that direction.

Wall paintings refer to the painting of official records in physical places easily accessible by the community. Information displayed are details of the beneficiaries, the entitlements

The practice of using wall paintings as a means of communication demonstrates the relevance of sharing information in a language and mode that is understood by citizens

availed of by them, the expenditure incurred, the budgets sanctioned, the works that have taken place, etc.

Wall paintings have been used to disclose a range of information such as the waiting list of Indira Awaas Yojana (IAY) beneficiaries, the list of

Below Poverty Line (BPL) card families, the list of pensioners and the amount of pension received by them, the rates and amounts of procurement of material used in the village, the list of households covered under a specific grant/project and the benefits received from it. The impact of sharing this information in local spaces where it can be read by citizens (who may or may not be the very same beneficiaries enlisted) has been tremendous. There is an almost instantaneous identification of ghost beneficiaries, of the incorrect inclusion of certain beneficiaries by excluding the more eligible beneficiaries, and of inflated rates and estimates. As an assessment method of what is going right and what is going wrong, based on people's feedback, wall paintings are far more accurate than months of 'independent evaluation'.

The practice of using wall paintings as a means of communication demonstrates the relevance of sharing information in a language and mode that is understood by citizens. It has also established the importance of identifying particular modes of information that are most relevant to the people and disclosing these in a simple manner so that the disclosure of information can have the desired effect. Mandatory disclosure of information should not be a mere requirement to be ticked off on a checklist for good governance. It is meant to show a culture of sensitivity and respect towards the people, who the development interventions are meant to serve.

Energy needs to be directed towards providing only information that is useful for people to assess and monitor the quality of implementation. For example, a disclosure of the amount of money spent in the entire State tells the villagers nothing. It is just a figure in the annual report of an agency. A disaggregated disclosure as per official records, however, of the list of women farmers, who have received benefits in the form of input seeds and trainings to become sustainable farmers in the village they reside in empowers the villagers tremendously. They are able to assess the veracity, the actual impact and success of the official data. Both forms of disclosure can be termed as compliance with transparency. But if the intent is to truly be transparent for the sake of greater equity in the distribution of information, the latter is what needs to be pursued.

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project reviews. Evidently, these are ineffective. Social audits serve as an institutionalized process through which citizens monitor the expenditure and the impact of public spending.

Through the platform of social audits, citizens are able to play a role in the on-going processes of an activity/project in each of its stages, that is, from planning to implementation, monitoring and evaluation. Systematic citizen participation through social audits ensures that public spending is designed and implemented in a manner that is most suited to the local conditions and reflects the priorities and preferences of those affected by it. Most importantly, however, social audits serve as a platform by which people participate in the decision-making of the programme on an on-going basis.

OPPORTUNITY FOR HEARING AND A PLATFORM FOR PARTICIPATION

One of the most important things that citizens in rural areas, trying to access services and goods under government schemes or NGO projects, need is a mechanism to register their grievances and a platform where they can be heard in a systematic manner. One of the most often-heard phrases in conversations with people who are seeking to claim basic services is, “*Kitne baar shikayat kiya hai, hamaara kaun sunta hai?* (We’ve complained so many times; who listens to our complaints?)”

The need for a platform, where people have the assurance that they can speak without fear and that their voice counts, is pivotal. Social audits, or *Jan Sunwais*, have been conducted for years in India for a range of matters such as MGNREGA, rural housing, old age pension, rural electrification, election spending and

PRESENCE OF COLLECTIVE PLATFORMS

Whatever be the mechanism for helping citizens access information and hold functionaries accountable for their roles, the need for these mechanisms to be accessible to collectives is essential. The consumption of information in the public domain by collectives of citizens adds much more strength than if this information is provided to a citizen one-on-one. The dynamism of people processing the information provided, clarifying the multiple interpretations of the information amongst themselves and arriving at a conclusion on the degree of veracity of the information in a collective forum is significantly more powerful. The disclosure of this information in a public forum, where it is accessible to groups of people together is also a great disincentive for wrong-doers or potential wrong-doers, for fear of the societal consequence of his or her wrong-doing surfacing.

Going beyond just the access of information, collective platforms also ensure fairness, and as far as possible, correctness of the information being presented, shared and registered in processes such as social audits and public hearings. Individuals find it difficult to fake details of their status of entitlement in the village vis-a-vis various schemes within a collective forum such as a social audit or a *gram sabha*. This may not be the case if the exchange of information was only between two individuals.

The strength of the social audit process rests on the collective ratification of the disclosure of findings arising from comparing official records with actual realities because it is put to the test of the wisdom of a larger collective. Similarly, the beneficiaries are able to muster the courage to confront the implementation structure with allegations of incorrect reporting of facts or denial of services much more strongly in a public forum, backed by a larger collective than they could ever have done in an individual exchange with the same.

However, the efficacy of this platform is definitely a function of how neutral the beneficiaries perceive it to be. An inclusive, transparent and neutral collective platform is the best way of ensuring that decisions are not only fair but also appear to be fair.

The presence of frameworks that promote transparency and accountability, embedded within the programmes is relevant and necessary. It is not an exercise that involves only a post-facto assessment of what went wrong. It is a framework that gives citizens their right to be involved in deciding how the interventions must be shaped, and to monitor

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whether these are in line with the intended objectives. Such platforms, which allow for the dissemination of information and receipt of feedback on any irregularities in the implementation, are intrinsic to the sustenance of a programme.

In the context of the need for 'evidence-based policy making', institutionalized platforms help further social accountability. These prove to be an important means of compelling the authorities responsible for implementing programmes, to acknowledge what is going wrong because it is an exercise rooted in evidence and not in mere accusations. These platforms, therefore, provide an opportunity to build systems through which shortcomings in service-delivery may be identified. The presentation of evidence makes it imperative for the government or other agencies, implementing programmes and projects, take corrective action.

This introduces and enhances the virtue of citizenship in a democracy, important because development can never be seen as divorced from the notion of citizenship. The building, nurturing and strengthening of platforms is fundamental to democracy. It not only serves as an articulation of altruism but also facilitates greater transparency and accountability in public programmes. The presence of mechanisms for transparency and public accountability is not a concept that can be ticked off in the list of things to be in place for the package of good governance. It has far greater potential. It enables democratic development and imbues a culture of civic equity that cannot be withdrawn once introduced.

Savings: A Neglected Need of the Poor

NITYANANDA DHAL

Recognizing the importance of inculcating the habit of saving, and experimenting with a simple and effective way of doing so within SHGs and the individual homes seems to have struck a chord of resonance in the village women, who are now beginning to exercise autonomy and choice in how much and where they want to save

More than half the world's adults, according to estimates, do not have a bank account. Nearly three out of four adults in developing and middle-income countries, and about 90 per cent of the 2.5 billion people, living on less than \$2 per day in the developing world, do not have a bank account (Financial Access Initiative and McKinsey & Co. 2009). Indeed, the Global Financial Inclusion Database, Demirguc-Kunt and Klapper (2012) shows that account penetration is nearly universal in high-income economies but only 41 per cent of the adults in developing economies report having an account at a formal financial institution. Furthermore, there are large differences in account ownership in developing economies. Whereas 46 per cent of the men have formal accounts, only 37 per cent of the women have accounts, and adults in the richest quintile are more than twice as likely as those in the poorest quintile to have a formal account.

In one of the seminal papers, Burgess and Pande (2005) show that access to formal finance in rural India has had a positive effect on poverty alleviation and economic growth. However, there exists a striking difference between the large take-up rate and the low use of formal bank accounts by the rural poor. It is estimated that 67.3 per cent of the accounts are lying dormant. Demirguc-Kunt and Klapper (2012) find that women are less likely to have bank accounts, due to which they have less experience in using formal banking facilities.

The characterization of savings mobilization as the 'forgotten half of rural finance' in 1986 largely rings true even today. In part, this is due to an ongoing misperception that the poor do not, and cannot, save—despite a long and global history of community-based savings groups and other informal savings systems, as well as the findings from a substantial amount of research. In part, regulations against mobilizing deposits from non-members continue to restrict micro-finance institutions throughout much of the developing world, and the availability of subsidised credit and grants from donors reduces the compulsion for mobilization of savings. These factors have led to a notable historical shift from thrift (micro-savings) as the foundation of finance for the poor in the early 20th century, to debt (micro-credit) in the early 21st century.

The criticality of financial services for the economically poorer and the disadvantaged community, including women, hardly needs to be emphasized. However, 'micro-credit services' have received disproportionately high attention and effort from development thinkers and actors across the world. The Bank Rakyat Indonesia's (BRI) micro-finance system is the world's largest and the most profitable micro-finance network today. As on August 2004, BRI had 30 million savers whereas its active borrowers were only 3.1 million. The enormous number of savers (close to 10 times the number of borrowers) shows its importance. A similar experience was observed when the Grameen Bank in Bangladesh introduced savings accounts, with the launch of its Grameen-II model. Also, the huge chit-fund scam in India in the recent past clearly shows how poor households in our country are desperately looking for savings-services, which neither our huge banking network nor

Often, the poorer people are compelled to resort to the use of many risky, inappropriate and exploitative mechanisms to save because this has continued to remain critical for them.

widespread Self Help Group (SHG) mechanism has been able to address.

The SHG initiative, the single largest micro-finance movement in India, with its huge outreach, has reached communities across the country. SHGs are often known as Savings and Credit groups (S&C groups). However, these groups have hardly served the savings-services needs of its members. Regular token saving by the members (Rs 10–50 per month, per member) has only served as a normative requirement of the group, to maintain the membership. On the other hand, mainstream financial institutions such as banks, post-offices and multi-purpose co-operative societies have grossly failed to provide these services to the economically poor families for many obvious reasons. As a result, the savings-services needs of poorer households remain largely unaddressed by any formal system. Often, the poorer people are compelled to resort to the use of many risky, inappropriate and exploitative mechanisms to save because this has continued to remain critical for them.

If you ask any development practitioner, whether savings are important in the business of poverty reduction, they would all say yes. Ask, however, if it is urgent to engage with—I doubt anyone will say yes. Any initiative around savings falls in the domain of important but not urgent quadrant and, thus, continues to receive a lukewarm response from any of our pro-active, short-term or long-term strategic engagement.

I do remember when one LIC agent chased me for an insurance scheme. And I resorted to giving him many excuses and avoided him for many months before I gave in. But 12 years down the line, my respect for him has gone

up tremendously. I find that the reluctantly initiated scheme has helped me build my savings into a respectable sum today. Think of a situation where you do not have any savings and you find a regular and reasonably well-paying job. Not only would you have access to multiple credit cards, you would also seek opportunities to save, right? I assume that no sensible person would say that he or she does not need to save. This hints at the uniqueness of savings, which cannot be addressed by any quality access to credit or access to reliable income flow.

Families with mutually supporting, hard-working and financially disciplined members usually prosper irrespective of their level of poverty. The reverse is also equally true—if members are extravagant, very few families prosper, irrespective of their income levels. Although this is true in most of families, poorer families experience this widely. Financial discipline may not always make you prosper in life, but the absence of this could become a critical constraint towards prosperity. In addition to financial discipline, mutual co-operation among family members and hardworking members are two additional important aspects that help a family to prosper. There exists a very high degree of co-existence among these factors. One may assume that these factors or components strengthen each other. Moreover, smooth access to financial services reduces mental stress and intra-household conflicts to a large extent and motivates members to work hard.

While arguing this, I am not in any way advocating that income enhancement has no bearing on economic prosperity; only that the degree of utility of income enhancement

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greatly depends on the above factors. Further, the presence of these factors also influences the scope of income enhancement by increasing the investment portfolio, risk taking ability, etc. More specifically, financial discipline is necessary but may not be sufficient to address poverty issues. Nevertheless, financial discipline reduces vulnerability, irrespective of the nature of financial shocks, and

helps maximize the utility of whatever small income a person may have.

Savings are not the direct function of the level of income, especially as expenses are likely to increase with the increase in income. Therefore, with an enhanced income, effort should also be made to foster a habit of saving and thus to reduce unnecessary expenses. Whereas credit services have been considered important for addressing poverty issues, savings services are no less an empowering intervention. On the contrary, access to easy credit many times leads to high indebtedness and insecurity. Therefore, the co-existence of a savings habit along with opportunities to access credit can potentially address the above needs.

Savings products have an intrinsic value for consumers, institutions and policy makers. Access to savings services allows consumers to protect their money from the many demands for it from family and friends, to keep a reserve on smooth consumption, to monitor funds and be confident about safety, and to invest in new activities once the savings are built up. Financial institutions also benefit from mobilizing savings because the deposits can constitute a significant and relatively inexpensive source of funds to finance lending and other financial services. Additionally, savings services can help institutions build a relationship with their

customers, possibly leading to a greater demand for credit and other products, such as insurance and payment services.

For a poor woman, it is always a hard decision to make about what to purchase and what not to purchase on a day. Not having food to eat is painful and this forces her to sell her meagre assets at throwaway prices, sacrifice her dignity and borrow from her exploiters. For this reason, many poor people prefer to cut down on some of their current consumption and gain some surety that they will not have to face these extreme situations. If a family had Rs 100 per day to spend and it puts aside Rs 10, the utility loss is much less than if they were to face a future situation where they have no money to live on but the Rs 10 they saved. This is precisely why the poor do save, irrespective of their situation.

The need for poor households to reduce their vulnerability can limit their ability to pursue strategies for the economic and social improvement of household members. They suffer from insecurity, anxiety and fear, which have an impact on their behaviour. Practices such as savings can make people feel more secure and can foster their capacity to take the small risks necessary to improve their livelihoods. Vulnerability results from the interplay of two key components: (1) hazards and stresses, and (2) buffers. The poor are especially vulnerable because they face a higher risk of the former while lacking sufficient access to the latter. Therefore, for poorer households, savings can potentially reduce the impact of vulnerability by way of generating buffers.

Assets serve as a fall-back and thus help in venturing into risky propositions. For example,

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a farmer has the option of investing in a new cropping practice, which has a 50 per cent chance of getting five times higher productivity and five per cent chance of total failure. Failure would mean that the family would have no food security for about four months.

This would not be a venture that the family would take up unless there was some back-up support, even if the new venture were to offer a very high productivity proposition.

According to the late economist John Nash (recipient of the Nobel Memorial Prize in Economic Sciences in 1994) and his 'Theory of Nash Equilibrium', the bargaining power of a person depends on his fall-back positioning. This holds true whether you are actually bargaining with somebody else or you are weighing multiple choices or even when you are in a decision-making process. Savings, as a financial asset, improves a person's fall-back position and, thus, helps in taking better decisions.

Studies have revealed that hospitalization has resulted in a poverty trap for many people in India. Often, a delay in treatment aggravates the health situation and leads to huge expenses, which in turn leads to asset losses and finally results in poverty. Savings can help tackle this issue to a large extent.

Credit serving is a forced process to minimize expenditure; savings inculcate the habit. Moreover, the habit of savings enhances confidence or trust in self-discipline. Nobody ventures into buying a home or creating any other asset for that matter, with zero savings in the bank. Every bank demands at least a 15–25 per cent personal investment when sanctioning the remaining amount. This way banks check the savings habit or the savings capability of a client.

For poor rural households, a loan service is very uncertain, in terms of timeliness, affordability of interest rates and repayment schedule and, more importantly, in access to the required amount. Often, these families find the choice between availing of the opportunity to invest or meeting household urgencies challenging. A family may not have access to credit when the opportunity or the requirement

arises. In a rural setting, a part payment from savings usually works because a buyer can then easily convince the seller that she or he can honour the repayment.

Guided by the belief that a safe place to save allows the poor manage their money better and thereby improve their lives, many governments, aid organizations and donors have begun to develop policies and programmes to promote broad access to savings services. Several governments have made financial inclusion a policy priority. In India, 35 per cent of adults (and 26 per cent of women) had a bank account in the previous decade. To achieve greater financial inclusion, the Reserve Bank of India (RBI) introduced the Business Correspondents (BCs) Model in 2006. The Model allows banks to hire BCs as intermediaries, to provide financial and banking services on their behalf.

Our honourable Prime Minister, Mr. Narendra Modi in his first Independence Day address to the nation, emphasized the need to provide a formal bank account to all adult citizens and he launched the social programme called the 'Pradhan Mantri Jan Dhan Yojana' (PMJDY). PMJDY seeks to provide universal access to basic banking services by 2018. Besides bank accounts, the scheme plans to provide debit cards, overdraft, credit and insurance facilities,

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and also allow account-holders to receive government transfers through banks. Under the RBI-spearheaded financial inclusion programme, banks opened about six crore basic banking accounts in the fiscal year 2014; under the Jan Dhan Yojana, banks opened more than 10 crore accounts within six months after the scheme was launched. However, some studies say that about 70–75 per cent of these

accounts do not have any money in them. Further, about 30 per cent of these accounts are duplicate accounts. It would be a next-to-impossible task to rectify these. (<http://www.firstpost.com/business/banking-poor-rbi-submits-despite-doubts-modis-jan-dhan-scheme-2028423.html>)

Although individuals are reluctant to save in any formal system, they become motivated when their friends or neighbours invest in savings arrangements. Studies show the positive impact of belonging to a financial group on savings. Peer-pressure and herd behaviour have been emphasized as important explanations because these provide the discipline to offset self-control problems. Rotating Savings and Credit Associations (ROSCA) may serve as a commitment device. Some ROSCA participants say you cannot save alone (Gugerty, Mary Kay 2003). These associations may help save by providing pressure to put aside money regularly (Ardener, S. and Burman, S. 1995). If my neighbours were saving regularly, it would spur my desire to save. A savings group can be seen as a coordination device. (Debraj Ray in the article 'Aspirations, poverty, and economic change' from the book *Understanding Poverty*)

Financial inclusion means much more than opening accounts. The mere provision of

bank accounts may not be sufficient, and extra guidance will be required not only to make these accounts become functional and address various savings needs but also make them reach out to the poorest section and women in remote places, far away from formal banking institutions. The intervention intends to investigate whether, and if so how, the most widespread form of informal financial groups for women, namely SHGs, can serve to foster individual savings in formal bank accounts and thus provide a bridge between women and banks.

PERSONAL EXPERIENCE

My conviction about savings has developed from my own life experience. I belong to a small rural village in Odisha where most families, including ours, struggle to make a living. When I look closely at the families in my village and also in the villages I now work in, I find that some families have improved on the financial front whereas some have become worse. Financial discipline (the practice of saving) is one important factor helping these families to prosper gradually. In my own family, I have experienced that small savings have been rewarded in many ways.

Let me take the example of Markanad, who used to work in my home when I was a child. Instead of taking her wages every month, she preferred to keep them with my father. She was apprehensive that it would be difficult for her to save because she had various financial compulsions. She usually did not take the easy route of using her savings when in need. She preferred to work an extra hour and sacrifice her comfort or happiness. She also needed to protect her savings from the demands of her family members (children and drunkard husband) and in-disciplined relatives. At times, when there was an illness in the family or when the school fees had to be paid, she could

not avoid or delay utilising the money she had saved. The savings instrument, thus, should provide both these needs. A poor family usually requires both—a certain degree of liquidity as well as fixity of their savings. It also needs a variety of savings products such as a Savings Bank Account, a Recurring Deposit Account and a Fixed Deposit Account.

CURRENT LIMITATIONS OF SHGS

Following are some of the reasons that members do not save as much as they could in the SHGs.

- ◆ Unequal savings demand complex accounting, which often leads to conflicts; thus, equal savings are promoted.
- ◆ Lowest Common Savings (LCS) is preferred even though the poorest member can save much more if this LCS were not imposed.
- ◆ Any risk associated with misappropriation or non-repayment of the group-fund lies with all the group members. When the savings or stakes on a group-fund are not equal, the risk also varies accordingly, and the effort to take both preventive as well as curative measures may possibly vary. The risk also increases with the size of the group-fund because managing increased volumes of finance becomes difficult for members. Thus, after the savings reach a certain level, saving more is a riskier proposition, especially when all the members do not save at an equal level.
- ◆ Often, higher savings are locked in a bank or with members as loan-outstanding and, thus, are difficult to withdraw from, in times of need, because pre-scheduling withdrawals is not usually possible.
- ◆ Difficult to keep money aside till the date and time of the scheduled meeting.

- ◆ Unequal savings often result in power dynamics in the group, affecting governance.

KEY REALITIES OF POOR RURAL FAMILIES RELATED TO SAVINGS SERVICES

1. **Nature of cash flow:** Cash inflow for poor people has very distinct characteristics. It is usually frequent but at the same time irregular, uncertain and in small amounts from different sources. It is very difficult to hold these inflows and accumulate them because people need to spend it for their various immediate needs, many of them unexpected.
 2. **Key aspects of savings:** Security, liquidity and returns are usually considered to be the factors that determine the quality of any savings product. The poor look for a very high degree of security, a mix of both liquidity requirement and something that will protect them from avoidable consumption or expenses. However, they hardly look for any lucrative returns. In fact, they sometimes even agree to pay for suitable savings opportunities.
 3. **Limitations of current financial institutions:** The current formal financial systems are usually distantly placed and, therefore, the cost per transaction (in terms of travel time and fare), often becomes unaffordable for the poor. Further, their affordable savings amount is much below the minimum transaction volume of banks, thus making this service unviable.
- ◆ There is a need for a 24 x 7 service system to keep aside a portion of the small, but frequent cash inflows and protect them from easy access by self as well as by others, including children and husband.
 - ◆ As the amount increases, the money needs to be protected at a formal place (not in an SHG). Handling money (managing savings or loans) needs a certain degree of managerial competency, which the members usually do not have. It becomes a riskier proposition to keep funds with SHGs and, therefore, these need to be maintained in a formal system.
 - ◆ Small amounts need to be accumulated until they become a sizeable amount, ready for transaction with a formal financial institution. This amount may vary from Rs 100 to Rs 1,000, depending on the minimum transaction amount required by banks and on the cost of the transaction, including the opportunity costs of time spent and the actual cost incurred to go to the bank.
 - ◆ It is important to inculcate a habit of savings, forgo pressing needs to spend, accumulate small savings so that they become viable to transact with formal institutions such as banks. It requires considerable time and patience and is highly susceptible to individual problems. In addition, supporting systems, peer-pressure and peer-motivation are necessary to sustain the effort.

DESIGN CONSIDERATIONS

The following are the key considerations for designing a model to better fit the realities of the poorer families in remote areas.

THE MODEL

This is an SHG-based initiative. All the members of an SHG keep individual savings boxes in their homes. These boxes (piggy banks) have a special provision of one-way currency entry

facility. The boxes are locked and the keys are kept in their group box. Members insert coins and currency notes into their individual boxes as per their own convenience (any time, any amount). Individuals are encouraged to open savings bank accounts in their local banks or post offices in their own name. Intermittently (quarterly or half yearly), these individual boxes are brought and opened by respective members in the group meeting, using the keys kept in the group box. The members count their own savings and take a call on whether to save the whole or a part of it in their savings account in their SHG or in the banks. This system runs parallel to their earlier, regular savings and credit transactions in their groups. Some changes have been made to this basic approach by certain groups.

INITIAL EXPERIENCE (ONE-YEAR PERIOD)

This model has been experimented with, with about 500 women SHG members spread over 45 SHG groups in Keonjhar district of Odisha by the PRADAN team. In August 2012, the team made a savings product initiative in some of the SHGs, where each individual was provided with a box. These boxes had a one-way opening so that any currency could be put into the box but could not be accessed without opening the box. These boxes were to be kept at home and the keys were kept in a group box to restrict access to this fund. The boxes could only be opened in the group meeting, if the members needed to spend a part of their savings.



SHG members in Patna block, Keonjhar district, worshipping their individual savings boxes and SHG members in K-Nuagaon block, Kandhamal district, checking their savings in a group meeting

Table 1: Impact of Individual Savings Initiative (August 2012 to August 2013)

Name of the Village	Baliapasi	Sar-aspasi	Chem-ana	Brunga-rajpasi	Total	Average
No. of families covered	125	32	132	74	363	
Balance savings in individual box after some withdrawals as on August 2013 (Rs)	68,074.5	10,300	63,139	53,864.5	1,95,378	538
Amount withdrawn from the individual savings box by members to meet their requirements (Rs) from August 2012 to August 2013	1,59,870	43,600	2,04,050	46,370	4,53,890	1,687
No. of members who withdrew from their individual boxes between August 2012 and August 2013	97	28	109	35	269	74%
Net annual savings in the SHGs in previous one year period, that is, August 2011 to August 2012 (Rs)	81,891	14,741	1,05,501	42,322	2,44,455	673
Net additional savings (Rs) in the SHG during one-year assessment period from August 2012 to August 2013 (Rs)	1,13,476	6,801	43,643	34,404	1,98,324	546
New accounts opened in banks, LIC, etc.	23	3	62	5	93	26%
Amount saved in new accounts in banks, LIC, etc. (Rs)	32,610	10,300	1,09,656	5,500	1,58,066	1,700
Total net savings accumulated during the last one-year period (in individual box, SHG, banks/LIC, etc.) excluding withdrawals (Rs)	2,14,161	27,401	2,16,438	93,769	5,51,768	1,520
Total savings mobilized from August 2012 to August 2013 (Rs)	3,74,031	71,001	4,20,488	1,40,139	10,05,658	2,770

As per the plan, the women SHG members kept these boxes in their homes and the keys in the group box. The impact of this initiative was assessed after one year.

The members who participated in this initiative are highly satisfied with this intervention. They have been able to increase their savings amount by about three to five times roughly. A number of requests has been received from nearby SHG groups, to initiate this intervention in their groups as well. We are in the process of making an assessment of this intervention so that we can expand it, with modifications if required, to all the other groups.

Table 1 reveals that this system has become very effective in addressing the savings needs of members. Members savings in their respective groups did not drop significantly (in 2011–12, it was Rs 673; and during the intervention year 2012–13, it was Rs 546) by the introduction of the individual savings box.

The average savings per member in 2012–13 has been Rs 2,770, (considering both savings in own box and group box, excluding withdrawals). So, roughly, there has been a 400 per cent increase in savings. Interestingly, members have accessed their individual savings for various requirements, which was as high as the average amount of Rs 1,687 and this facility has been availed of by 74 per cent of the members. This shows that this system has acted as a Savings Bank account for these members. Nearly, 26 per cent of the members have opened a formal Savings Bank account in the area. The overall annual savings has increased from Rs 538 to Rs 1,520 in one year. Almost all the members were excited by this initiative. Many new members from nearer villages have been approaching us to begin this initiative in their groups as well.

EXPERIENCES AROUND MODIFICATIONS TO THE ORIGINAL MODEL

This basic approach of mobilizing savings through all-time accessible individual boxes has been adopted, with some variations, to address some other concerns. In remote and low literacy areas such as Banspal block of Keonjhar district and Lajigarh Block of Kalahandi district, Odisha, most of the SHGs depend on external male accountants. Because of the limited number of accountants, the timings of the meeting, the attendance percentage at the meetings, the time spent on non-financial discussions and the quality of the accounts are all affected. The teams in those areas, therefore, have tried to use this individual savings box arrangement to address these issues.

In one arrangement, members were asked to have regular weekly meetings. However, the savings and interest repayment and the detailed financial transactions are done once in a month. In the other three meetings, members talk about other non-financial issues. However, loan disbursement is allowed in all meetings and is recorded on a rough sheet. Attendance is taken regularly. Members are encouraged to use their individual box to keep their savings, including the cash meant for interest and loan repayment (which they would otherwise have deposited in the group meeting).

Members then bring their individual boxes to the group meeting dedicated for financial transactions. Each of them opens their individual box and makes deposits in the group, as per the requirement (savings, interest payment, loan repayment, etc.). In some groups, they deposit all the money in their boxes and, in some groups, the balance amount is kept in their boxes. Whenever all the balance in the

box is deposited in the group, intermittently the members withdraw money to deposit it in their individual savings accounts in banks. In some cases, members take their own decision about when and how much to deposit in their individual accounts in the bank or the post office. Both the approaches have their own implications. Privacy and independence around savings is largely affected here.

This approach was suitable for addressing the prime concerns articulated earlier. However, in the absence of a regular financial transaction group meeting, the initiative loses its intensity and slowly the meeting frequency as well as the attendance percentage at the meetings decreased. However, well-designed discussions and supportive monitoring and mobilization can address these drawbacks. These initiatives need to be explored and experienced in earnest so that a significant time can be saved without affecting financial services needs.

POTENTIAL LIMITATIONS

Amidst these positive outcomes, some questions and apprehensions remain. If group savings come down, it would affect the size of the group fund. When this happens, the credit serving potential and, therefore, the relevance of the SHG may gradually reduce. Although the experience in Keonjhar shows that the reduction was minimal (average individual savings in the group reduced from Rs 673 to Rs 546), this may increase. Some also point out that having the key with the group restricts the independence of the individual to use her savings. Some have an apprehension that counting in the group may affect the secrecy that some members may prefer to have.

The arrangement also points at the loss of interest for the period that the savings are locked in the box. Further, the question that arises is how much does the practice really

shape the savings habit and does it contribute towards the development of financial discipline of the member herself as well as in her family. Both the advantages as well as potential disadvantages need to be weighed critically and necessary changes made to the approach, to suit the context better and optimize the benefit for women SHG members.

CONCLUDING NOTE

The women's excitement towards this initiative is visible. Some say that their children have started practising savings in their small box. Some say their family members and relatives (husband, daughter/son, in-laws) are happily contributing to save more. Interestingly, after the initiation, there was hardly any external facilitation, and almost all the members are continuing to practice saving. Many neighbouring SHG members have started adopting it, with minimal support from some SHG leaders. Many other teams in PRADAN such as Thakurmunda, Balliguda and Rayagada have started similar initiatives and have shared some positive feedback.

It is heartening to see that wherever the idea has been shared (in Odisha as well as in Jharkhand), everybody has found it very useful and many have asked for support to start one in their area. The fact that the dropout and dis-adoption rates are minimal, and it is getting replicated with minimal external support, is proof that the initiative seems to be addressing the savings services need of women SHG members, to some extent.

There is need for a systematic assessment so that we can design the programme better. From a promoter's point of view, it is very promising because it demands very little energy and time, and minimal financial investment from the outside. It can very well be done through a self-replicating mechanism, to cover almost

all the families. In the long run, it can instil the much-needed financial discipline (instrumental for addressing poverty), not only among the members but also amongst their families and others in the area.

Members will also gradually pick up financial skills. In addition to orientation, they will also pick up the know-how related to financial services and will be able to collaborate with financial institutions, to collectively make the movement towards prosperity. However, some sort of well-conceived financial education and partnership with financial institutions can take this initiative to a potentially new high.

SCOPE

As articulated above, various steps are being taken by the government to address these savings services needs of the poor rural households; these, however, remain largely unsuccessful in meeting the real purpose. With the clear mandate of financial inclusion by National Rural Livelihoods Mission (NRLM), it should take the savings agenda with equal seriousness and intensity as is done for credit. It should systematically conduct financial literacy programmes regarding savings and pro-

actively promote and facilitate bank linkages around savings, which can later be expanded to insurance and remittance services.

As proved by BRI in Indonesia and Grameen Bank in Bangladesh, banks should look at this more as a business opportunity to expand their client base, and mobilize more and more deposits. The ongoing mass financial inclusion drives such as the Jan Dhan Yojana and the BC model of RBI can link with individual box savings innovation, to address the potential limitations such as minimal transactions (dead accounts), small savings, etc. SHGs or VOs (Village Organisations) can act as BCs for the banks. Additional incentives such as a lucrative interest rates or matching savings, distribution of specially designed savings box and locks, etc., can be introduced to give the much-needed push to these initiatives. This can also potentially address the risk and high cost that poor and illiterate households usually face when accessing various informal systems, including fraud market players. The vast postal network in India, with its high rural penetration, can collaborate with SHG networks, to address the savings services need of rural communities and can add to its survivability.

Examination Day: Passed with Flying Colours!

DISHA MEHTA

Working closely with women at the grass roots, helping them gain the confidence to find their voice, blurring the divisive lines of caste and religion, and uniting them to work towards their dreams of living vibrant and dignified lives is a reality we can work towards

The sun was about to reach its peak in the sky and the mercury was on a constant rise. I was visiting Namatanr, a part of Bareria village of Baghmundi block, Purulia. Bareria is a small, crowded village growing rice twice in a year. The village is a mélange of all sorts of people—from people who own a lodge in town to people who are struggling to earn their daily bread. It has the usual drunkards, who often created chaos, and it has people, who work hard in the fields and brick kilns, all for 100 days of work.

I cursed the bumpy and dirty roads and the open drainage so close to the houses. The children were playing barefoot on the roads where grey water flowed like a stream. I made a note in my head to bring this up in the meeting. It was going to be one of the usual meetings with the landless women of the village and my head was filled with the tasks I had to finish before calling it a day.

The *Didis*, as we called the women, began to arrive soon, and they gathered and sat forming a circle. As I opened my diary and wrote the date—9th February—I realized that I was into the sixth month of my Development Apprenticeship. The training, so far, had already been somewhat of a life-changing event. This organization had given me one year to gain an understanding of and to familiarize myself with rural life. I realized that, in the process, I am also being able to explore and connect with myself.

In the last six months, with the constant support of my field guide and other executives of the team, I had changed. These months had been an incubation period and my only job was to learn and make mistakes and experiment and improve. After six months of gathering knowledge, I realized that I had started to enjoy the experimentation. Time had really flown by.

As I reflected upon these last few months, little did I know what was in store for me that day!

The assembled women approached me with the *alochana* (discussion topic) for that meeting. They were concerned about how to avail of money for emergency purposes such as a pregnancy or the monsoon when they need extra cash the most. The male members of the family had control over the money they earned, and the women had no say in how it was to be spent. They knew well that having cash at home was asking for trouble because, at any time, the men could take it to buy liquor.

To my delight, the women themselves came up with an idea. They planned on saving a handful of rice from their kitchens every day, in a separate container.

"Taka ta or, kintu ranna gharer dhaan er upore aamar adhikaar (The money is his but I have rights on the grain in the kitchen)."

They could sell the rice and save the money for the future or sell the rice in an emergency situation. I felt very happy and proud. Seeing them take cognisance of their situation and come up with solutions meant a lot to me. The change that we were trying to bring about was really on its way. The wheels had started to roll.

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After the discussion ended, members of Namatanr Adivasi Mahila Swanirbhar Dal, Asha Mahila Swanirbhar Dal and the Maa Durga Swanirbhar Dal began to walk in. There was a contained excitement in their manner and a gleam in their eyes as they came up to me. They had something they wanted to

share.

Jeetni Lohar from Asha Mahila Swanirbhar Dal spoke up: *"Didi*, it has been quite some time that we have been learning. We think that it is time for an exam, time for us to test how much we have learned." This took me by surprise.

"What kind of an exam?" I asked.

They continued, "We were thinking of hosting a stage event in our village, where we will invite everyone. And we, along with the ladies of other SHGs, will go on stage and talk in public. We will give our own introduction."

This was a huge thing coming from them because these were the same women, who used to be extremely shy. In fact, I recalled the times when they were so shy that, even to talk to me, they would cover their faces with their saree. And all this was so until a couple of weeks back.

They wanted to take up this challenge to fight off their fears and shyness. They wanted to come out of the shadow.

I asked them, *"Eita kore ki hobe? Keno korte chao eita?* (What will happen if you do this? Why do you want to do it?)"

"Lojja katanor jonnyo, bhoer katanor jonno. Aamader mone onek kichu aache, onek kichu bolar aache kintu ushraate pari na, lajja laage.

(To overcome our shyness, to overcome our fears. We have a lot of things to say but we cannot speak because we feel shy.)"

Next, they asked me for my help. They wanted me to help them arrange for the *mancho* (stage), the microphones and the speakers. I wanted to help and was about to say yes, when something crossed my mind and I stopped.

"I think I should not help you. I think that because it is your fear, it would be best if you were to take it up as a challenge and manage things independently."

"*Tomader ke swanirbhar hote hobe, aamar upor nirbhar nei.* (You have to become independent and not be dependent on me.)"

After an initial wave of hesitation, they decided to go for it. I was happy and admittedly a little anxious; they were very excited. This was the first time they were going to do something like this in their lives.

I had not seen this coming. And that too, so soon! I had felt that their self-confidence had been growing but had not foreseen that they would take such a big step. I was amazed. When I asked them about how they were planning to go about everything, they seemed to be pretty confident with their plan of action.

"*Aamra ekta mancha toiri korbo tetul talaee, sobai ke nimantran korbo, graamer lok, tomar office'r lok ke mic aana korabo* (We will prepare a stage beneath the tamarind tree, invite everyone from the village and your office, and they will bring a microphone too.)"

"*Kintu jaano ei sob korar jonne prochur taka dorkar hobe?* (Do you know that you will need a lot of money to do this?)" I asked them.

They were prepared for that too. They planned to collect funds from among themselves (SHG

members) for all their expenses. The stage, the microphones and everything would be paid for with that money.

I further inquired about how they were planning to go about arranging the stage and the audio systems. A few suggested that their sons could take care of it. I wanted them to take the full responsibility themselves and not to involve or take help from anyone else. To my relief they agreed.

"*Taale miker baibostha ke aar kokhon korbe?* (Who will arrange for the mic and when?)" I asked.

"*Oi ta beta cha gulo korie debe.* (The boys will handle that.)"

I was a little upset at this.

I asked them. "*Ei anushthan ta kara korche?* (Who is hosting this event?)"

"*Aamra.* (We)" they chorused.

"*Kaader jonno?* (For whom?)" I asked.

"*Aamader jonno.* (For us)" they replied.

"*Taale baibostha ke korbe?* (Then who should make the arrangements?)" I asked them.

There was silence for a while and then they smiled. Their smile told me that they had understood what I wanted to say and their next sentence confirmed it.

"*Aamra. Aami giye miker baibostha korbo, aaro keu cholo aamar saathe.* (We. I will go and arrange for the microphone. Someone please accompany me.)" Malati *di* said.

I gave them two days to plan said that on February 11, I would come back to see the progress. And I left.

Due to my schedules and other commitments, I was unable to be there in Bagmundi on the 11th and had been unable to contact them since the last time we had met. I was scared that the excitement and initiative would become diluted with time and that they may opt out of the plan. I was scared that they wouldn't have planned anything. Because the group had just started to flow properly,

I was worried that they would lose the spark because somewhere deep inside I believed that they needed an external stimulus.

Finally, the next day I went to see them. To my amazement, everything was taken care of.

I realized that the stimulus was not an external one.

They had collected the money—from four groups, each having ten members. They took 20 rupees from each, adding up to 800 rupees. Later, they added some 100 rupees more for tea. They had also arranged for everything that might be needed for the event. Seeing that everything was in its place, I asked them if they had decided how they would conduct the proceedings on the stage during the event and in which order they would go. Also, I wanted to know what they would speak on stage. At that, they went blank and with an apprehensive look they said, "*Oita toh bhaabini, bhaabte hobe.* (We haven't thought of that yet. We will have to think about it.)"

They immediately realized how chaotic it might get on stage and they decided that they should have an order and someone to call out the names. The idea of having an anchor finally came to their mind.

I informed my team about it and they were really excited. They guided me to explore the reason the women were so motivated, why they wanted to do it and how much I should be intervening in the process. Their advice really helped me be efficient

So they planned to choose anchors for the event. I left them to work on that for the day. I told them that I would call them up and check on their progress.

Their phones were again, unreachable. I was tense. The reason for my concern was that this group was like an unguarded candle in the wind, flickering. I was worried that the flame, of proving themselves, might become extinguished.

I informed my team about it and they were really excited. They guided me to explore the reason the women were so motivated, why they wanted to do it and how much I should be intervening in the process. Their advice really helped me be efficient. I tried to understand the group of *Didis*, individually. The team members were also very excited about what would happen on the final day; however, some had their own engagements and could not come to the event. A few of them did join us, however.

It was the morning of 14th February—Valentine's Day for the whole world but Examination Day for the women of Bareria village.

I reached early to see what was happening. I was astonished and also relieved when I reached the spot. The field was filled with anxiety, excitement and tension. The *Didis* were dressed up more beautifully than I had ever seen them. They were so busy and a little confused.

They had all combed their hair properly. I noticed that a couple of them had made a different style of braid. They wore bright and glittering *sarees*. The children were also wearing new clothes.

On enquiring, I found that almost everything had been decided, planned and they were ready for the show. The women had selected two of their daughters for anchoring the whole event.

I hadn't expected them to be so prepared. I had thought that they would ask Binod *da* to write the introductory speech for them. I had also feared that they would be late as usual, or that the women would not turn up, that some of them might back out at the last moment due to stage fright. But everyone seemed to be there. Everyone was ready!

The girls, both studying in the 6th Standard, prepared themselves for the task at hand.

A crowd of around 150, mostly women and some 20–30 men gathered in front of the tamarind tree in the village. Tarpaulin sheets were spread out on the ground for the audience. The audience consisted of people from the adjacent paras. Neighbours, elders, family members, husbands, children... everyone was present. To my amazement, the show started with the National Anthem.

The two girls took to the stage. One was very lively and had braided her hair. Probably her mother had taken a little more time to make sure her daughter looked her best on stage, before dressing up herself. The other girl was a little timid. Together, however, the two of them managed the whole show. Soon, both were comfortable on stage and started having fun anchoring. "*Nomoshkar! Shobai k amontron janachi...* (Namaskar, welcome everyone...)"

One by one, all the women lined up to come on stage. The show continued as each of the SHG members came up on stage, to speak

One by one, all the women lined up to come on stage. The show continued as each of the SHG members came up on stage, to speak about herself. Some were good at singing and the audience requested them to sing. And they did!

about herself. Some were good at singing and the audience requested them to sing. And they did!

Ratni Lohar, Jeetni Lohar and Sabitri Kalindi offered to sing. They looked at me first. Then looked at the audience and announced that they had prepared a song for the occasion. The song spoke about

their group, which was on the way to learning something new, to seeing the world with a new pair of eyes. The song also invited women from other villages to come join them at the *tetultola* (under the tamarind tree), where a girl from Kolkata had come to help them in their quest.

Another *Didi* was pushed onstage to sing; she made up a song on the spot. It went like:

"How will we know how to sing, we spend our whole time working in fields, in kitchen,

I don't know how to make a song, I don't know how to sing"

Some took a few moments before they could speak. Some went up with shaky legs and came back laughing at their own mistakes and a few were spontaneous enough to make up songs on the spot... impromptu. When one *Didi's* name was called out to go onstage, her little three-year old son started crying and held on to her and would not let her go...she broke that barrier, releasing herself from that shackle; she handed over the crying baby to the lady by her side, and went up on stage.

After introducing themselves, some spoke about themselves while a few spoke about the problems that their village was facing. Bharati Kalindi spoke about building unity in

the groups and among women. Some talked about issues such as the lack of cleanliness in the villages, which led to many diseases. A few talked about the fact that alcohol consumption had become a nuisance and was creating a lot of problems for them. Malati Mura and Santara Kalindi talked about a demand for the shops selling liquor to be shut down. Some talked about the fact that they wanted to learn more, go out and see and know more about the world. They wanted to go to banks and other important places to know how things work so that they feel more confident. Every time a lady came back after addressing the crowd, she had a victorious look on her face. Relieved and happy!

The members of the audience were amazed for they were seeing something like this for the first time in their village. This was all very new for them. The event went on for more than a couple of hours. The children got very excited and took over the stage after the event was over. They sang many songs. The programme ended on a happy note. It was definitely a success. They had passed their examination with flying colours.

The following day, I went back to the village. The women had diligently noted down all the details of the collections (funds) and expenditure in the register. Their resolution had been written down. After showing me all this, they told me that there was a problem, a serious problem. The morning after the event, a few men had come to the women and had taunted them about their pledge to shut down the liquor shops in the area. The men had challenged them to do so.

The men said, "*Tomra kichu korte parbe na.* (You will not be able to do anything.)"

The programme ended on a happy note. It was definitely a success. They had passed their examination with flying colours

The women had replied, "*Jodi tomra mod bondh kore dao, aamar haat tola e chul berobe.* (If you men stop drinking, hair will grow on our palms.)"

I asked them: "Do you know why they are saying this?"

"Yes, we know! They think we are not capable of taking any steps. They are saying this to scare us off," they answered.

"And are you scared?" I asked.

"We are not scared. They have challenged us and now we need to prove ourselves," they replied, confidently.

As a group, they wanted to unite over this matter. They wanted to contact other groups regarding this problem and ask those members to join hands with them to fight against alcohol consumption. However, planning this was not easy because there was a huge communication gap between the groups. I gave them time to think over it.

I also asked them about the after-effects of the event and the changes that it had brought. They said that now they can speak to anyone confidently. They no longer need to suppress their feelings.

It was a moment of joy and pride for me. I had always wanted to focus on building people—making people strong so that they could build a life of their own, in the way they wanted. And this was my first step towards it. As I saw them becoming strong and confident, I also gained strength, confidence and conviction. I am very new at this, so even a step as small as this made me feel so happy as if I had received some award. I felt happy that the effort I had put in had paid off well. I realized there was

so much more I could do. And then the next moment, I knew that the SHG women had put in so much effort and had done so much.

What became very clear was that unity was the answer to all the problems. The women needed to stand united, and I began to brainstorm about how to facilitate that.

Two weeks passed.

The *Didis* wanted to call an *upashangha* meeting, in which they would approach the other groups and talk about the issues of men making fun of them and would discuss ways by alcohol consumption could be stopped.

I thought to myself that it would be a good idea to talk about unity there. The problem was that the women often missed these meetings and would be absent. Convincing everybody to come and listen would be a big challenge.

To overcome this problem, the *Didis* planned to send out official letters to each group and they would make it compulsory for everyone to attend the meet.

I wondered if it would turn out like the day of the event on 14th February when many more women from all the SHGs were supposed to take part but had not turned up. I decided to enquire why the ladies from *upor para* (upper hamlet) and *majh para* (middle hamlet) had not come to the event. I found out in due course that caste and class again played a role. The area where the stage event of 14th Feb had been organized was considered supposedly lower caste; this stopped many of the upper castes from joining the event.

My task was to bridge this gap. I needed to do something to bring the people closer, bring

What became very clear was that unity was the answer to all the problems. The women needed to stand united, and I began to brainstorm about how to facilitate that

them under one umbrella. I needed to convince them that they were firstly all humans and not Machuaar, Mura, Mahato or Kalindi. I planned to host an event for this on 18th March.

This event would be more like a game. It had however, a deeper underlying message and would possibly make a bigger impact. I had learned it in Field Course 1, as part of my Development Apprentice programme.

A couple of days before the event, I asked the women of eleven groups of *Bareria* and three groups from *Kudna* village to think of ten sentences on the topic *Aamader Swapno* (Our dreams)—personal dreams or wishes or what they wanted from their SHG. I had some activities planned for them. I prayed that things would work out the way I wanted them to. The goal was a tough one but I had faith.

I divided the day into three slots to accommodate everybody. Groups from *Kudna* were invited to *Bareria*. There was a morning slot (9:00 a.m. –12:00 p.m.), an afternoon slot (1:00–3:30 p.m.) and an evening slot (4:00–7:00 p.m.). The slots were given to the groups in such a way that there would be at least one group from the *upor para*, the *majh para* and the *neech kuli* (lower area). Along with this, there was also the presence of women from all the castes under the same roof—one OBC Group with one ST and one SC in every slot. I was hoping that this might lead to bridging of the gap between them. *Tetultala* (*neech kuli*), where the people belonging to the SCs dwell, was selected as the venue for the morning slot. Ganesh Paramanik's house (*majh para*) was chosen for the afternoon slot, and the primary school (*upor para*) was to house the last slot. The plan was to make the OBC, ST, SC and the general members sit together and not in their

own *para*. It was an exercise in trying to mobilize them, and to break the 'your and mine, upper and lower' barrier. Everything was set!

Unfortunately, the day started on a foul note. Barsha Dol SHG from the *upor para* bailed out of the event in the morning. The reason was something that I had feared the most.

"We are not ready to step into the *neech kuli*. We will allow them to come and continue the event in our area, but we are not going there!"

This was the first obstacle of the day for me and it annoyed me. I was very disappointed. I controlled my emotions and tried to talk sense into them. But I knew that forcing them was not going to take us anywhere.

I left saying, "*Jodi nah aashte chao, taale aar aamar kichu korar nei.* (If you don't want to come, there's not much I can do.)"

The first slot of the event kicked off in the morning. All groups except *Barsha Dol* were present. When I reached, the members of the *neech kuli* enquired about the absence of Barsha Dol. I tried to wave off the question to avoid similar feelings in their minds but they already knew the reason. Disappointment was in the air.

On a happier note, there was a surprise waiting for us there. Women from other places had come to participate. They had heard of this event taking place and wanted to be a part of it. This was the first positive sign of the day. I stayed optimistic.

The first slot had around 38 women. Initially, they sat in their own groups. Women who

The women were, for the first time, getting to share with so many others what they liked doing. It was all so new for them. They were giving importance to themselves...to who they were. Not what they were

hailed from the same region, who belonged to the same class of the society and who knew each other, sat together. This was what we had to overcome through the event. So I planned to randomly divide the whole crowd, by serially counting from 1 to 19 and again repeating it from 1, to make 19 couples.

This shuffled them around so that no two women who knew each other well or belonged to the same class or group were sitting together. Everyone had someone new as their partner. This move would surely take them out of their comfort zone. It was supposed to catalyze the goal of the event. After everyone settled down in their places, I briefed them about their first activity.

Each one had to come up and introduce themselves. But I strictly prohibited them from saying their surnames while giving their introductions. If anyone mentioned their surname, they would be penalized. The penalty was in the form of tasks that they would have to do, which would be decided upon by the members sitting in the crowd. Introductions were to be based on something that they really loved doing. My hope was that this activity would make the women ponder upon what they do for themselves, if anything at all. The women were to come up, say their names and introduce themselves and share something about what they love doing. A few of them made the mistake of speaking out their last names and were to face penalties. But the group decided to let them go without any penalties.

The women were, for the first time, getting to share with so many others what they liked doing. It was all so new for them. They were giving importance to themselves...to who they were. Not what they were.

Some talked about their love for cooking, some said they loved to play with children, some spoke about how much they loved to speak while some said they liked being religious and taking the name of God. Savitri *di*, one of the members, said that she loved to attend these meetings and to learn new things from them. This message was inspiring for me. Binarani *di* said she loved to study and wanted to be able to teach her child. Lakkhi *di* said she loved to roam around in the town. Suchitra *di* said she liked to do clerical work of the groups. Their eyes twinkled as they spoke about what they really loved doing.

The next activity required them to get to know more about their partners. They had to hold hands and stroll around the fields and talk about themselves to the other. I was hoping that as they held hands they would overcome the issue of untouchability when they found out that some of them were *harijans*. My mind was reeling. I was anxious in case it turned out otherwise. What if they rebuked or blamed me for deceiving them into breaking their customs? But I held on to a blind faith in the connection I shared with the *Didis*. I carried on with the activity. It was a leap of faith.

After ten minutes of getting to know each other, they had to give each other nicknames. The names had to be unique to the person and were meant to describe the person in some way.

Initially, there was a lot of hesitation and confusion, among the women, regarding the activity. It was explained to them once again and they were given some more time to spend with each other. They took their time. After they were done, I asked them about the nicknames they had chosen for their partners.

What soothed my heart the most was seeing these Didis run around in the fields holding their partner's hand, giggling and talking as though they were teenage college girls...free and happy! They were oozing enthusiasm

Some had chosen names of fruits because that was their favorite fruit. Some had chosen vegetable names for the same reason. One of them named each other *dal-bhaat* because they felt they complemented each other and the qualities of both were necessary for a healthy life! That amused me. Another named her partner

golap because she was very beautiful. And one simply gave a beautiful '*Sasuri-Bondhu*' (Mother-in-law-Friend) name to the other because she was her cousin mother-in-law. Some made sisters. And some simply called the other '*Bondhu*'. The communication between them was finally increasing. The ice wasn't just breaking, it was melting... 'love-fully'. They were joking around and laughing and really seemed to be enjoying themselves.

As they declared the nick names, they were asked to praise their partners. Each one of them did and they were delighted as they heard their praises. Some were praised for their beauty, some were praised about cooking, about cleanliness, about handling their family and so on. As I watched them smiling, it confirmed to me, that they had built a connection and had also realized how beautiful and worthy each one of them was. I am hoping that this has given birth to some self-confidence.

What soothed my heart the most was seeing these *Didis* run around in the fields holding their partner's hand, giggling and talking as though they were teenage college girls...free and happy! They were oozing enthusiasm.

There was one final activity for them. They had to sit down in their groups and share the goals or dreams they have for their group and for themselves.

As I had guessed, most of the groups shared the same goals and dreams. They all aspired for the same things—better functioning of the SHG, education for themselves and their children, a healthy environment, better income, a healthy family, etc.

I sat by the side and realized that in spite of the bad start, things had finally worked out in our favour. The women had made friends. They were happy and were crossing the caste and class barrier

It all went as planned and this was the opportunity that I had been waiting for. It was time to bring to their notice that there were so many similarities between them. And that they were all so similar to each other. They were like each other—all of them humans, all of them women!

Then I asked them, “Why should you allow a mere tag of caste or class to divide you?”

As I spoke my heart out at the end of every slot, everyone seemed to give it a thought and discussed how true it was. They came up and confessed that they had had many assumptions about their new friends who had been strangers till then; they had now found that they were actually so good. And their caste didn't matter anymore. They promised that they would be friends from then on. Everyone voluntarily spoke about how they felt and how good their new friends were and how wrong their assumptions had been. Probably they had understood. And even if they hadn't understood, I knew that it had triggered a chain of thoughts in their minds—thoughts leading to unity, love and peace and oneness.

The groups then went on to share with each other about how they worked and their achievements. The groups with a lower attendance and the ones that were less efficient received the much-needed inspiration from their peers, who had been performing excellently. They also discussed the various

problems that they had been facing. Together they worked on a problem statement and also tried to come up with a solution through discussions as one group. Now it was with their new friends that they were discussing the problems and seeking the solutions. I was in

the background.

I sat by the side and realized that in spite of the bad start, things had finally worked out in our favour. The women had made friends. They were happy and were crossing the caste and class barrier. In fact, they had started talking so much to their new friends that sometimes I had to literally beg them to listen to me or pay attention to me.

The last slot came with a surprise. Barsha Dol contacted me. They wanted to join in. They wanted to come for the last slot. I wondered whether I should allow them to come but I accepted their request and invited them. As the activities rolled on, the women from Barsha Dol also held hands of the women from the *neech para* and showed a lot of enthusiasm. We were almost there. The goal for the day was almost achieved. The finish line was in sight. But questions kept popping up in my mind. I wondered what had suddenly made them join. Meanwhile, the activities went on smoothly.

During the last activity of sharing in the group, Jeetni *di* came over and asked me if she could address the crowd. She shared something about the event that they had organized on 14th February. She talked about how alcohol was ruining everything for them. She boldly put forward the facts that everyone was aware of. She spoke about how the husbands were stealing food and money from the homes for alcohol, how useless they were becoming

and how the women were being beaten up. And then she shared with the group how after the event, the men had made fun of their movement against alcoholism.

Everyone in the other group united over this issue. Shock and anger was visible on their faces. They swore to help the women of the village. They were ready to stand beside them and fight for the cause. They wanted each and every group from both Bareria and Kudna to unite and fight for this. Everybody agreed. The numbers were increasing. I was filled with happiness and pride. The curtains of caste were finally disappearing.

Jeetni *di* continued.

“What I am going to say now may hurt a few of you.” She looked at me and then at the members of the *Barsha Dol*.

I realized that she was going to speak about the members of *Barsha Dol* and the fact that they had, initially, bailed out of the event due to the caste issue.

Before she could continue any further, I interrupted. I felt it would be better if both the groups talked it out like grown-ups instead of fighting over the issue like children in school. They agreed to hold peaceful talks!

I was speechless, I had no words. It was like witnessing magic. It was the moment. All my efforts had paid off. The women, all cheered, talked and made much noise. But all I had was a peaceful silence around me. It was one of my greatest victories

The members of the *neech kuli* very peacefully and boldly pointed out that if incidents like the one today, when the *Barsha Dol* had refused to go the *neech kuli* was repeated, the women would not be able to unite. They also shared how sad they had felt and how it had hurt their feelings.

In response *Sarathi di* from *Barsha Dol* very wisely stated that they had not thought of it from that perspective. They agreed that now was not the time to think of caste. They apologized for their mistake and promised that they would no longer commit such mistakes. To my amazement, they also added that there were a couple of women who discriminate on the basis of caste and if the next time such a situation arose they would rather eliminate those women and stand by their new friends. And every woman from the *Barsha Dol* agreed to that.

I was speechless, I had no words. It was like witnessing magic. It was the moment. All my efforts had paid off. The women, all cheered, talked and made much noise. But all I had was a peaceful silence around me. It was one of my greatest victories.

Deep inside, I knew just the blueprint had been made. The monument still had to be built. And I started my journey to reach the next milestone.

Indigenous Backyard Poultry Promotion: The Keonjhar Experience

ANJAN SWAR

Focusing on making BYP a financially viable enterprise, and through systematic handholding of SHG women, training them and ensuring regular deworming and vaccinations for the birds, the CAHWs have set villagers on the path to progress and prosperity.

In India, almost all rural households keep livestock, and backyard poultry (BYP) rearing is very common. BYP rearing plays a special role in the day-to-day, as well as the ceremonial and ritual lives of rural communities. BYP is a ready source of meat, and rearing is inexpensive, with low external inputs, is easy to manage and requires minimal time input. It helps control pests on farms, and there is no requirement for intensive knowledge to keep poultry in the household. It is also a significant contributor to the income of a household, especially for women, in times of emergencies.

Small livestock is the cheapest source of nutrition for tribal and marginal families; children and women meet their protein requirement mainly from eggs and chicken. Although rural BYP contributes nearly 20–30 per cent to the national egg and chicken production, it is a neglected sector yet. It can be a potent tool for the upliftment of the poorest of the poor.

This article describes the practices of rearing indigenous breeds, or *desi* birds, only. BYP promotion can also be practised with improved breeds such as *Banraja*; the experiences of poultry farmers, however, have been varied. BYP is one of the most important livestock of tribals and other rural communities because of its socio-religious use. Most tribes believe that numerous diseases, either in human beings or in animals or birds, are caused when the supernatural powers are unhappy. Therefore, in all calamities, including the mass mortality of poultry, the sacrifice of animals and chickens is a routine practice and is prevalent even today. Half the birds produced by the family are consumed at the time of festivals or when guests visit. Poultry are also given as gifts in marriages, functions and religious ceremonies by most rural communities, especially the tribals. 'Cock-fighting' (a local game which is played between two *desi* male birds and the owner of the winning cock gets the dead/defeated bird with some rewards, mostly in cash) is a popular sport and birds are reared for it.

Although no definite evidence is available about the origin of the different local breeds, ethnic tribal groups seem to have played a significant role in the development and maintenance of the uniqueness of indigenous breeds nurtured by them for years. The rural communities of Mayurbhanj and Keonjhar area mostly rear the *Hansli* and the *Gujuri* locally. The *Hansli* breed is commonly used for the local cock-fighting game. Markets have a preference for the *desi* eggs and meat of indigenous poultry rather than of farm-bred chicken. Moreover, eggs and meat from local breeds are sold at a premium price, usually double the price of commercial farm-bred poultry products.

Broiler farming needs more initial investment whereas the traditional BYP requires very low investment. Small-holder BYP production, utilizing local breeds is, sooner or later, expected to have serious competition from the commercial poultry sector; if not well planned, the genetic resources of the local poultry may

be lost, as has already happened in many of the developed countries.

Shown below are the various facets of these two poultry production systems presented from a small farmer's and women's points of view.

There is high demand for local eggs and birds. During the festival season, it is even higher. Cocks used for fights are sold at very high prices in the local market. The main interest of BYP farmers is to sell birds for the purpose of meat rather than to sell eggs. So, hatching all the eggs produced, and adopting better rearing practices, to grow and sell more and more birds is the prototype of this potential livelihood.

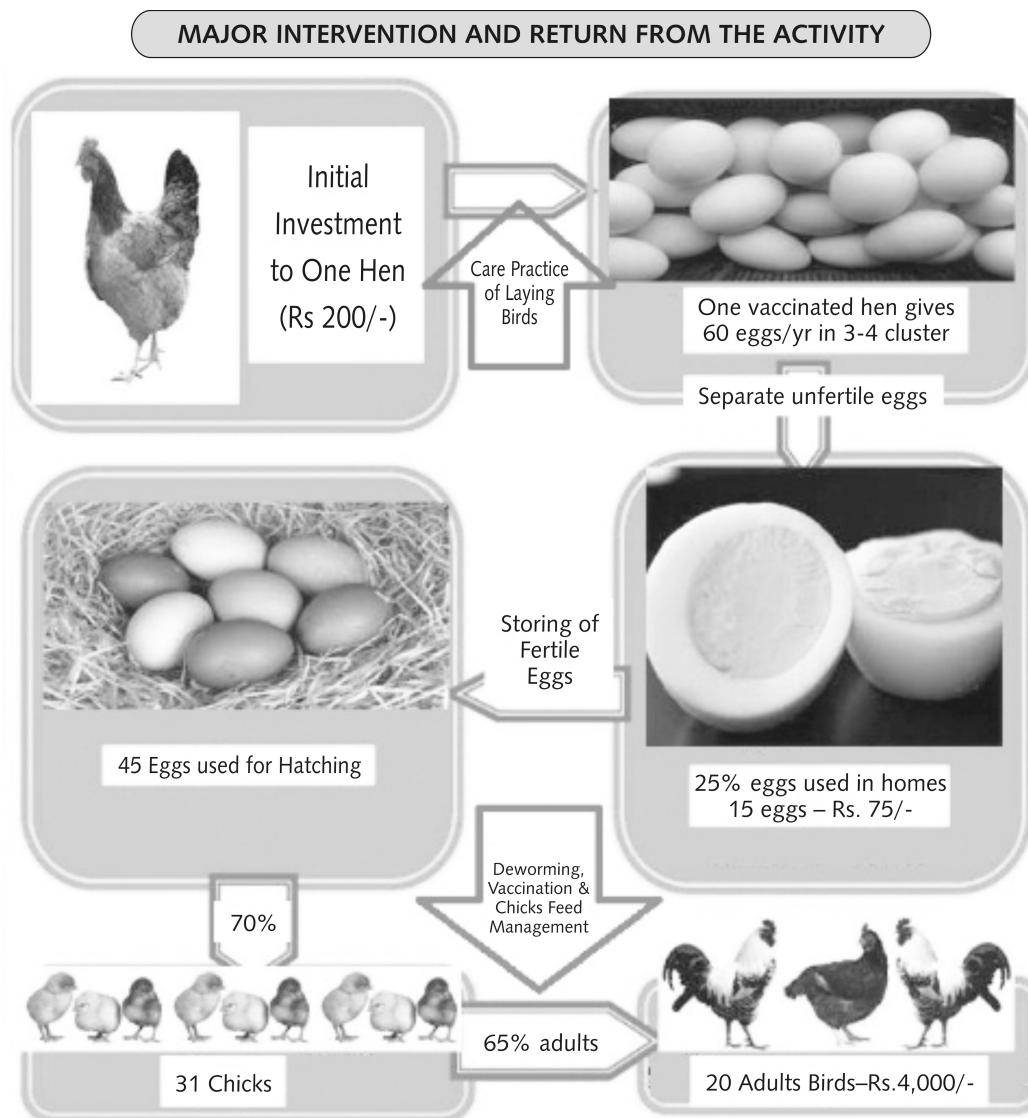
One hen produces 60 eggs per year in 3–4 laying cycles (clutches) per year. The average BYP stock of about 60–70 birds with 5–6 hen units can be easily maintained by an average family, with access to a backyard of about

Table 1: Facets of Backyard and Commercial Poultry Production Systems

Facets of Production System	Backyard Poultry	Commercial Poultry
External input	Low	Fully dependent
Dependency on outside agencies and market	Low	High
Output	Low	High
Investment vs. Return (per unit)	High	Low
Involvement of small farmers and women	High	Low
Market risk	Low	High
Effect on environment and biodiversity	Promoted positively	Negative effect
Importance regarding festival and ritual use in rural areas	High (ritual and consumption)	Medium (consumption)
Consumption of human food and grains	Very low	High
Activity contributing to producer	Social customs, Nutrition and Livelihood	Only Livelihood

Source: <http://www.fao.org/livestock/AGAP/frg/conf96.htm/rangnek2.htm>

Figure 1: Significance of BYP Rearing (Productivity and Economics of the activity)



half an acre. A small flock, managed carefully, brings more benefit than a neglected big flock.

Although there is limited scope to calculate the feed-to-cost (FCR) ratio for BYP because of the scavenging conditions and the naturally available feed, an average indigenous poultry bird gains 1.5 kg of body weight in eight months (maximum), with regular de-

worming. The bird can attain this 1.5 kg body weight within 5–6 months if provided with some supplementary home-made feed. This weight is attained without any additional supplementary feeding in the crop harvesting season because feed will be available naturally at the time of harvesting paddy or vegetables such as cauliflower and cabbage. However, a farmer may need to provide additional feed

if she does not have enough well-protected scavenging area. The probable return from the activity can be calculated after considering

all aspects of the intervention. The activity returns a significant amount to the family as described below.

Table 1: Economics of BYP for a Family

Assumption considered		Investment required	In Rupees
No. of hens	5	Shed (minimum 50–100 sq ft): Lump sum	2,000
No. of clutches per year, per hen	3	Feeder and drinkers (local made): Lump sum	200
No. of eggs per clutch	12	Expenditure (yearly)	
Chicks hatched per clutch	10	Vaccination and de-worming of 90 birds (Rate Rs 7 per year)	630
No. of chicks surviving up to the sellable stage per clutch	6	Feed (paddy, broken rice, husk)— Under scavenging conditions (Rate: Rs 10)	1,200
Price per bird (6–8 months) 1.5 kg	250	Nutritious feed provided under scavenging conditions (Rate: Rs 13)	374
Feed (paddy, broken rice, husk) provided for 8 months (daily)	0.5 kg per day	Medicines: Lump sum	200
Nutritious feed provided for 8 months (daily)	120 gm per day	Total expenditure	4,604
Return per clutch	1500	Net Income	17,896
Return per hen per year	4500		
Total Return from 5 hens per year	22500		

Table 2: Profile of Patna Block

ST & SC %	61
Literacy %	64
Population density	278
Terrain	Undulating terrain with thin forest cover
Poverty incidence	Moderate: 7% BPL
Number of SHG	530
Major community	Gond (ST), Mahanta (OBC), Bathuli (ST)
Livelihood Source	Agriculture, Livestock, Wage

PRADAN'S EXPERIENCE OF BYP

PRADAN has been operational in Patna block of Keonjhar district since 2001 and has been working in nine *gram panchayats*. Livestock is the second most important source of livelihood for the poor farmers of the area, after agriculture. Almost all the families in the area traditionally rear small animals such as goats, sheep and poultry in their backyard. Although rearing of BYP is very common in the households, the activity is not looked upon as income-generating because of the frequent mass mortality of the birds. Diseases such as the Newcastle Disease (ND) and fowl-pox in BYP, and PPR (Peste des petits ruminants), enterotoxaemia and goat-pox in goats are widespread in the area. This also comes in the way of the community maintaining a reasonable herd-size, so that the activity may be seen as viable.

In 2011, the PRADAN team in Banspal block of Keonjhar initiated a project on developing a self-sustaining system, to provide affordable and effective vaccinations, de-worming and basic health care services to BYPs and small ruminants, with support from GALVmed (a global organization working on deadly diseases in different countries). After seeing the positive results in Banspal, it was decided to expand the programme to Patna block. Because of the presence of the forest, the community in Banspal rears more goats and less BYP (due to the high incidence of predation of birds). In Patna block, the community rears mostly BYP because of the presence of larger homestead land and less incidence of predation. There are also fewer goats because there is less forest coverage and less grazing land. An integrated programme was designed for Patna block,

In 2011, the PRADAN team in Banspal block of Keonjhar initiated a project on developing a self-sustaining system, to provide affordable and effective vaccinations, de-worming and basic health care services to BYPs and small ruminants

taking into consideration the community's willingness and capability. The objectives of the programme are:

- (a) To support a large number of small and landless farmers, who had been mobilized into SHGs for many years, in enhancing their household income
- (b) To have a viable livelihood option for women, without affecting their current livelihood engagements
- (c) To control deadly diseases such as RD (Ranikhet Disease) and PPR in the area, the presence of which is hampering the establishment of livestock-based livelihood
- (d) To establish self-sustaining localized livestock-related service systems, through grooming and establishing Community Animal Health Workers (CAHWs).

Though the intervention was for both—BYP and small ruminants such as goats—the focus was more on BYP because the area had a larger scope for BYP than goats. Moreover, the intervention for BYP caters, more or less, to the need to support goat-rearing simultaneously.

INTERVENTIONS IN BYP

Creating Awareness

An exposure visit was organized for the members of Baitarani Mahila Sangha (BMS) Federation, a Federation of the SHG members in Patna block, to Banspal, for a better understanding of the mass vaccination programme and its implications on BYP. BMS members were very excited to see the programme and learn that because of the vaccination, the mortality of the birds has been controlled; the women are managing to keep

a big flock size and are earning good profit from the activity. The members were keen to initiate such a programme in their own area as well. In Patna block, the BYP programme was initially introduced in nine *gram panchayats*, covering 49 villages.

The women were made aware of the importance of vaccination and de-worming, using various Information Education Communication (IEC) tools such as street theatre, wall painting, leaflets, posters and screening of videos. The traditional street theatre is embedded in tribal culture and has religious overtones in the area. The use of theatre to spread awareness has been successful and has helped the community to appreciate the importance of vaccination and de-worming; and it has become interested in the programme.

SHG members then identified local youth from their village, based on their reading and writing skills, their availability in the village, and their interest and attitude. These local youth were trained as Community Animal Health Workers (CAHWs). BMS finally selected 40 CAHWs from those recommended by the SHG, using an ability test, followed by an interview. The CAHWs were then trained in two batches, with the support of GALVmed.

To initiate the programme, all the selected CAHWs and village-level SHG leaders were trained in motivational as well as the basic technical aspects in different phases. The selection of the entrepreneur (vaccine and medicine retailer) was also done to establish a cold chain system and medical services.

The mass vaccination and de-worming programme was supported by GALVmed for one year. Almost 3,000 families were covered

The women were made aware of the importance of vaccination and de-worming, using various Information Education Communication (IEC) tools such as street theatre, wall painting, leaflets, posters and screening of videos

in the first phase of de-worming and vaccination. Two monthly meetings are conducted by BMS, to monitor the work of the CAHWs, the delivery system, the training of the SHG members, the monthly planning and a review of the progress.

Regular meetings are held, and members discuss various issues regarding the vaccination

and de-worming schedule, and work of the CAHWs. Other than periodic vaccination and de-worming, trainings are given regularly to SHG members by CAHWs on improved practices such as chick or kid management, supplementary feed, hatching practices and shelter, to enhance the activity.

The community is mainly rearing poultry, goat, sheep and duck in the area, depending on the family context such as the availability of natural feed or fodder in the village, availability of labour in the family as well as the community context. Rearing any single species of livestock such as goats or BYP may exclude some poor families from engaging in livestock-based livelihoods as a poverty reduction programme.

The interventions started with a vaccination and de-worming service of all small ruminants and birds. The vaccination service had earlier become erratic because the mortality of animals due to deadly diseases was in decline in some areas. People have, once again, realized the importance of regular vaccinations after the recent disease outbreaks. Gradually, the team also initiated a first-aid service and improved medical services, to establish the activity.

Developing Sustainable Service Delivery System

The objective of the system was to establish the vaccination and medical services in a

sustainable manner at the doorstep of the farmer, through an entrepreneurship approach. As poultry vaccination and deworming are usually done in the evenings after the birds come home, there is need for a community link worker in the village. In the livestock service programme, the CAHWs have been groomed as entrepreneurs and are getting paid for their services from the community. Each CAHW caters to 200 to 250 families.

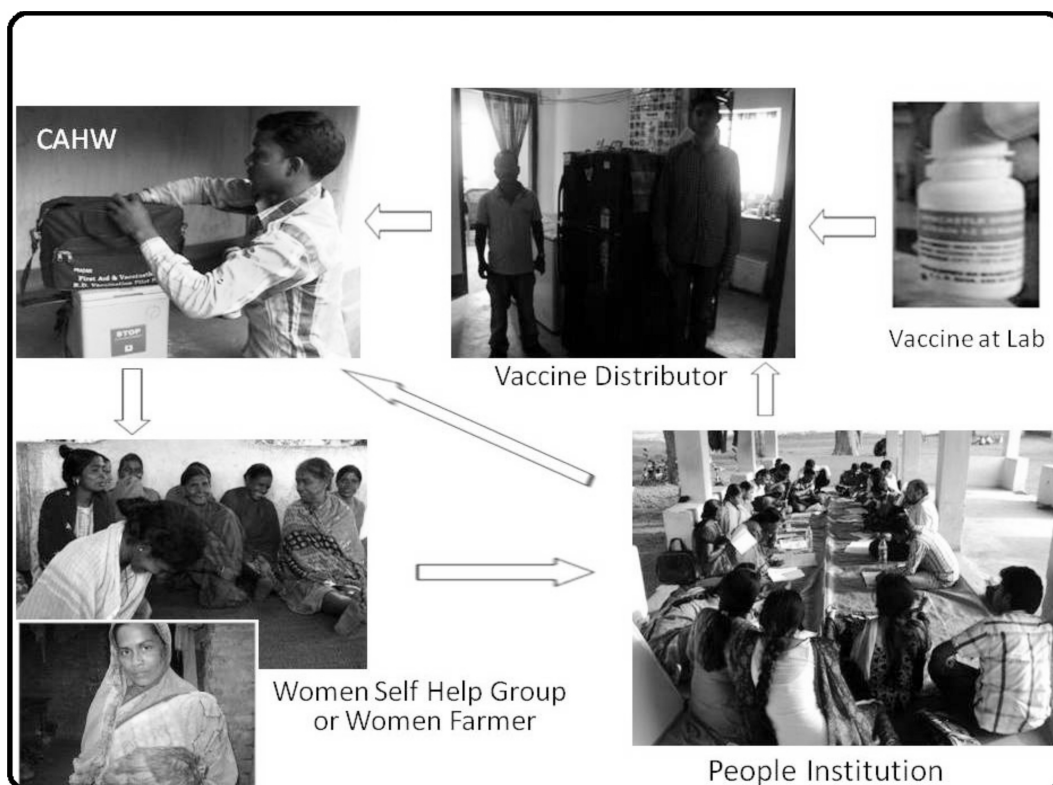
The trained CAHWs have been provided with some input support such as the thermo-flux vaccine carrier and a kit bag with instruments to maintain a cold chain and provide services in the area. To ensure mass vaccination,

The objective of the system was to establish the vaccination and medical services in a sustainable manner at the doorstep of the farmer, through an entrepreneurship approach.

maintaining a cold chain is a pre-requisite to run the service sustainably. An entrepreneur system has been established in the area to provide medicine and vaccines to the CAHWs on a regular basis. A PRADAN promoted local broiler co-operative acts as a vaccine retailer. The local medicine

store or veterinary store can also act as an independent entrepreneur. The selection of the retailer is very crucial for a regular supply of medicines and vaccines. The retailer also provides a report on the selling of the vaccine and medicine on a regular basis. The report helps in tracking the progress of the mass programme and to cross-check it with the data provided by the CAHWs.

Figure 2: Service Delivery System



CAHWs purchase all the vaccines and medicines from identified medicine shops in their vicinity. Villagers with BYP and goats avail of their services, on payment basis. These services are made available at a reasonable price at the villagers' doorsteps, and are easily accessible and affordable by all the families of the village, including the poorest section. A regular meeting of all the CAHWs takes place at the central level, supervised by BMS, to facilitate work, track the progress vis-à-vis the plan, address concerns and monitor the efficiency of CAHWs.

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- ♦ Technical training on de-worming, vaccination and medication practices of livestock (birds and shoat)
- ♦ Training on improved practices regarding nutrition, chicks or kid management, hatching practice, bio-security measures, night shelters, etc.
- ♦ Training on community services and entrepreneurship regarding the importance of cold chains, the role of an entrepreneur, communica-

tion skills to deal with the community, the importance of a leadership role, etc.

TRAINING CAHWS AND BYP REARERS

GALVmed has played a major role in grooming CAHWs and providing them with technical guidance. Various technical trainings have been conducted for CAHWs, with the support of the Veterinary Assistant Surgeon as Consultant from GALVmed. Moreover, CAHWs have been groomed as a unique exercise by following these steps:

- ♦ Orientation-cum-vision building of selected CAHWs

- ♦ Training of Trainers to provide training to women farmers at the village level

The three-year experience of this group is described in Table 3.

Intensive capacity building of the rearers (mostly women SHG members) was incorporated in the existing strategy. CAHWs provide regular training to SHG members on rearing and management practices. Regular meetings are organized at the SHG level by

Table 3: Analysis of the Three-Year Engagement of CAHWs

Analysis of Engagement of 40 Selected CAHWs for Three Years	2012-13	2013-14	2014-15
Average monthly income (Rs)	1526	1428	2042
Range of income (Rs)	504-4000	295-3800	315-5472
Income from vaccination	56%	48%	49%
Income from de-worming	42%	35%	33%
Income from medication	1%	17%	18%
CAHW dropouts (of the 40)	5	3	2

CAHWs for women rearers, who help in peer learning, in demanding and realizing regular services, in ensuring payment to CAHWs, in providing first-aid services, improved rearing practices of livestock, etc.

Earlier, up to 70–90 per cent of the birds died due to epidemic diseases such as ND; young chicks largely died due to fowl pox. Vaccination is the only reliable way of controlling the disease

made aware of the schedule; the rearer pays Rs 1 per bird, per service to the CAHW. Two common vaccines—LaSota and R2B—are being used in our context. Because the ND vaccine is live and freeze-dried, it must be kept at a temperature between 0° and + 80° C, even

CONTROLLING MORTALITY

The commonly occurring diseases in the area are Newcastle Disease (ND), also known as Ranikhet disease, fowl pox, lice and worm infestation.

Earlier, up to 70–90 per cent of the birds died due to epidemic diseases such as ND; young chicks largely died due to fowl pox. Vaccination is the only reliable way of controlling the disease. The brooding mortality of the local birds is also 20–40 per cent.

To control the mortality, a vaccination calendar has been drawn up and the rearers have been

while carrying the vaccine from one place to another. LaSota is an eye drop whereas R2B is an injection. Eye-drop administration provides the best protection because the vaccine passes to the Harderian gland, just behind the eye. (The Harderian gland is one of the key organs in the development of the immune response in chickens).

De-worming and vaccination are the major stepping stones for those who want to take this livelihood up on a large scale.

Table 4: Vaccination Schedule

Type of Regular Services	Promote For	Age Considered	Method	Doses	Periodicity	Vaccine/Medicine Tentative Rate (Rs)	Payment Per Bird
LaSota	RD vaccine	21-day-old chicks	Eye drop	1 drop/ bird	3 months	25 per 100 dose	Rs 1
R2B	RD vaccine	3-month bird or 200 gm body wt.	Injection	0.5 ml/ bird	6 months	30 per 100 dose	Rs 1
Albendazole/ Felmedazole	De worming	15-day-old chicks	Through mouth	1–5 drop depending upon the size (no. of months)	3–4 months	250 per Lit.	Rs 1
Fowl pox	Fowl pox vaccine	3-month bird or 200 gm body wt.	Injection	0.2 ml/ bird	1 Year	42 per 200 dose	Rs 1

Figure 3: Vaccination and De-worming Calender

Month --->												
	January	February	March	April	May	June	July	August	September	October	November	December
Chicks	De-worming & Lasota			De-worming & Lasota			De-worming & Lasota		Fowl-pox (more than 2 month)	De-worming & Lasota		
Bird	De-worming & R2B			De-worming			De-worming & R2B		Fowl-pox	De-worming		
Goat	De-worming & Pox		ET		De-worming	PPR			De-worming		ET	

IMPROVING REARING AND MANAGEMENT PRACTICES

Although there was need to focus on mortality checks through regular vaccination and de-worming, the intervention needed to be more holistic in nature. Training on aspects such as nutrition, housing, breed improvement and a curative disease control mechanism would ensure substantial income to families. A Training of Trainers (ToT) was conducted for selected CAHWs on rearing practices, using pictorial material on local hatching and brooding processes, preparation of feed, chick management, low-cost housing with local material, benefits of using feeders and drinkers, how to protect chicks from predators, identifying epidemic diseases through symptoms, recognizing the carrier of widespread viral diseases such as RD, control mechanisms of these diseases, the treatment of lice, utilizing the service calendar, the economics of BYP and goat-rearing, etc.

These CAHW-cum-trainers were engaged to provide rearing and management training to SHG members. An SHG-led services system (wherein an SHG as a whole demands regular vaccination and de-worming services from CAHWs and make their payment collectively) was found to be more sustainable than generating demand, ensuring payment and maintaining a long-term association with the CAHWs.

Shelter: Night shelters are required to protect birds from predators, and to protect chicks in the rainy season. Usually, poor farmers do not provide any separate shelter for the birds, which are housed in their homes. Chicks are usually kept under a basket, and the bigger birds cuddle up in one corner of the room during the night. Sometimes, the night shelter of the birds is made up of locally available material. A shelter is crucial to protect the birds from wild and stray animals.

Hatching Practice: The selection of the breed of a laying bird is also important, for improving egg production. A good shelter helps in safeguarding eggs and in monitoring the hatching process. It becomes easier to record the performance of individual hens because each hen lays her eggs in a separate nest regularly, and to get information on egg production, laying capacity and hatching performance of each hen. Those hens with a higher egg production and hatchability

can then be selected to reproduce the next generation of birds.

Feed: Recycled household and farm wastes, and naturally occurring resources comprise the feed of BYP. Grain and grain by-products such as broken rice, bran, cabbage leaves, maize, millet, drumstick leaves, leafy vegetables, termites, azola, etc., are usually used as supplement feed for the birds, except during crop harvesting time. Table 5 shows how nutritious feed can be prepared.

Table 5: Preparation of Nutritious Feed for BYP

No.	Particulars	Quantity	Rate (Rs)	Process of Preparation	Use	Benefit
1	Rice husk dust	500 gm	0.5	Mix all material and keep in dry place	Add required water before use. Use feeder to reduce loss	The feed can be used for 10 days for 50 bird stock size (under scavenging conditions)
2	Broken/Reject rice	500 gm	8			
3	Dry fish dust	150 gm	4			
4	Cake dust (Sunflower/ Mustard/ Niger)	50 gm	2			
5	Mineral mixture	1 teaspoon	1			
6	Salt	2 teaspoon	0.5			
TOTAL		1.2 kg feed	16	Feed Rate: Rs 13 per kg		

Jayamani Munda is a 35-year-old woman. She is a member of the Maa Kichakeswari SHG. She lives in Bardangua village, of Chemana *gram panchayat*, Patna block, with her husband Arjun Charan Munda and their three children. Arjun is ill and not in any state to support his family. Her son and elder daughter are studying in classes VI and II, and the younger daughter is only one-and-a-half years old. The family owns 50 decimals of land on which they grow paddy. The family has only a two-month food sufficiency, and is completely dependent on rice from the Public Distribution System (PDS).

Until a year ago, to make ends meet, Jayamani would work as wage labour and support the family. Jayamani took up the BYP activity in 2014 after seeing the economic impact that it had on the other families in the neighbourhood. At present, she has 45 birds including five hens as the mother stock. She happily says that she earned Rs 15,000 from BYP in one year and still had 20 birds for home consumption. She sold her birds in the local market for Rs 230–240 per kg. She never imagined earlier that BYP could be a sustainable livelihood for her family. She found BYP to be a less labour-intensive and a low investment activity.

Also, because Jayamani has small children, she finds BYP a very good intervention. It is not very time-consuming and she cares for BYP along with her other work. She now brims with confidence that she can earn a good income from rearing BYP. She is also very proud that she did not have a single mortality because she followed the vaccination and de-worming process regularly, as advised.

She now knows that regular vaccination and de-worming of birds is the backbone of the new activity she has found. Before this intervention, she had never sold her *desi* bird in the local market. She sells her birds when they each weigh a kilogramme. She found that selling them at this stage is more economical and manageable than waiting for the birds to gain more weight.

After ten months of the intervention, she made an effort to improve the rearing practices of BYP. CAHW, Pradumna Maharana, helped her to learn how to prepare feed for BYP. Learning this was particularly helpful for her because the family did not have sufficient grain or husk to feed the birds. Jayamani has also started using a feeder and drinker, on the advice of the CAHW. The de-worming and the nutritious feed helped the birds attain a body weight of 1 kg within four to five months. Now Jayamani is looking to increasing her stock

She receives support from her family members for this activity. Jayamani shares that the money that she earns from this activity is used for emergencies and medical purposes. Jayamani has a vision to provide education for her children as per their wish. Not only that, she wants to purchase gold for her two daughters and plans to marry them into good families. She proudly says that BYP can play a major role in helping her fulfil her vision within a few years.

CHALLENGES

♦ **Dropout of CAHWs in the initial period.**

Once the vaccines were administered, the occurrence of disease dropped and people did not feel the need for vaccination. This led to a drop in the demand for vaccinations. CAHWs, on the other hand, needed a certain scale of operations for financial viability; this was difficult to ensure initially when the utility and the efficacy of the services needed to be established. Moreover, the payment system had not been put in place and CAHWs were unable to get their payments on time. The outbreak of bird-flu within the first year, created much confusion. Some thought that the vaccination was not helpful; some suspected that it might have been caused by the vaccination! Moreover,

some CAHWs lost the enthusiasm to engage as entrepreneurs or collect service charges from farmers of their own village. Zero cost or subsidised vaccinations also did not help establish a sustainable service system. These are some of the reasons resulting in the initial CAHW dropouts.

♦ **Lack of cooperation and collaboration between CAHWs and Animal Resource Department (ARD).**

The local ARD staff felt threatened that they would lose their base or acceptance and business because of these CAHWs. The government does not have the personnel to provide services at the doorstep. Once the community became aware, it began to demand that the government also maintain a cold chain. CAHWs also found it difficult to collect a service charge because the government

usually subsidised the vaccines whereas CAHWs could not offer any subsidy in the initial period. Large-sized vaccine packs in case of fowl-pox and goat PPR caused huge losses for all CAHWs.

- ♦ **Poor electricity supply.** It is difficult to establish a supply chain activity in a low population density area with poor electricity supply.
- ♦ **Maintaining a cold chain during the summer season especially in remote areas.** The vaccine calendar has to be designed in the context of the area and needs to address the challenge.
- ♦ **Predatory animals.** Predatory animals such as dogs, wild cats and other wild animals are a problem in most of the villages situated either near or within the forest area. Fencing at the homesteads may be helpful to protect the birds from predators.
- ♦ **Low confidence of families.** People lacked belief in the importance of this programme in the initial period, especially in bird-flu affected areas. There was no mechanism or medicines to control bird-flu. Although the birds were given the RD vaccine, people responded sluggishly in the bird-flu affected areas due to their lack of awareness.

IMPACT

From among the villages where the intervention was introduced, eight sample villages and 1,115 families were studied for impact assessment. A control village in the same area (where no such livestock vaccination and de-worming programme had been initiated or carried out ever) was also selected to compare

Overall, the communities have appreciated greatly the services of the vaccination and de-worming of livestock

the impact of our intervention. The first year intervention helped the community increase their stocks substantially. In the second year, the community sold their product on a large scale.

Data was collected from 79 families through random sampling in March 2015 (the third year). The activity is increasing and proving to be a viable livelihood option across the area.

Table 6 shows the impact of the activity in the treated villages as compared to the control village in the first year. Table 7 shows the income enhancement in the second and third years through random sampling in the area.

The impact of de-worming is clearly observed within one month, in case of BYP, and within three to four months, in case of goats, in terms of growth and lustre. RD in poultry birds and PPR in goats is largely under control in the treated villages. This preventive intervention of vaccination was an entwined experience.

Overall, the communities have appreciated greatly the services of the vaccination and de-worming of livestock. However, some families have been voicing their concern about the mortality of their birds due to various reasons such as RD and bird-flu.

The impact of the drive—to motivate communities and create awareness about the importance of vaccination as a preventive measure—was also partial. Some families stopped vaccinating their birds because RD was controlled after the first round of vaccinations. The outbreak of disease in vaccinated birds stopped completely whereas the un-vaccinated birds of the same hamlet died. The biases of the community needs to be addressed, and more time and effort is required to establish a sustainable service system.

Table 6: Impact Assessment of Control and Treated Villages

Impact Assessment: April 2012 to April 2013						
Intervention in Patna Block (First Year)	Control Village (One village: 98 Families)			Treated Village (8 Villages: 1,115 Families)		
Average figures (Per HH)	Before	After	Growth	Before	After	Growth
Poultry population	4.55	4.46	-2%	9.56	22.41	134%
Chicks per hen	2.94	2.86	-3%	3.5	4.9	40%
Poultry bird mortality (%)	110			40		
Goat population	1.63	2.11	29%	2.94	5	70%
Kids per doe	0.81	0.69	-15%	0.73	1.09	49%
Goat mortality (%)	20.6			6.3		

Table 7: Impact Assessment of 79 sample families

Impact Assessment: April 2013 to March 2015 79 Sample Families in Patna Block					
Average Figures (Per Household)	April 2013	April 2014	April 2015	Growth (Year 2)	Growth (Year 3)
Bird (Big) population	10.8	12.3	14.1	12%	13%
Chicks population	12.5	17.6	22.2	29%	21%
No. of birds sold in the year	NA	11.7	14.5	NA	19%
No. of birds consumed in the year	NA	15.9	16.6	NA	4%
Net amount (consumed + sold)	NA	7,019.63	10,188.61	NA	31%
Growth of production in the last 2 years					65%

CONCLUSIONS OF THE IMPACT ASSESSMENT STUDY:

- ♦ The outbreak of RD has been completely controlled in vaccinated birds whereas non-vaccinated birds in the same hamlet died.
- ♦ More than 2,000 families are now confident of generating an income of about Rs 20,000 from BYP activity in the area. In combination with their income from goat-rearing, the villagers hope to enhance their income to about Rs 30,000 per annum.
- ♦ CAHWs earn Rs 2,000 to 3,000 as entrepreneurs by working about 12–15 days per month, covering 180 to 220 families in 1–3 villages. BYP activity helps them meet the immediate needs of their family as does the goat-rearing activity.
- ♦ In a homestead farm-based system, where the vegetable and horticulture farms are adjacent to the home, BYP is very acceptable as part of the farming system.

CONCLUSION

For many livelihood-promoting agencies, the challenge has been to identify, design and promote livelihoods or strengthen interventions that would support the poorest of the poor of any community. This intervention of establishing a sustainable service system for vaccination, de-worming and basic rearing and health-care of the livestock, especially for BYPs and goats, is probably better positioned to address this challenge. A large number of the poorer households in the project villages, including the women and the destitute, have participated and benefitted significantly from this activity.

The following are the unique features of this intervention that position it as being really suitable for these vulnerable households. Aspects such as:

- ◆ Low or minimal investment requirement
- ◆ Low gestation period
- ◆ Continuous income flow
- ◆ Low level of risk
- ◆ Scope to initiate the activity at a varied scale that can gradually be scaled up
- ◆ Low dependency on external linkages
- ◆ High market demand
- ◆ Less time and energy consuming
- ◆ Minimal entry or exit barrier
- ◆ Low skill or competency requirement
- ◆ Socially acceptable in most areas
- ◆ High liquidity of produce such as birds and goats
- ◆ High significance for ritual and social needs
- ◆ Easy to establish the support system, etc.

The uniqueness of this programme makes it better suited to most of the rural families, including the poorest section.

This is also more suitable for women because it is socially accepted that livestock-rearing is usually considered an activity of women. They have a better say in production and sale and have better access to income from its sale. Further, this activity can be done by large number of families in a village, helping establish a business model for service providers like CAHWs.

The activity does not require large grant support or long-term hand-holding from any external agencies. Establishing a supporting service system helps many poor families to take up BYP or goat-rearing on a business scale. These special features of the intervention position it as the most effective intervention, to strengthen the livelihoods of the poor rural community.

Using Sunlight for Irrigation

SIDHARTH SWAIN AND SAURAV DUTTA

In a region that had a perennial source of water but no means to use it to irrigate fields, in a region that could not dream of having more than one crop a year, the use of solar energy for lift irrigation has ensured water supply in the fields for irrigation through the year and has transformed the lives of the farmers

Karkatalan is a small village 15 km from Kasmar block and 5 km from the main Petarbar market in Bokaro district, Jharkhand. The village comprises 40 families, 33 from the Schedule Tribes (STs) and 17 from the Schedule Castes (SCs). The village stretches across a huge geographical area of 286 ha, of which 70 ha are protected forest land and 143 ha are agricultural land, comprising 75 per cent upland, 15 per cent lowland and 10 per cent medium upland and homestead.

In 2007, PRADAN initiated work in Karkatalan village with the formation of three SHGs and some agricultural intervention. Agriculture in this area being mainly rain-fed, the major intervention was during the *kharif* season on SRI paddy and vegetables such as tomatoes, brinjals and creepers. In 2010, SHGs were supported by the Bill and Melinda Gates Foundation (BMGF) demonstration fund for Agriculture Production Cluster (APC). APC is an innovative concept, propelling agricultural productivity of a particular geography with the ultimate objective of increasing the profit margin of primary producers.

Areas with similar agriculture practices and cropping patterns are identified for the purpose. Usually, three to four crops are selected and promoted as major crops for a particular area. Based on the production patterns and market study of farmers in a hamlet, 25 to 30 farmers are mobilized into an informal collective.

The farmers in Karkatalan also became members of the APC. New techniques were introduced in agriculture such as wire stacking in tomatoes and growing creepers on trellis; the focus was on increasing and intensifying the production of select crops by adopting improved technology and optimal Package of Practices (PoP), and strengthening input market linkages.

Farmers were given training on new crop interventions and some youth were trained to supervise the crop planning. They were to also support them in the field. This enhanced productivity by almost 1.5 times and the community began to take a keen interest in the improved agriculture. Farmers, who earlier sowed limited vegetables in their backyard, started growing vegetables in the medium uplands in the *kharif* season, using new techniques. They also began to have regular meetings, to discuss agricultural issues and review agriculture plans.

In the APC, the farmers began a common nursery and arranged for a common input supply for seeds and fertilizers. They also organized collective marketing. With Petarbar district headquarters only 5 km away, farmers began to take their produce there and were able to get reasonably good rates. Good prices and enhanced productivity have boosted the confidence of the farmers and they are now yearning for more. In an APC meeting, the community agreed that cultivating vegetables was becoming lucrative and that they should look at the *rabi* and summer crops also.

However, two issues hindered cultivation in *rabi* and in summer. First, because no farmer grew crops in those seasons, the land was left free for cattle grazing. To prevent that, farmers would have to invest in fences around

Farmers, who earlier sowed limited vegetables in their backyard, started growing vegetables in the medium uplands in the kharif season, using new techniques

their field and, second, there is no irrigation available in those seasons.

For the first issue, a farmers' rally was organized in the *gram panchayat* by SHG Clusters, where members came together and protested against free cattle grazing. The issue was discussed in the *gram sabha* meeting and a decision was taken that the land should be used for agricultural purposes and a penalty would be levied on the owners whose animals were found straying in others' fields. The farmers could then have fence-free agriculture, even in the *rabi* season, without fear of the crop being mauled by the freely running cattle.

For the second issue, the farmers in Karkatalan discussed that although a perennial *nala* (stream) flowed through the village, only those whose lands were near the *nala* could make use of it and cultivate wheat in winter. Therefore, in their *aam sabha*, the community decided to install a lift irrigation (LI), which could take the water of the *nala* and irrigate all the fields in the village. The LI could be installed as an entry point activity for the Integrated Watershed Development Project (IWMP), which had been sanctioned by the State Level Nodal Agency (SLNA) of the Jharkhand State Watershed Mission (JSWM).

The plan was that the installed LI would be able to irrigate the total command area of 7 ha of up-lands and 2 ha of medium-uplands. The capacity of the low-land well is 550 cu/m and is recharged at an average rate of 4 litres per second (LPS), making it possible to have water available round the year. In the subsequent meetings of the Gram Bikas Samiti (a village-level committee, comprising 10 women and 9 male members, who meet twice a month for the Integrated Watershed

Management Programme—IWMP—discussion) and the SHGs, there was much discussion on the various options available for installing LI. At first, the community thought of installing a diesel-operated lifting device, estimated at around Rs 2 lakhs (grant from IWMP). It came to light that a prior experience of a diesel-operated LI had not been satisfactory because it involved high operating and maintenance costs. The second option was to install an electric pump. After exploring the legalities of installing the electric pump set, it was found that it was not possible for the Village Committee to fulfill the necessary requirements.

First, the community would have to contribute for a 64kv transformer and, second, the Village Level Committee had to be a registered consumer in the Jharkhand Electricity Board, for which they would have to pay monthly rentals. Moreover, power supply was erratic (8–10 hours per day) in the rural areas. Farmers would need an alternative mechanism for irrigating their land (a diesel pump or a generator) during power cuts.

Around that time, the Petarbar PRADAN team visited the Drinking Water Project (Gram Nal Jal Yojna—GNJY) in Koderma and observed a solar power-operated pump being used to lift water and fill a water tank, at a height of 30 m. When the idea was shared in the Village Committee and the SHG, members were easily convinced and were excited about experimenting with solar power-operated LI for their fields.

ADVANTAGES OF A SOLAR POWER LIFTING DEVICE

- ♦ Solar radiation is the largest renewable energy source.

power supply was erratic (8–10 hours per day) in the rural areas. Farmers would need an alternative mechanism for irrigating their land (a diesel pump or a generator) during power cuts

- ♦ Solar energy is more evenly distributed in the world than wind or bio-mass.
- ♦ Solar energy is consistent.
- ♦ It is a well-proven and demonstrated technology.
- ♦ It promises to be the most cost-effective renewable power at high volumes.
- ♦ There is no recurring fuel cost.
- ♦ It is clean, silent and has no moving parts.
- ♦ It is modular, reliable and has low maintenance.
- ♦ It is environmentally sound and does not contribute to greenhouse gas emissions.
- ♦ It can be installed at the point of use and prevents transmission line losses.

Furthermore, solar panels are said to have a life in excess to 20 years and can withstand high winds, severe hail impact, high humidity, freezing and high ambient temperatures. All these discussions were held in the GBS meeting and also in the SHG meetings and it was left on the community to look at the different options. Although the community was apprehensive in the beginning but looking at the benefits and more particularly that there are no recurring fuel costs, they decided to install solar panel-operated pump sets.

The water source is in the lowland, where a 25-ft diameter and 18-ft deep well is excavated by the community through its own contribution under IWMP. The water is then lifted from the well to a distance of 250 m with a 13-m head. The lifting device, as such, will be a 2 KV motor with 11 LPS discharge for a 22-acre command area development. The motor is operated by eight photo voltaic panels of 12 Volts each. The power from these

cells goes to a starter machine, which gives power to the lifting device. The starter has options to be operated in solar as well as on diesel. There are three Quick Release Coupling (QRC) hydrant outlets and a 150-m high density poly ethylene (HDPE) pipe to irrigate the whole area.

The price quoted by the vendor for the solar panels with a pump set was around Rs 2.62 lakhs whereas the total cost for the lifting device (water source, motor, solar panel, starter machine, 250 m of PVC pipes, three outlets) installation was Rs 4.86 lakhs. However, the budget allocated for installing LI, by SLNA, was only Rs 1.96 lakhs.

A revised budget of the whole EPA, with the increased cost of the lifting device, was sent to SLNA for its perusal. A grant of Rs 3.78 lakhs was the minimum requirement for such an experiment. After two months of follow-up, SLNA re-sanctioned the budget of the LI with a solar panel. The community was very excited about the plan and, in return, contributed

In the rabi season (2014), with the support of the solar lifting device, they have also cultivated wheat in 8 acres of land and vegetables such as green peas, carrots, radish, mustard and potatoes in another 3 acres of land

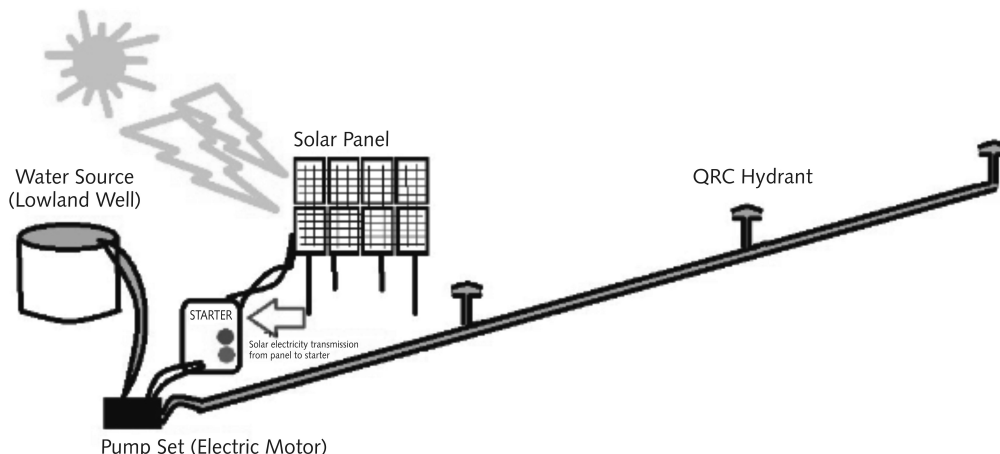
435 man days @ Rs158 per man day. Considerable financial contribution was also made for the creation of the water source. The entire cost of the excavation and materials for the masonry was arranged by the SHGs (Rs 300 was contributed by each family). The pipelines were to be laid from the water source—the lowland well (created by them)

to their upland area. The pipeline was to be 250 m long, with three outlets.

Ramjeet Majhi says, “*Bahut accha hai yeh solar machine. Pehle khali kharif fasal hi le pate the, abhi to rabi mein bhi gehun fasal laga paye hain.*”

Earlier, due to lack of irrigation in the uplands and medium uplands, people preferred to cultivate crops such as pigeon peas and *kulthi*. In the *rabi* season (2014), with the support of the solar lifting device, they have also cultivated wheat in 8 acres of land and vegetables such as green peas, carrots, radish, mustard and potatoes in another 3 acres of land.

Solar Panel-Operated Lift Pumps



Budget for the Solar Panel Lifting Device Submitted to SLNA

Water resource development coupled with lifting device for homestead & mid-upland development to increase cropping intensity to 200%				
Village: Karkatakala; Block: Kasmar; District: Bokaro				
Total area (ha):	9.00			
Number of beneficiaries:	40			
Total project cost (in Rs):	4,86,500			
Support from the EPA fund (IWMP):	3,78,500			
People's contribution:	1,08,000			Amounts are in Rs
No.	Item	Total Amount	Community Contribution	IWMP, EPA Fund
1	Water resource development coupled with lifting device for upland and mid upland development, to increase cropping intensity to 200%.			
1.1	Solar water pumping system (submersible) 1800 Wp	2,62,500	0	2,62,500
1.2	PVC pipes (160 mm dia @ 2.5 kgf/sq cm, 250 m), 150 m HDPE, including fittings @ Rs 210/m	1,05,000	0	1,05,000
1.3	Installation (trench digging, filling etc)	28,000	28,000	0
1.4	Pump protection arrangement	10,000	0	10,000
1.5	Development of existing water source (Dug well of 25 ft diameter x 20 ft depth)	80,000	80,000	0
1.6	Signboard and photograph L.S.	1,000		1,000
Total cost (for the patch)		4,86,500	1,08,000	3,78,500
Grand total				3,78,500

The farmers also plan to plant creepers in the summer crop. "Hum sab Didi log 300 rupay karke jama kiye hain aur bari bari se kaam bhi kiye hain. Hum is machine aur lift ka dekh reh badhiya se karenge. (Each of us SHG members has deposited Rs 300 and has worked for the installation of the solar lift irrigation. We are going to take care of the machine)", the members of Soren Mahila Mandal said.

A member of the Murhu Mahila Mandal said, "Yeh pump chalane mein itna asaan hai ki yeh to hum Didi log bhi chala sakte hain aur ab

dada logon ka asa nahin dekhenge sichayi ke liye (This pump is very easy to handle. We women can also start it; now we don't need to look for help from the men and we ourselves can irrigate the fields.)"

"Is tanr mein hum ek saal chhod ke fasal lagaate the, woh bhi barsaat mein. Abhi toh sichayi ka sadhan hogaya to bahut suvidha hua hai, aram se teen fasal le sakte hain (In this upland, we used to harvest a crop once in two years. Now, with irrigation, we can have three crops in a year.)" said Dinesh Majhi.

Although the command area to be covered under the set-up is 22 acres, at present irrigation is available for half the land. This is because the technology is totally dependent on sunlight, and in winters, bright sunlight is available only for around four hours, which reduces the efficiency of the operating device.

The beneficiaries have divided their plots into groups with fixed time-slots for irrigation. The time-table for irrigating a patch is planned in their committee meeting and is documented in their register. Arjun Majhi said, *"Humein is solar panel se bahut subidha hua sichayi ke liye, lekin surya ki roshni dheeme hone se sichayi dhang se nahin ho pata hai. Hum iske liye transformer aur bijli ke line ke liye gaon wale milke prayas jaroor karenge. (We have benefitted a lot from this solar lifting device. However, sometimes due to lack of sunlight, proper irrigation does not happen. We will now try to get a transformer and an electric connection for our village.)"*

The committee has also designated two persons to take care of the machine and to operate it to provide irrigation to the plots, as per the plan schedule. Patches of 60 decimals were identified. Every day, irrigation is done

The beneficiaries have divided their plots into groups with fixed time-slots for irrigation. The time-table for irrigating a patch is planned in their committee meeting and is documented in their register

patch-wise—on an average, 60 decimals of land are irrigated through one outlet. The patch irrigated on the first day will be irrigated again after 9–12 days. These two persons have also been trained in handling and maintaining the machines. The VLC fixed a minimum charge of Rs 5 per household every month

as an operating cost for the solar panel. The solar panel is also guarded for any mishap or theft during the night.

The VLC is now hopeful that, during the summer, there will be enough scope for agriculture because of the abundance of sunlight. They are very excited about increasing their crop acreage during summer. Earlier, during the summers, the area remained fallow because there was no irrigation facility. This time, however, they have a solar lift which will work more efficiently during summer due to the long hours of daylight; they will have no problem with the water source because it has been created in the lowland.

Elated at the flush of green vegetables in their fields, Dasrath Majhi says, "Now, our mono-cropped lands will be converted into tri-crop lands. The sun will now quench our thirst for water."

Transformation for Rural Development: Collaboration and Co-Production of Knowledge

APRIL 19—21, 2016

INDIA INTERNATIONAL CENTRE, NEW DELHI

This symposium is organised by the Virtual Hub for Rural Transformation. The Virtual Hub for Rural Transformation was established as part of the 1st Symposium and subsequent workshop jointly organised in April 2015 by Charles Sturt University, Australia, Ambedkar University, Delhi and PRADAN, India. (<http://www.csu.edu.au/research/grahamcentre/international/australia-india-project>).

Focussed on transformation in its broadest sense, this symposium harnesses knowledge from all involved with rural development. Increasingly, research 'co-produced' with community partners is seen as an effective means of ensuring research impact, bringing benefits for community, researchers, practitioners and policy makers alike. Examples across countries demonstrate not just its viability and benefits but also the challenges faced in the process. Perhaps these challenges have a potential to build the theory and practice of such an approach to develop new thinking around change and transformation.

The symposium aims to generate new knowledge through and about collaboration. It will bring together seeming polarities to a meaningful dialogue such as theory and practice, knowledge and action, research and intervention, field work and rural immersion, data collection and collective formation, and learning and transformative social praxis. In particular, the symposium will focus on the learnings from experience and various instances of action-ing the idea of collaboration and co-production.

The symposium is meant for people active or interested in this dialogue, including students, researchers, practitioners, academicians, civil society organisations, administrative officers, and policy makers.

In addition to the Symposium, there are two more components of the conference: a number of *capacity building workshops*, a *symposium* with presentations and opportunities to make sense of, and expand on those presentations; and a *workshop* to continue building the Virtual Hub for Rural Transformation.

CALL FOR PAPERS FOR THE SYMPOSIUM

We are inviting original contributions in the form of papers from across fields and countries to delve deeper into questions around collaboration by enunciating instances and generating discussions around rural transformation, collaboration, co-production and practice.

We invite original contributions in response to four broad themes that will form the focus of the conference. Together the themes mark potential for collaboration, concerns and questions put forth by different voices in different contexts, and critical assimilation of these to understand theory and practice.

1. Narratives around collaboration: Experiences of collaborating and sharing the learning for transformative practice and ways ahead for collaboration.
2. Narratives of transformation: Experiences that point towards a reconceptualisation of transformation coming from communities' perspective.
3. New ideas and theory around transformation: building a methodology around transformation.
4. Education and educational processes for transformation: Reflections from field-based classrooms to institutionalize practice emerging from theory and vice-versa.

The papers will be published online as conference proceedings and will subsequently form significant content of the Hub once established.

SUBMISSION GUIDELINES

Please submit details of authors' names, institutions, email addresses with the paper title and a 400-word abstract. Based on the abstract, the Programme Committee will select proposed papers for presentation in the Symposium. The authors will then submit a full paper, which will be peer reviewed by a minimum of two reviewers. Authors of selected papers will take into account reviewer comments in the final submission that will appear in the proceedings.

The paper should be formatted in a single pdf file of not more than 12 pages, in single column 11 point Times New Roman single spaced.

Submission is through EasyChair. You will need to create an account at www.easychair.org. The submission Web site for TRD 2016 is <https://easychair.org/conferences/?conf=trd2016>.

For more information on the symposium, please visit <https://www.csu.edu.au/research/grahamcentre/international/trd2016>

Important Dates	
Last date for submission of abstracts	15 November 2015
Last date for confirmation of acceptance of abstracts	15 December 2015
Submission of full papers	15 January 2016
Last date of reviews to authors	15 February 2016
Last date for submission of final version of selected papers	28 February 2016
Conference and presentation of papers	19 & 20 April 2016

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COMMITTEE**

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Anup Dhar, The Centre for Development Practice at Ambedkar University Delhi (AUD), India

Nivedita Narain, Professional Assistance for Development Action (PRADAN), India

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Professional Assistance for Development Action (PRADAN), India



Jaymani of Chemana village in Patna block, Keonjhar took up the back yard poultry (BYP) activity in 2014 after seeing the economic impact it had on the other families in the neighbourhood. At present, she has 45 birds including five hens as the mother stock. She happily says that she earned Rs 15,000 from BYP in one year and still had 20 birds for home consumption.

PRADAN



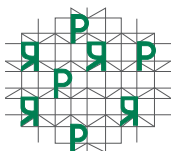
PRADAN is a voluntary organization registered in Delhi under the Societies Registration Act. PRADAN works through small teams of professionals in selected villages across eight states. The focus of PRADAN's work is to promote and strengthen livelihoods for the rural poor. It involves organizing the poor, enhancing their capabilities, introducing ways to improve their income and linking them to banks, markets and other economic services. The professionals work directly with the poor, using their knowledge and skills to help remove poverty. *NewsReach*, PRADAN's bimonthly journal, is a forum for sharing the thoughts and experiences of these professionals working in remote and far-flung areas in the field. *NewsReach* helps them to reach out and connect with each other, the development fraternity and the outside world.

NewsReach is published by the National Resource Centre for Rural Livelihoods, housed in the PRADAN Research and Resource Centre.

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