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Social and economic impacts of PRADAN's Self Help Group Microfinance and Livelihoods Promotion Program
Analysis from Jharkhand, India

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Naila Kabeer and Helzi Noponen

Imp-Act

The Institute of Development Studies,
at the University of Sussex, Brighton BN1 9RE, UK
Tel: +44 (0) 1273 873733, Fax: +44 (0) 1273 621202/691647
Email: Imp-Act@ids.ac.uk Web: www.Imp-Act.org

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1. PRADAN's Approach to Microfinance for Poverty Alleviation and Development

This report sets out the findings from a socio-economic impact study of PRADAN's Self Help Group (SHG) Microfinance and Livelihoods programme carried out in Jharkand, one of the poorest states in India. The study is one component in PRADAN's multi-pronged approach to impact assessment as a partner in the *Imp-Act* Programme. The programme is funded by Ford Foundation and has carried out a variety of impact assessment exercises with 29 partners across the world. Overall support is provided by a research team based at the Institute of Development Studies (IDS), Sussex, University of Bath and University of Sheffield. The aim of the programme has been to promote collaborative efforts among microfinance organisations in different parts of the world in developing impact assessment methodologies, systems and processes that can help to improve their capacity to meet the needs of those they serve and hence have a greater impact on poverty reduction.

PRADAN is a large rural livelihoods development NGO in India reaching over 80,000 poor women and their households in seven of the poorest states in India: they are mainly in north and east India (see Appendix, Figure 1). However, the challenge that PRADAN faces is not fully captured by conventional concepts of poverty. Its membership is drawn not only from some of the poorest households in India but also some of its most socially excluded – those for whom inequalities of various kinds, and in different domains, reinforce and exacerbate each other to create radical forms of disadvantage (Kabeer 2000). Their disadvantage is partly economic; not only does PRADAN work in the poorest states in India, but a recent study which explored PRADAN's outreach in Jharkhand found that PRADAN reached all but the very poorest 3 per cent of the population in the study location which was characterized by very high levels of overall poverty (CGAP study). It is also partly social. PRADAN works with groups which occupy the lowest status within the caste hierarchy of India. As its records show, 55 per cent of its membership is from the scheduled tribes – the most disadvantaged group within the social hierarchy, 13 per cent from the scheduled castes and 29 per cent from other backward castes. By focusing on women within these groups, it focuses on marginalized members of marginalized groups. Finally, PRADAN works with people who tend to live in geographically isolated areas which are poorly served by physical as well as social infrastructure. As a result, they have poor access to either markets or social services. The pace and scale of PRADAN's activities reflects the challenges of working with these radically disadvantaged sections of Indian society.

PRADAN's strategy is premised on the belief that microfinance is not an end in itself, but one of a number of inter-related means for strengthening individual livelihood efforts. Other 'means' promoted by PRADAN include technological assistance in subsistence cultivation, market-based agriculture, forestry, animal husbandry, watershed improvements and the development of non-farm individual and group enterprises.

PRADAN seeks to develop self-help groups (SHGs) of women as the loci of microfinance activities. In other words, it is not an MFO, but an organization that

facilitates the building up of numerous micro MFOs with the support of its field-based staff (D. Narendranath 2001). In this, it differs from other micro finance models, such as those modeled on Grameen Bank, in which the NGO itself operates as the micro finance organization (MFO).

PRADAN has a two-pronged approach to microfinance service delivery for the poor. On the one hand, it works with the existing banking industry seeking to apply pressures and incentives to persuade it to overcome its reluctance to lend to the rural poor. On the other, it works with the rural poor, seeking to build networks of independently-functioning SHGs and link them to the local banking structure. This means going beyond the setting up and stabilization of groups that are able to carry out basic functions of regular and punctual attendance at meetings, on-time savings and loan repayment, record-keeping and election of leaders. It also means increasing their ability to function as alternative microfinance organizations, recognized by local banks as creditable partners.
PRADAN instills strong values of financial discipline (e.g., critical peer vetting of loans, quick group response to individual delinquencies and norms violation), tangible group mutual support for members, trust and fair processes. In addition, to strengthen the capacity of SHGs to learn from each other, PRADAN promotes a system of SHG Clusters. The Cluster is a collective of 10-15 mature SHGs from neighbouring villages, whose selected representatives meet regularly to discuss and deliberate on issues that affect them individually or collectively.

In addition to building SHGs as alternative MFOs, PRADAN seeks to strengthen the economic capabilities of members through a variety of livelihood-focused interventions. PRADAN field staff analyze the local economic base and identify activities with growth potential, such as those with forward or backward linkages for different groups of producers. They may provide 'market' solutions (e.g. broiler chicken marketing outlets) or 'production' solutions (e.g. advanced mushroom spawn cultures). They may also be able to provide 'technological' solutions (e.g. disease-free cocoon testing for silk producers), which increase productivity of groups of local producers. Where infrastructure is lacking, PRADAN cooperates with government and other banking institutions to help supply it (e.g. lift irrigation facilitating production and marketing of vegetables).

Participants for the livelihood programmes are primarily selected from the SHGs. Livelihood interventions are based on analysis of resources and skill availabilities in an area carried out by PRADAN's professional staff and SHG members. Once a livelihood programme is initiated, some non-members also participate but they join an SHG over time. Livelihoods programmes often require the setting up new sets of community organizations such as user groups, co-operatives and so on. These organizations are designed differently and have systems and processes that are not the same as that of the SHGs.

One final aspect of PRADAN's strategy needs to be highlighted. PRADAN does not seek to maintain its relationship with SHGs indefinitely into the future. Its aim is to withdraw once the SHGs are capable of functioning on their own as viable organizations, successfully linked to financial service providers, and able to engage in a process of securing their own strategic interests in the face of structural constraints. The idea of sustainability thus features in PRADAN's philosophy in relation to the institutional sustainability of the SHGs as vehicles for representing the interests of the poor rather than the financial sustainability of PRADAN itself.

2. Description of Jharkhand

Jharkhand was selected for the study because it is the largest field site in which PRADAN has been engaged in the full range of its development activities over an extended period. Jharkhand is a new state which used to be part of Bihar. It is, after Orissa, the poorest state in India. It has a high percentage of tribal people in its population. Although the region used to be characterized by thick and extensive forests, large scale deforestation in the recent past means that only 10-15 per cent of the forest area now remains well stocked. Traditionally a major source of supplemental livelihoods for tribal people, the degradation of forests has had adverse effects on their livelihoods.

The majority of the population live in forest and rural areas. Agriculture is the main source of livelihood and paddy, maize and millet is grown on small parcels of land. Vegetables can be cultivated only on those homestead lands where there are shallow dug wells. Cropping intensity is below 11 per cent with most land cultivated only once a year. Irrigation coverage is below 5 per cent and in some districts it is as low as 0.4 per cent. Though the potential of harnessing the perennial streams for agriculture is very high, they have received little government investment or attention. In this context, all but a few small pockets are susceptible to crop failure in the event of an indifferent monsoon

The uncertainty of agriculture mean that the food security needs of a household can be met through own cultivation for at most six months of the year. As a result, migration to nearby States (West Bengal and the North East) in search of seasonal employment is widespread but exposes migrants to highly exploitative contract system in these areas. Other sources of supplementary income are livestock and non-timber forest produce, including tasar rearing, for tribals in forest villages. Though this area has one of the largest livestock populations in the State, animal husbandry is not a reliable source of livelihood due to the poor quality of animals.

Along with forest degradation and low productivity of the resources which make up local livelihoods, the other key development issue in the region is lack of access to even basic services. Extremely poor infrastructure make the majority of villages inaccessible during the monsoons and public institutions in the region tend to be even less vibrant than in other parts of the State. There is no public health care system, no protected water supply systems and very little education or access to credit. Water-borne diseases, such as diarrhea, dysentery and liver enlargement combine with iodine-deficiency of local streams to contribute to poor health in the area. Malaria is endemic and encephalitis fairly common. Around 15 to 30 per cent of household income is spent on medical care, again highlighting the total absence of any public healthcare system. Literacy, particularly female literacy, is among the lowest in India.

PRADAN has been organizing women's self help savings and credit groups in Jharkhand for the past 15 years as a major component of a larger livelihoods promotion strategy aimed at reducing poverty among very poor and vulnerable households. It combines geographical targeting of poorest pockets of poverty in an area, relying on district indictors, with targeting the poorest households in these areas, using wealth ranking.

Women have been placed at the forefront of SHG activity as well as in planning and implementing its livelihood programmes in order to enhance their economic agency within the family and, as their groups mature, within the wider village community. The formation of secondary level federations of the SHGs in the wider community, it is argued, also further strengthens their solidarity networks and their bargaining power with key development actors such as bankers, block officers and officials of line agencies. This is expected to lead to enhanced status

and voice within the community. PRADAN, therefore, is not only concerned with the impact of its program intervention on the material welfare, livelihood base and financial status of its target households, but also on the capacity of women within its groups to exercise voice and influence within the community.

3. Research methodology

While there is considerable documentation of PRADAN's activities, there had not hitherto been any attempt to carry out a systematic quantitative assessment of the full range of socio-impacts that it hoped to have among its SHGs. Consequently, the decision was taken to carry out a socio-economic survey as one of the activities that PRADAN would undertake under the *Imp-Act* programme. The aim would be to explore possible impacts in a number of areas which directly or indirectly reflected the objectives of the programme, including:

- capacity to meet basic needs
- livelihood base
- asset position
- savings and debt position
- women's voice and agency

The questionnaire was designed to collect quantitative data in these areas as well as background questions regarding village and household characteristics in order to factor in possible contextual differences in the study locations.

The study was carried out in, Godda, Dumka and Banka districts of Jharkhand. The original research design had been based on the idea of comparison between a) long-term PRADAN members with newly joined PRADAN members and b) PRADAN members with a sample of non-members. PRADAN expected to find that membership of PRADAN would be associated with some level of impact and that these impacts would strength with length of membership. In addition, the study was designed to also permit comparison of impacts among PRADAN members who participated only in the SHG program with those who had also participated in PRADAN promoted income generating projects or IGP in order to explore whether impacts observed reflected these different forms of participation.

A simple random sample of 400 members was selected from a total member population frame of over 5,000 members in the three districts. Duration of membership ranged from a few months to over nine years. However, concerns arose that newly joined members might have a different set of starting characteristics from older members, complicating the comparison between long term and new members. There were reasons to expect this. As we noted, PRADAN's strategy had been to organize women from the very poorest households within pockets of greatest poverty in the areas in which it worked.

However, three years ago, an area saturation strategy had been adopted in order to achieve economies of scale and outreach and to meet the needs of all poor households within a particular area. Because new members in an area would only have been organized once the pockets of greatest poverty and the poorest households had been reached, it was logical that they would be better off. As a result, new members in older PRADAN areas, while still far below national poverty lines, are likely to be better off than long term members who had been in far worse conditions when they first joined PRADAN. The longer-term members may have experienced positive impacts but this might not be detected if it had merely helped them to achieve standards of welfare and income reported by the better-off groups who had recently joined PRADAN.

This concern was supported by findings from a number of other studies carried out as part of *Imp-Act* and the problem was handled by dropping the comparison of old and newly joined members. Instead, the impact analyses focused on the comparison of PRADAN members with over three years of membership age and non-members. PRADAN members below three years of age were excluded from the analysis because it was known a priori that they were better off than long-term members and this would bias the results in favor of positive impact for PRADAN members in a comparison with non-members.

To obtain the sample of non-members, a great deal of effort was invested in finding a sample of members with the similar starting points as long-term PRADAN members. From new geographic areas where PRADAN was planning to expand in the near-future, 104 non-members were selected following the same protocol as used for selecting PRADAN SHG members—a wealth ranking of village households in geographically targeted poverty pockets. From a list of 40 expansion villages identified as poverty pockets through secondary research, a random sample of ten villages was selected. Wealth ranking PRA exercises were carried out in each of the ten villages and names in the two groups of very poor households and poor households were selected for interview, provided the household fitted the criteria for PRADAN membership viz. an adult female member able to join a group of 15 similar women and take up livelihood activity.

The sampled women were interviewed in one interview event lasting approximately 30 to 45 minutes in September and October of 2003. The survey team was comprised of educated youth from the area speaking local Hindi dialect and tribal Santhali language. They were non-PRADAN staff locally hired and extensively trained and tested in survey research process, interview skills and the questionnaire instrument itself in class and field practice settings.

4. Characteristics of sample villages and households

The villages covered by the study were located in poor and isolated areas, with few amenities, little infrastructure and barely any basic services (Table 1). Only 28 per cent were connected to a paved road. Seventy per cent of the villages could be reached by some form of transport but 30 per cent could only be reached by footpath. Only 10 households - or 1.4 per cent of the entire sample - had electricity connection.

Some differences between PRADAN villages and households and those of non-members are important to bear in mind when interpreting the impact results reported below. The villages of PRADAN members were located farther away from the nearest town than villagers of non-members: 6.8 versus 5.5 kilometers respectively. However, they tended to be larger with an average of 93 households compared to an average of 60 households for non-member villages. This difference may partly explain some of the significant differences in village amenities between the two groups noted below in Table 1. Villages of PRADAN members had better access to medical care and doctor, mid-wife, vet service availability and amenities of milk vender, telephone booth and community center compared with non-member villages. However, they had poorer access to a primary school.

Table 1: Significant Differences in Village Characteristics and Amenities for Members and Non-Members			

Characteristic / Amenity (within 3 Kilometers of Village)	Non Member Villages	PRADAN Member Villages	Total
primary school *	99.00%	91.10%	93.90%
medical care *	16.50%	32.30%	26.80%
Community center *	42.70%	72.40%	62.00%
doctor available *	0.00%	14.60%	9.50%
mid-wife available *	5.80%	24.20%	17.70%
vet service available *	27.20%	41.10%	36.30%
Milk vender in village*	9.70%	40.10%	29.50%
public telephone in village*	16.70%	29.20%	24.80%

* Significant at .01

There were also some slight differences in personal and household characteristics between the two comparison groups. There are more widows – 21.4 per cent among the PRADAN members compared with non-members at 14.6 per cent, although the difference was not statistically significant. Because of the precarious situation of widows in Indian society, and their general exclusion from social life, this suggests that PRADAN is managing to reach a particularly vulnerable group. However, the presence of widows would tend to somewhat depress possible impact that PRADAN membership might have.

The level of education of sample respondents was very low overall, with 91 per cent having never attended school. Although 11.5 per cent of PRADAN members had some schooling compared to 3.9 per cent of non-members (significant at .05), few had gone beyond three years of education. Given the low numbers of women involved and the few years of attendance, it is unlikely that these differences would affect the impact results.

There was a significant difference in household size with PRADAN member households having an average of 5.5 members compared with only 4.2 for non-member households. There were no significant differences between the two groups in terms of female heads of households, 17.3 per cent, and incidence of widowhood: 19 per cent overall.

However, there was one striking difference between the samples of PRADAN members and non-members which constituted a potential threat to the validity of the impact results. There was a significantly larger number of scheduled caste and scheduled tribe respondents in the sample of non-members compared with PRADAN members (Table 2). There was nearly *three* times the number of tribal women, 58.3 per cent in the non-member sample compared with 20.8 per cent in the PRADAN member sample. There were also more scheduled castes or *dalits*, 20.4 per cent compared with only 4.7 per cent in the PRADAN member sample. This can be explained by the fact that one of the two districts for the expansion area from which the non-member sample was drawn was overwhelmingly a tribal region.

These differences posed a threat to the validity of the results comparing members and non-members, as scheduled caste and tribes tend to make up the poorest and most vulnerable segments of Indian society. In order to deal with this threat to validity, a sub-analysis was carried out comparing scheduled caste and tribe members over three years of membership to scheduled caste and tribe non-members. Its findings will be discussed at a later stage of the report.

Table 2: Caste distribution across sample

Caste	Non	Members	
SC	21	9	30
	20.4%	4.7%	10.2%
ST	60	40	100
	58.3%	20.8%	33.9%
OBC	22	138	160
	21.4%	71.9%	54.2%
General	0	5	5
	.0%	2.6%	1.7%
Total	103	192	295\´
		295	100%
	100.0%	100%	100%

Significant at .01

5. Impact on basic needs and standard of living

We start our analysis with a comparison of general levels of basic needs satisfaction and standard of living among PRADAN members and non-members. Data was collected in the broad areas of food security, shelter and living conditions, ownership of household consumer goods and children's education. Overall, the picture is one of significant poverty for both groups but there were some notable differences.

Food Security

Because PRADAN targets the poorest groups of landless laborers and marginal subsistence producers in rural areas, food security is a persistent problem and therefore a key indicator for impact investigation. Respondents were asked about their experience of food shortage, about diversity of diet and their assessment of their overall food situation. While the majority of households experienced some amount of food shortage over the previous year, 68.8 per cent of PRADAN members had experienced such shortage compared with 91.2 per cent of non-members. In addition, of those who reported food shortage, PRADAN members experienced fewer months of food shortage than nonmembers: 2.8 versus 3.3 months. Both these differences were statistically significant.

Information was collected on weekly consumption of high value nutritious foods such as green vegetables, pulses, meat, fish, milk and eggs. Of these, the highest levels of consumption were reported for the cheaper foods: 96 per cent of the overall sample had consumed green vegetables in the past week and 93 per cent had consumed pulses, with no significant difference between PRADAN members and non-members. While there were much lower overall levels of consumption of costlier food items –only 12 per cent of the sample had eaten meat in the previous week; 8 per cent had consumed chicken; and 4 per cent had consumed eggs – PRADAN members were significantly more likely than non-members to have consumed milk and chicken in the previous week. The higher percentages of PRADAN members consuming milk – 52.6 per cent compared to 18.4 per cent for non-members – can be partially explained by the greater number of milk vendors in PRADAN villages, an indirect result of investment of bank loans by SHG members in livestock rearing.

Table 3: Significant Differences in Food Security and Nutrition for Members and Non-Members

Nutrition Aspect	Non-Members	PRADAN Members	Total
experienced food shortage *	91.20%	68.80%	76.50%
mean months of food shortage *	3.3	2.8	
chicken eaten in last week *	1.90%	10.40%	7.50%
milk consumed last week *	18.40%	52.60%	40.70%
meat eaten last week	9.7%	13.0%	11.9%
fish eaten last week	18.4%	14.6%	15.9%
eggs eaten last week	1.9%	6.0%	4.1%
pulses eaten last week	89.3%	93.2%	91.9%
green vegetables eaten last week	96.1%	95.8%	95.9%

* Significant at .01

Table 4: Overall food situation in past year

	Non members	PRADAN members	Total
As much food as wanted/all types wanted	0 (0%)	1 (0.5%)	1 (0.3%)
As much food as wanted but not all types	5 (4.9%)	43 (22,5%)	48 (16.3%)
Ate less than wanted	14 (13.6%)	47 (24.6%)	61 (20.7%)
Sometimes felt hunger	71 (68.9%)	86 (45%)	157 (53.4%)
Often felt hunger	13 (12.6%)	14 (7.3%)	27 (9.2%)
N	103	191	294

Significant at .01

Shelter and Living Conditions

The data on housing conditions testify to the poverty of both PRADAN members and non-members alike. Over 91 per cent of both groups lived in mud wall houses. Only 3 per cent lived in stone or brick wall houses and 5 per cent lived in cement wall houses. The large majority of houses had mud floors at 98 per cent. However, there were significant differences in the quality of roof material with 56.9 per cent of PRADAN members compared to 31.1 per cent of non-members having roofs made of tile, brick or cement rather than tarps, twigs or thatch. Also significant was the difference in percentage of PRADAN members having a secure tin or wood door compared to no door or a twig or bamboo mat door: 72.1 per cent compared to 38.3 per cent of non-members.

Table 5: Housing Characteristics for Members and Non-Members

Characteristic / Amenity	Non-Members	PRADAN Members	Total
Superior roof material (caprelle, brick, concrete) *	31.10%	56.90%	48.20%
superior door material (tin, wood) *	38.80%	72.10%	60.90%

* Significant at .01

In terms of water and sanitation, only one household had a latrine and one had a bathing space for women. However PRADAN members had improved source of drinking water with a larger number using a hand pump, 49.7 per cent compared with 29.1 per cent for non-members. Fewer PRADAN members, 15.2 per cent, had to rely on pond, stream or other surface water for their drinking water needs compared with 22.3 per cent of non-members.

Table 6: Water source by PRADAN member

Source	Pradan members	Non-members	Total
Pond/ stream/ surface	23	29	52
	22.3%	15.2%	17.7%
open well	44	67	111
	42.7%	35.1%	37.8%
Hand-pump	30	95	125
	29.1%	49.7%	42.5%
Other	6	0	6
	5.8%	.0%	2.0%
Total	103	191	294

Significant at .01

Consumption Assets

Given the precarious food security situation and poor housing conditions that prevailed across our sample population, the very low level of ownership of consumption assets comes as no surprise. Of the 295 respondents, only three owned an electric bulb, no one owned a fan and only one owned a telephone. Just five respondent households owned a sewing machine. There were ten respondents owning a kerosene or gas stove. Table 7 reports only on those assets for which there were significant differences in ownership among PRADAN members and non-members: radio (owned by 17.4 per cent of PRADAN members compared to 3.9 per cent of non-members); bronze or copper utensils (owned by 79.3 per cent of PRADAN members compared with 47.6 per cent of non-members); any other household asset worth more than Rs. 500 in value, most typically a watch or clock (11 per cent compared to 1 per cent).

Table 7: Significant Differences in Household Asset Ownership for PRADAN Members versus Non-members

Household Asset	Non-Members	PRADAN Members	Total
radio-cassette *	3.9%	17.4%	12.6%
bronze-copper utensils *	47.6%	79.2%	68.1%
other household asset over Rs. 500 *	1%	11.1%	7.5%
mean total household assets *	.05	1.2	

* Significant at .01

Education of Children

The ability to educate children is a key social indicator for poor families in India. It signals that households give value to education, that they are able to pay the incidental yet often significant cost of sending children to school such as paying for school uniforms, books, supplies and annual fees and that they are willing to forgo the earnings or household labor contribution of children in order to do so. There was a striking difference in the ability to send children to school for PRADAN members compared with non-members. 57.9 per cent of children aged 5-16 among PRADAN members were attending school compared to 18 per cent of children among non-members. Although gender inequalities in schooling persisted for both groups, there was less evidence of gender discrimination in schooling among PRADAN members: 44 per cent of their girls went to school compared to 67 per cent of their boys while among non-members, 8 per cent of girls went to school compared to 22 per cent of boys (ie. nearly three times as many boys). This result is even more significant given the fact fewer PRADAN villages (91 per cent) had a primary school within a three kilometer distance compared to 99 per cent of non-member villages.

Table 8: Children's Education for PRADAN Members and Non-Members

	Non-Members	PRADAN Members
% of children in school *	18.24	57.96
% female child school attendance *	8.15	43.89
% male child school attendance *	22.22	66.88

* Significant at .01

6. Impact on household livelihoods

In this section we examine the extent to which the higher levels of basic needs and standard of living of PRADAN members compared to non-members could be attributed to increased value and security of their livelihood efforts, which in turn can be traced directly or indirectly to PRADAN's activities. Because PRADAN's main focus is to enable rural communities to improve their livelihood base through micro- finance and technical assistance in specific income generating projects, it was interested in obtaining some feed-back from the assessment exercise as to what it had achieved. Consequently, the socio-economic survey collected detailed data on many aspects of livelihood activities. Respondents were asked about their household's ownership of productive equipment, livestock, land and forest assets. They were also asked about the utilization of these assets especially in terms of cropping or forest collection patterns and agriculture practices.

Changing livelihood portfolios

We first examined the broad portfolio of activities on which households depended and the extent to which PRADAN membership made a difference. We can conceptualize livelihood activities for this purpose in terms of a broad hierarchy in which activities are ranked according to the magnitude and regularity of the returns they provide and the terms and conditions associated with their performance. In the context of Jharkand, one distinguishing feature might be the extent to which an activity involved the expenditure of unskilled physical labor or the expenditure of labor involving some kind of skill. Another might be the extent to which an activity required access to, or control over, an asset, which might be land, capital or equipment. A third might relate to the location of the activity, with the need to migrate in search of work generally ranked lower than activities that can be carried out within the boundaries of one's own village. A fourth might be the nature of the contract with the middleman or employer.

This would meant that activities requiring skills, assets and knowledge which are all likely to yield higher returns will be ranked higher but are less easy for the poor to take up without some external assistance[1]. Clearly, which of the higher ranking activities will be taken up or preferred will depend on a variety of other factors, including local market for products but they are in general preferred to easier entry activities which offer poorer or riskier returns.

On the basis of this hierarchy, membership of a PRADAN SHG does appear to have an impact on household livelihood portfolios. First of all, it leads to an overall reduction in reliance on unskilled labor activities, such as seasonal agriculture wage work, often in nearly states, road construction, coolie work, cart puller or loader, etc. as a source of income and an overall increase in reliance on cultivation on one's own land. Thus, 74 per cent of member households reported reliance on own agriculture as their single largest source of income compared to 33 per cent of non-member households while 44 per cent of non-member households reported unskilled labour as their main source of income compared to 17 per cent of member households.

The relative importance of these activities for member and non-member households was reversed when the second most important sources of income were examined, with a higher percentage of members reporting unskilled labor as their second most important source of income than members and a higher percentage of non-members reporting own agriculture. Nevertheless, a much higher percentage of PRADAN households reported reliance on agriculture as their first or second most important source of income (92 per cent) than did non-PRADAN households (72 per cent) while a much lower percentage of PRADAN households (61 per cent) reported reliance on unskilled labor as their first or second most important source of income compared to non-PRADAN households (70 per cent).

Livestock rearing, like own cultivation, relies on the ownership of an asset, in this case livestock. Over 18 per cent of PRADAN households report it as a primary or secondary source compared to around 10 per cent of non-PRADAN households. Despite their access to microfinance credit, PRADAN members had lower numbers engaged in non-farm enterprises for their primary activity at 4.2 per cent compared to non-members at 10.7 per cent. However, if both primary and secondary sources of income are taken into account, non-farm enterprise is equally important for both groups. Finally, the larger percentage of non-members depending on forest collection compared with PRADAN members can be explained by the higher percentage of tribal households among non-members.

Adivsasi or tribal populations have traditionally earned their livelihoods in forest regions of India.

While we will examine these changes in livelihood patterns in greater detail below, one other indicator of change relates to migration behavior. While migration can have different meanings in different contexts, in the context of Jharkhand, it is largely undertaken on a seasonal basis in response to the lack of locally available employment opportunities. The difference in number of migrants was not significantly different for the two groups of households: 0.4 migrants on average for PRADAN member households and .3 for non-members. However, there was a significant difference in the duration of migration: members of PRADAN households migrated for an average of 5.4 months compared to 7 months for non-PRADAN households (significant at .10).

Table 9a: Primary and secondary livelihood activities of survey households

	Primary activities			**Secondary activities**		
	Non-member	Member	Total	Non-member	Member	Total
Agriculture	34	140	174	41	35	76
	(33%)	(74%)	(59%)	(42%)	(19%)	(27%)
Livestock rearing	1	3	4	9	34	43
	(1%)	(2%)	(1%)	(9%)	(18%)	(15%)
Forest collection	10	1	11	14	10	24
	(10%)	(1%)	(4%)	(14%)	(5%)	(9%)
Non-farm enterprise	11	8	19	4	18	22
	(11%)	(4%)	(7%)	(4%)	(10%)	(8%)
Labor activities	45	33	78	27	85	112
	(44%)	(17%)	(27%)	(28%)	(46%)	(39%)
Other	2	5	7	2	5	7
	(2%)	(3%)	(2%)	(2%)	(3%)	(3%)
Total	103	190	293	97	187	284
	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)

Significant at .01

Landed assets and agriculture practices

Further information regarding the impact of PRADAN's support for household livelihoods is provided by examining differences in assets of various kinds between PRADAN and non-PRADAN members. We start with land ownership and agricultural practices. We find that PRADAN households had more plots of agricultural land "available" for household use on average than did non-PRADAN households (0.72 compared to 0.08). This included owned land, leased in land, encroached upon land and family land to which they had "use" rights but had not yet inherited. Of this, 0.32 plots were irrigated and 0.43 were rain-fed. Clearly, non-members had far fewer irrigated plots, given that they had few plots.

These figures partly explain why PRADAN households were more likely to rely on agriculture as a primary source of income. PRADAN is likely to have had a role in explaining why members had more land. Its livelihood interventions have placed

a great deal of emphasis on mobilizing member's SHG loan for improved agricultural and land use practices. It has also undertaken many watershed projects aimed at wasteland conversion. SHG members have been helped to reclaim previously owned wasteland plots through watershed planning combined with clearing, bunding, leveling and the addition of soil amendments. Access to savings and credit and PRADAN livelihood land-based assistance may also have enabled PRADAN members to recover previously mortgaged land, to avoid pledging land during times of household economic crises and to purchase or lease-in extra plots of land.

Table 10. Available land and available irrigated land

	Non-Members	**PRADAN Members**
total available land plots *	0.08	0.72
total rain fed land plots *	0.05	0.43
total irrigated land plots *	0.03	0.32

* Significant at. 01

PRADAN's support for household livelihoods also takes the form of promoting improved agricultural practices. We see the effects of this in Tables 11, 12 and 13. PRADAN members were able to use their land more intensively by growing a greater variety of crops (e.g. grains, pulses, vegetables, oilseeds, or fruits): the average total was 2.6 crops for members versus 2.2 types for non-members. A significant number of PRADAN members – 95.8 per cent compared to 86.4 per cent of non-members – grew staple grain crops. More PRADAN members grew higher value vegetable and fruit crops at 60.8 per cent and 10.4 per cent respectively, compared to 33 per cent and 2.9 per cent of non-members.

While a larger number of non-members grew oilseeds– 39.8 per cent compared with 21.4 per cent of PRADAN members – it is important to note that there are several local oilseed crops which are extremely low value so that their cultivation can be regarded as a sign of distress. The oil seed "Niger", which can grow in very dry, barren land, is a very popular crop for poor cultivators. PRADAN is helping farmers use these lands in growing high value crops such as pigeon pea (Arhar) and also in Tasar plantations.

Overall, it appears that members report a higher level of crop diversification than non-members but it is important to bear in mind that it is the value of crops grown rather than the variety which is likely to signal an improvement in livelihoods in this region. Poorer farmers will often opt to grow a variety of crops to counter uncertainty of returns.[2]

PRADAN members were also able to plant and harvest more times than non-members in a year having 1.6 versus 1.3 grain harvests and 1.4 versus 1.2 vegetable harvests per year compared with non-members. PRADAN members also used more beneficial agriculture techniques on average, 2.2 compared to 1.1 for non-members. PRADAN member's use of fertilizer was one third higher, at 92.2 per cent, compared to only 68.9 per cent for non-members. Their use of pesticides was more than eight times greater than non-members. They were three times more likely to use hybrid seeds and four times more likely to use irrigation and hired labor compared with non-members.

Productive Equipment Assets

As might be expected, given the context of poverty in which PRADAN is working, there is a very low overall level of ownership of productive assets. Of the 295 households, only three owned a cycle rickshaw, two households owned a trolley, and two owned a motorcycle. Only three households owned a field sprayer. Thirteen households owned a bullock cart, but there were no significant differences between PRADAN members and non-members. No one owned a power tiller or a chopper machine or a tractor asset.

The most common productive asset was bicycle and there were striking differences in the numbers of PRADAN members owning a bicycle – 61.5 per cent compared to only 23.3 per cent for non-members. The most significant asset whose ownership is linked to the ability to grow high value fruits and vegetables and to have more crops per season is a pump set. More PRADAN members owned a pump set – 9.4 per cent compared to only 1.9 per cent for non-members. Overall, PRADAN members had higher average total of productive assets, .8 compared to .3 for non-members. PRADAN members have access to regular savings and low cost credit to make these asset purchases or avoid mortgaging them in times of economic stress. In addition, PRADAN has put particular emphasis on lift irrigation projects, which may explain the higher number of pump sets among its members.

Table 11: Significant Differences in Cropping Patterns

Crops / Techniques	Non-Member	PRADAN Member	Total
grains grown *	86.40%	95.80%	92.50%
oilseeds grown *	39.80%	21.40%	27.80%
vegetables grown *	33.00%	69.80%	56.90%
fruits grown **	2.90%	10.40%	7.80%

Table 12: Differences in total crop harvests

	Non-Members	PRADAN Members
number of grain harvests *	1.3	1.6
number of oilseeds harvests **	1	0.91
number of vegetables harvests **	1.2	1.4
total types of crops grown *	2.2	2.6
total agriculture techniques used *	1.1	2.2

Table 13: Differences in Farming Techniques Used

Crops / Techniques	Non-Member	PRADAN Member	Total
used hybrid seeds *	9.70%	33.90%	25.40%
used fertilizer *	68.90%	92.20%	84.10%
used pesticides *	3.90%	33.90%	23.40%
used irrigation *	16.50%	58.30%	38.50%
used hired labor *	10.70%	43.50%	28.00%

Table 14: Significant Differences in Productive Asset Ownership			
Productive Asset	**Non-Members**	**PRADAN Members**	**Total**
pump set *	1.9%	9.4%	6.8%
bicycle *	23.3%	61.5%	48.1%
Mean total productive assets *	.3	.8	

Significant at .01

Livestock Assets

As we saw, a much higher percentage of PRADAN households had diversified into animal husbandry, primarily as an important secondary source of income, than non-PRADAN households. Table 15 confirms that PRADAN households had a greater number and diversity of livestock assets compared with non-members. More PRADAN members owned high value large livestock important to subsistence production and home consumption such as cows, 60.9 per cent, bullocks, 65.6 per cent and buffaloes, 17.2 per cent, compared with non-members at 36.9 per cent, 35.9 per cent and 4.9 per cent, respectively. More members also owned goats – 60.4 per cent compared to 27.3 per cent for non-members – which are often used as a source of savings in lean times. The predominance of scheduled caste and tribes in the non-member sample explains the larger numbers owning pigs – 31.1 per cent compared with PRADAN members. Scheduled caste and tribe members were also more likely to use their SHG loans to purchase cows, 9.4 per cent and bullocks, 9.7 per cent, than members as a whole.

About 36 per cent of households owned poultry with no significant differences between groups. There was a difference in the quantity of poultry assets owned with PRADAN members owning, 4.1 versus 2.7 birds compared with non-members. Even though fewer PRADAN members owned pigs compared with non-members, they did own a larger quantity, 2.2 compared with 1.3 for non-members. Overall, PRADAN members owned 2.7 types of animals compared with 1.8 types for non-members. The also had a greater total number of animals at six on average compared to 3.7 for non-members. These were local variety of animals as the ownership of higher value hybrids was virtually non-existent among either group.

These differences in ownership of livestock are likely to partly reflect members availing themselves of their access to loans. However, they are also likely to reflect active encouragement that PRADAN workers have given to investment in various assets which are likely to put livelihoods on a more secure basis. While there is no direct intervention by PRADAN in livestock activities, as there is for instance in Rajasthan, investment in livestock provides an important buffer against crisis.

Table 15: Significant Differences in Livestock Ownership for Members and Non-Members			
Livestock Asset	**Non-Member**	**PRADAN Member**	**Total**

cow *	36.90%	60.90%	52.50%
buffaloes *	4.90%	17.20%	12.90%
bullocks *	35.90%	65.60%	55.30%
goats *	27.20%	60.40%	48.80%
pigs *	31.10%	13.60%	19.70%
other animal *	1.00%	10.40%	7.10%

* Significant at .01

Table 16: Significant Differences in Quantities of Livestock Owned		
Livestock Asset	**Non-Member**	**PRADAN Member**
local poultry **	2.71	4.08
local pigs *	1.31	2.19
total types of animals *	1.82	2.66
total local animals *	3.74	5.98

* Significant at .01
** Significant at .05

Forest Collection

Collecting items from the forest was either a primary or secondary livelihood activity for 25 per cent of the non-member sample, compared to less than 6 per cent for PRADAN members. This can be explained because of the large number of *adivassi* or scheduled tribe households among the sample of non-members who traditionally earned their livelihoods from the forests. It is a more laborious and precarious means of livelihood because of extreme population pressure on fragile and often degraded natural environments and state ownership of forest areas and conflict over use rights of indigenous communities. It is not surprising then that more non-members collected various items such as fuel wood, trees, *mahua* leafs and fruits compared with PRADAN members (see Tables below). Overall, non-members collected 2.4 forest items compared with an average of 1.4 for PRADAN members. They are engaged in the collection of fuel wood, tree cutting and *mahua* collection for more months of the year than PRADAN members.

Table 17 : Significant Differences in Forest Collection Practices for Members and Non-Members			
Forest Product	**Non-Members**	**PRADAN Members**	**Total**
collects fuel wood *	85.40%	52.40%	63.90%
tree sale *	24.30%	3.10%	10.50%
collects mahua *	40.80%	19.90%	27.20%
collects leaf material *	48.50%	32.50%	38.10%
collects wild fruits **	9.70%	4.20%	6.10%

* Significant at .01
** Significant at .05

Table 18: Significant Differences in Quantities of Forest Collection Practices for Members and Non-Members		
Forest Product	**Non-Members**	**PRADAN Members**

months of fuel wood collection***	4.4	3.53
months of tree sale collection ***	5.36	2.43
months of mahua collection **	1.18	1
total types of forest products *	2.38	1.36

* Significant at .01
** Significant at .05
*** Significant at .10

A sub-analysis of scheduled caste and tribe women in the sample revealed a similar pattern of greater number of forest items collected for scheduled caste and tribal non-members, 2.4, compared with scheduled caste/tribal PRADAN members at 1.9 (significant at .01). Appendix 1 also shows a greater number of scheduled caste/tribe non-members collecting fuelwood, fodder, tree sale, mahua and wild fruits compared with their PRADAN member counterparts. They also had fewer months of fuelwood, fodder and mahua collection than members. It appears that PRADAN membership is associated with a reduction of reliance on forest collection activities as a source of livelihoods for both tribal and non-tribal groups.

7. Savings and Debt

Patterns of savings and debt are of particular interest in investigations of the impact of MFOs because of their strategic focus on providing alternative financial services to the poor. In the case of PRADAN, the strategy in question is promoting access to savings and credit initially through the self help group funds and subsequently through building linkages with the government banking sector. It is important to appreciate that this is a context that is characterized overall by very limited avenues for savings by poor households. The findings of the survey suggest that as far as impact in relation to savings was concerned, PRADAN members not only reported higher levels of saving on average but also held their savings in a greater variety of forms, an important component of their risk-diversification strategies.

The very limited avenues available for savings is evident in Table 19. All PRADAN members of course held savings in the SHG fund, which was an avenue for savings not available to non-members. Only seven of the total 295 households in the survey (ie. 2%) saved in a bank[3], and the differences between groups were not significant. No household in either group saved in the post office or through agent or moneylender. Just two households saved in committees. Only 3.6 % of PRADAN members, and no non-members, held savings in insurance schemes. More PRADAN members held cash savings at home, 16.7% and in jewelry, 28.6% compared to 4.9% and 12.6%, respectively for non-members. PRADAN members also had a higher level of savings in jewelry, Rs. 852 versus Rs. 461 for non-members. Savings in small animals or grains proved to be significant avenue of savings especially for non-members lacking access to SHG savings opportunities. Over half on non-members, 52.4 per cent saved in this manner compared to 40.1 per cent of PRADAN members.

Table 19: Significant Differences in Savings Practices for Members and Non-Members

Savings Method	Non-Members	PRADAN Members	Total
Saving with SHG	0%	100%	
cash at home *	4.90%	16.70%	12.50%
jewelry *	12.60%	28.60%	23.10%
small animals / grains **	52.40%	40.10%	44.40%
insurance **	0.00%	3.60%	2.40%
amount saved in jewelry ***	460.83	851.82	
total household savings *	803.08	1750.03	

* Significant at .01
** Significant at .05
*** Significant at .10

The respondents were asked also about different sources from which their households borrowed. Not surprisingly, there were striking differences in the sources reported by PRADAN and non-PRADAN members. The largest number of PRADAN members borrowed from the SHG fund – 74 per cent – followed by SHG-bank linkage: 43.2 per cent. These options were not available to non-members. Instead, the largest number of non-members borrowed from moneylenders at 60.2 per cent. In contrast, only 23.4 per cent of PRADAN members still relied on high interest moneylenders for their credit needs. There were no significant differences between members and non-members in the numbers of households borrowing from other sources. Overall, the number of sampled households who used family or friends was 16.6 per cent; merchants, 13.2 per cent; patron or employer credit, 7.5 per cent; banks, 6.1 per cent; coop credit, 1.4 per cent; and other sources, 1.7%, for their credit needs.

Table 20 : Money Lender Debt by PRADAN Member

	Non-member	Member	Total
Borrowed from money-lender	62 60.2%	45 23.4%	107 36.3%
Did not borrow from moneylender	41 39.8%	147 76.6%	188 63.7%
Total	103 100.0%	192 100.0%	295 100.0%

Significant at. 01

Table 21 reports on the debt position of PRADAN and non-PRADAN households. PRADAN members had higher overall levels of debt, Rs. 4141, compared with non-members, Rs. 1731. The same magnitude of difference in debt level between the two groups was found in the average amount of the largest loan taken in the last year, Rs. 2395 for PRADAN members versus Rs. 970 for non-members. Interestingly, however, interest rates associated with loans from 'family/friends' carried a much higher interest rate for non-PRADAN members than for PRADAN: the difference may either reflect a greater reliance by PRADAN members on family and friends or the willingness of relatives and friends to charge lower interest to PRADAN households because risks were perceived to be

lower.

Table 21: Total Debt for PRADAN Members and Non-Members		
	Non-Members	**PRADAN Members**
total household debt *	1731.29	4141.27
amount of largest loan taken last year *	970.35	2394.95
amount owed to bank *	3166.67	10076.92
amount owed to friend / family **	825	3427.74
annual interest rate for friend / family **	67.29	29.93

* Significant at .01
** Significant at .05

Table 22 shows the source for the largest loan taken in the past year while Table 23 reports on the reasons for taking the loan. Once again, the reliance of non-members on high-interest moneylender loans is striking compared to the PRADAN members who are able to access loans from their SHG fund or SHG-bank link.

Table 22: Source of the largest loan taken in past year

Source	Non-members	Members	Total
SHG group	0	62	62
	.0%	35.6%	24.8%
SHG Bank	0	48	48
	.0%	27.6%	19.2%
Bank	1	5	6
	1.3%	2.9%	2.4%
Cooperative	0	1	1
	.0%	.6%	.4%
Money lender	51	29	80
	67.1%	16.7%	32.0%
Merchant	6	6	12
	7.9%	3.4%	4.8%
Patron/ Employer	4	3	7
	5.3%	1.7%	2.8%
Friend /Family	13	15	28
	17.1%	8.6%	11.2%
Other	1	5	6
	1.3%	2.9%	2.4%
Total			

Significant at .01

Table 23 shows striking differences in the reasons for being in debt for the two groups. More PRADAN members borrowed for investment reasons, 42.4 per cent,

compared to only 7.9 per cent for non-members. In contrast, non-members tended to borrow for economic stress-related reasons, such as illness, 40.8 per cent, and to meet basic needs when income or savings were inadequate, 22.4 per cent. The number of PRADAN members borrowing for these distress-related reasons was much less at 19.2 per cent and 8.7 per cent respectively.

Table 23: Primary reason behind largest loan taken last year

	Non-members	Members	Total
Investment	6	73	79
	7.9%	42.4%	31.9%
Illness	31	33	64
	40.8%	19.2%	25.8%
Death	3	6	9
	3.9%	3.5%	3.6%
Marriage	5	20	25
	6.6%	11.6%	10.1%
Other rituals	3	4	7
	3.9%	2.3%	2.8%
Education	0	2	2
	.0%	1.2%	.8%
Basic needs	17	15	32
	22.4%	8.7%	12.9%
Shelter related	1	8	9
	1.3%	4.7%	3.6%
Crisis	2	3	5
	2.6%	1.7%	2.0%
Urgent debt repayment	1	1	2
	1.3%	.6%	.8%
Other	7	7	14
	9.2%	4.1%	5.6%
Total	76	172	248
	100%	100%	100%

Significant at .01

It is interesting to note that even for the 23.4 per cent of PRADAN members were still in debt to high interest moneylenders, the main reason for the debt was investment purpose, at 23.9 per cent, compared to 3.4 per cent for non-members. Other reasons for PRADAN members still being in debt to moneylenders did relate to stress reasons including illness at 19.6 per cent, and death and basic needs each at 10.9 per cent and marriages at 15.2 per cent. It is not clear whether this is continued use of moneylender loans by PRADAN members or that a quarter of PRADAN members have yet to clear previous moneylender loans since joining PRADAN.

One reason that SHG members continue to go to moneylenders for investment loans could relate to continued barrier to accessing bank loans. Although the banking sector has started lending to the SHGs, they remain relatively

unresponsive to their needs. This is a nation-wide phenomena. Bankers have come under pressure from government to lend to SHGS, but they have not embraced the policy fully.

Table 24 : Use of loans from money lenders

	Non members	PRADAN hhs	Total
Investment	2	11	13
	3.4%	23.9%	12.4%
Illness	28	9	37
	47.5%	19.6%	35.2%
Death	2	5	7
	3.4%	10.9%	6.7%
Marriage	4	7	11
	6.8%	15.2%	10.5%
Other social rituals	1	0	1
	1.7%	.0%	1.0%
Education	1	0	1
	1.7%	.0%	1.0%
Basic needs	16	5	21
	27.1%	10.9%	20.0%
Shelter related	1	4	5
	1.7%	8.7%	4.8%
calamity	0	3	3
	.0%	6.5%	2.9%
Urgent debt repayment	1	0	1
	1.7%	.0%	1.0%
Other	3	2	5
	5.1%	4.3%	4.8%

8. Impact on women's knowledge, awareness and agency

PRADAN targets poor rural households and works with both men and women in its development programs, especially its sector-specific income generating projects. For the SHG savings and credit program, however, PRADAN targets women only. This is done on both instrumental and equity grounds. On instrumental grounds, PRADAN has found, like many other microfinance organizations working with the poor, that women are more likely to attend group meetings and observe group norms and processes. They are also more disciplined in making regular savings and loan payments. On equity grounds, PRADAN notes that women are more disadvantaged relative to men both within their households and in the larger community. They have fewer entitlements and they experience greater inequities, both in access to basic needs of food, health care, education as well as in access to the material means by which they could meet these needs, such as ownership of land, shelter or productive assets. Women also have less

voice in household decision-making and less influence in community affairs and the political sphere.

Participation in non-family groups such as the SHG and cluster organization, interactions with PRADAN professional, bankers and local development officials, however, has been argued by many to have a transformative effect on women participants of microfinance programs. We avoid the language of 'empowerment' here partly because of lack of clarity around the concept – it has come to be used to refer to any form of positive change associated with women – and because it is difficult to reduce to a measurable set of indicators. The question we explore instead is the following: has participation in PRADAN's SHG program brought about changes in women's knowledge, awareness and capacity for agency? We attempted to answer this question by examining a variety of areas where such change was likely to be found; mobility in the public domain, awareness of public services, practical skill development, awareness of health issues, gender relations and household decision-making.

Participation in public institutional life

There were low levels of participation in the public institutional life for both groups, but there was evidence of statistically significant differences in participation in certain forms of public life. Across the entire sample only 6.8 per cent of women had approached a government official in the past year to obtain services, solve a problem or obtain eligibility for a program. A very low number of women, 7.5 per cent, had attended a community meeting in the previous year. This low figure may partially be explained by the fact that the traditional *panchayat* system is not functioning in Jharkhand so village level gram *sabha* meetings are not being held. However, 11 per cent of PRADAN members attended such a meeting compared to just 1 per cent of non-members, a statistically significant difference.

While only 1.7 per cent of the total sample were members of a village committee, 3 per cent of PRADAN members were members compared to none of those who were not in PRADAN. While just 11 per cent of the total sample had approached a bank for an individual loan, 15 per cent of PRADAN members had done so compared to 2.3 per cent of non-members, a statistically significant difference. This may be indicative of capacity to use own initiative if increased exposure to banking system through the SHG-bank linkage process encouraged women to access individual lending through the SGSY or some other scheme.

Table 25: Participation in public institutional life

	Non-Members	**PRADAN Members**	**Total**
attended community meeting *	1.00%	11.00%	7.50%
member of a committee ***	0.00%	2.60%	1.70%
approached a bank for individual loan *	2.3%	15.3%	11.2%

* Significant at .01
*** Significant at .10

Skills, knowledge and awareness

The percentages of PRADAN members reporting the attainment of various skills was generally higher than those reporting participation in public institutions and there were striking differences with non-members. Forty per cent of PRADAN members knew how to sign their names compared to 3 per cent of non-members.

While the vast majority of women in the sample – 97 per cent - could recognize currency notes, a much higher percentage of PRADAN members were able to count large currency: 47 per cent compared to 29. per cent. Almost twice the percentage of PRADAN members, 45.8 per cent, versus 26.2 per cent for non-members could calculate interest on loans. Overall PRADAN members knew 2.3 tasks compared to 1.5 for non-members.

Table 26: Significant Differences in Skills for Members and Non-Members

	Non-Members	PRADAN Members	Total
knows how to sign name *	2.90%	40.10%	27.20%
know how to count large currency *	29.10%	46.90%	40.70%
knows how to calculate interest *	26.20%	45.80%	39.00%

* Significant at .01

Table 27 reports on statistically significant differences in levels of awareness and knowledge between PRADAN members and non-members about a variety of issues which had implications for women's capacity to act on their own behalf and on behalf of their family. The first set of issues concern government policies and programmes. We find that 36 per cent of PRADAN members knew the legal age of marriage compared to 10 per cent of non-members. Sixty per cent knew about the government's widows' pension scheme compared to 38 per cent of non-members. None of the non-members were aware of the government's SGYS poverty alleviation program which involved SHGs while 4 per cent of PRADAN members were aware of it. A greater number of non-members, however, were aware of the BPL or Below Poverty Line list entitling certificate holders to eligibility for poverty programs and other subsidies: 57 per cent compared to 42 per cent for PRADAN members. There were no significant differences between the two groups in the numbers who knew about minimum wage (19.3 per cent of the overall sample) and insurance programmes for the poor (3. per cent of overall sample).

The other issues dealt with in Table 27 concern health and family planning. Once again, PRADAN members demonstrated higher levels of awareness. Sixty per cent of members knew the causes of malaria compared to 38 per cent of non-members; 42 per cent knew the causes of diarrhea compared to 30 per cent of non members. Sixty four per cent were aware of family planning methods compared to 51 per cent of non-members[4]. More than twice the number of PRADAN members were aware of the recipe and use of oral re-hydration therapy (43 per cent and 18.4 per cent for non-members). Both groups were equally aware at 70 per cent of the immunization schedule for children to prevent diseases.

There was a significant difference in the total number of health issues known by PRADAN members, 3.2 versus 2.1 for non-members. The high levels of awareness around health issues may not be an organization-wide finding. PRADAN staff in the area where the survey was carried out had organized local health departments to hold a number of health camps in the area after noting the effect of the high incidence of malaria on SHG meeting attendance and loan repayments.

Table 27: Significant Differences in Social and Health Awareness for Members and Non-Members

	Non Members	PRADAN Members	Total
aware of legal age of marriage *	9.70%	35.90%	26.80%
aware of BPL List *	57.30%	42.20%	47.50%
aware of widows pension *	37.90%	60.20%	52.40%
aware of SGYS **	0.00%	3.60%	2.40%
aware of family planning methods **	50.50%	63.50%	58.90%
aware of malaria causes *	37.90%	60.40%	52.50%
aware of diarrhea causes **	30.10%	41.70%	37.60%
aware of oral re-hydration therapy *	18.40%	42.90%	34.40%

* Significant at .01
** Significant at .05

Table 28: Total Health Issues Known for PRADAN Members and Non-members

	Non-Members	PRADAN Members
total tasks known *	1.54	2.3
total health items known *	2.14	3.16

* Significant at .01

Gender relations within the household

Finally, we explored the possibility of differences in gender relations within the household through a series of questions about how decisions in relation to issues which had a bearing on women's own well-being and choices or were indicative of their role in a critical area of decision-making. For certain areas of decision-making, a gendered pattern of decision-making emerged which was very similar for both PRADAN members and non-members. These non-significant results are reported in Table 29. We find that on issues such as taking a loan, asset purchase, child's education and livelihood choices, women made the decision on their own in 20 per cent of the households, their husbands made the decision on their own in 15-26 per cent of households. In 45-56 per cent of households, the decisions were made jointly while 'others' made the decision in 8 per cent of the households.

Table29: Non-significant Results for Household Decision-making for PRADAN Members and Non-Members

	woman	husband	joint	Others
Taking loans	20.1%	26.6%	44.7%	8.5%
Asset purchase	21.4%	9.4%	51.0%	8.2%
Child's education	19.8%	15.6%	56.1%	8.4%
Livelihood choices	21.1%	17.7%	53.1%	8.2%

However, there were two issues where there was a statistically significant difference in the role played by PRADAN members and non-members but the results were not positive for PRADAN. Non-members were more likely to make the decision to visit the natal home on their own (35 per cent) than PRADAN members (29 per cent). The pattern for husband and joint decision on natal

visits was the same so the number of others, presumably in-laws, making these decisions for PRADAN members, accounts for the difference. For family size decisions, there were much fewer women making the decision alone, 10 per cent in either group. There were more males, 8.9 per cent making sole family size decisions for PRADAN members compared to only 1.1 per cent for non-members, while joint or others made up the balance.

Table 30: Visiting respondent's natal family decisions by PRADAN member

	Non-members	Members	Total
Respondent	35	54	89
	36.1%	28.6%	31.1%
Husband	22	41	63
	22.7%	21.7%	22.0%
Joint	39	75	114
	40.2%	39.7%	39.9%
Others	1	19	20
	1.0%	10.1%	7.0%

Significant at .05

Table 31: Family size decisions by PRADAN member

	Non-members	Members	Total
Respondent	9	18	27
	9.8%	10.7%	10.4%
husband	1	15	16
	1.1%	8.9%	6.2%
joint	81	124	205
	88.0%	73.8%	78.8%
Others	1	11	12
	1.1%	6.5%	4.6%

Significant at .01

A final set of questions to explore the issue of women's agency within the home related other aspects of gender relations within the home. Here the evidence was more positive. There was little evidence of any difference in the incidence of domestic violence between members and non-members with an overall incidence of 9 per cent. However, PRADAN members reported experiencing less pressure to have male children: 8 per cent compared to 15 per cent among non-members. Sixty five per cent of PRADAN members kept a portion of household income for their own use compared to 51 per cent of non-members.

Table 32: Pressured for bearing sons by PRADAN member

	PRADAN member	Total

			no	yes	
pressure for bearing sons	No	Count	81	166	247
		% within PRADAN member	85.3%	92.2%	89.8%
	Yes	Count	14	14	28
		% within PRADAN member	14.7%	7.8%	10.2%
Total		Count	95	180	275
		% within PRADAN member	100.0%	100.0%	100.0%

Significant at .10

Table 33: Keeps a portion of family earnings for own use by PRADAN member

			PRADAN member		Total
			no	yes	
keeps a portion of family earnings for own use	No	Count	50	68	118
		% within PRADAN member	49.0%	35.4%	40.1%
	Yes	Count	52	124	176
		% within PRADAN member	51.0%	64.6%	59.9%
Total		Count	102	192	294
		% within PRADAN member	100.0%	100.0%	100.0%

Significant at .05

To sum up, therefore, the differences in various indicators of women's skills and knowledge and in certain aspects of gender relations suggested that PRADAN had played some role in addressing gender inequalities within the household and community. On the other hand, the very small numbers of women reporting a positive impact in relation to some of these indicators, and the apparent absence of change in others, suggest that women's empowerment is not an automatic gain from participating in PRADAN and that there is scope for addressing it far more explicitly than has been done in PRADAN.

Before we conclude this section of the analysis, it should be noted, bearing in mind the threat posed to the validity of our comparison of PRADAN members and non-members by the very much higher percentage of scheduled tribe/caste households represented in the non-member group, a sub-analysis was carried out of all these comparisons separately tribal members and non-members. Evidence of impact was very similar to, and often stronger than, for the more aggregated analysis so that differences in caste background do not affect the overall impact story. The findings will be included in a later version of this paper.

9. Impact Results for IGP versus SHG Participation

We have not differentiated in the analysis so far between different categories of PRADAN members but there was interest on the part of PRADAN to understand better what the value-added of its income promotion activities were on women SHG members. Consequently, in this final section we compare impacts for those PRADAN members who participated only in the self help group program and those who participated in both the SHGs as well as in one of PRADAN's income promoting activities. We were able to do this because of the total PRADAN

members sampled, 31.5 per cent were also involved in IGP activities. The numbers involved in *tasar pre cocoon* activities was 7.6 per cent, *tasar post cocoon*, 4.1 per cent, dairy, 1.3 per cent, sugarcane, 1.3 per cent, Pigeon pea (*arhar* pulse), 14.5 per cent, and lift irrigation for vegetable cultivation, 7.6 per cent.

There were positive results in terms of improved agriculture livelihood activities and better savings and credit positions for SHG women who also participated in IGP. In addition, IGP participants were also found to exercise greater agency in terms of participating in public institutional life. They were also more active in decision-making, an area of impact that was rather weak in the comparison of members versus non-members.

The table below summarizes the significant differences, both positive and perverse, for IGP participants compared with SHG only participants. See Appendix 2 for the data tables. IGP participants had larger houses and more positive food situation compared with SHG participants only. They also were more likely to have poultry assets and other productive assets. They had more land assets of all types and were more likely to use hybrid seeds compared with SHG members. They were also more likely to collect wild cocoons but this can be explained by one of the major IGP activities of pre-cocoon operations of *tasar* silk production. Overall they were more likely to be landed farmers augmenting their primary activity with non-farm enterprises or labor activities. There were no significant differences in the level of migration for work, however, more IGP women members migrated compared to SHG only.

Table 34 : Significant Results for IGP Members versus SHG Only Members

*** .01 ** .05 *** .10**	**Expected results (more positive for IGP members than SHG only members)**	**IGP Member versus SHG Only Member:(More positive for SHG only members**
Shelter	• more number of rooms **	
Food Security	• more had positive food situation ***	
Assets	• more own cycle rickshaw *** • more own other productive asset + Rs. 500 **	• fewer have kerosene stove **
Livestock Assets	• more own poultry ***	
Crop Patterns	• total land plots * • total rain fed plots ** • total irrigated plots ** • more grow oilseeds ** • more used hybrid seeds **	
Forests Utilization	• more collect wild cocoons .01 (tautological--IGP in tasar silk)	• more collect seeds ***
Migration		• more respondents migrate **
Overall Livelihood Strategy	• more with primary livelihood as landed farmer and non-farm enterprise; fewer as laborer ** • more with secondary non-farm	

	enterprise and labor *	
Savings	• more save cash at home ** • larger savings in SHG *	• Fewer save in bank ***
Debt	• fewer using money lenders ** • fewer using merchant credit ** • fewer indebted to patron/employer ** • fewer indebted to family and friends * • lower interest on family / friend credit *** • more take largest loan from SHG, SHG-Bank and less from money-lender *	
Public participation, knowledge and awareness	**IGP Members—** • more approach government officials * • more attend community meetings * • more are committee member ** • more aware of SGYS ***	• fewer aware of FP methods ** • fewer know child immunization **
Decision-making	• more making sole decisions on child education * • more respondents make sole livelihood decisions * • more respondents make sole asset sale or purchase decisions * • more respondents tale sole loan decisions * • more respondents take sole visits decisions ***	
Gender Relations		
Children Education		

IGP members had better household savings and credit positions. They had higher levels of savings in the SHG and more IGP households saved in cash at home, but fewer saved in a bank. Compared with SHG only members, the IGP participant households were less indebted to high interest credit sources such as moneylenders, merchants, patrons or employers. They were also less likely to be indebted to friends and family and when they were they paid lower levels of interest compared to SHG only members. The source of the largest loan taken for IGP participants was more likely to be SHG fund and SHG-bank linkage compared with SHG only members.

IGP members, although the overall numbers are quite low, also participated more actively in the public domain: they were more likely to have approached a government official, attended a community meeting or participated as a member of a village committee. The most striking result was the fact that IGP participants were more likely to make sole decisions in five of the six decision areas probed than SHG only members — children's education, livelihood choices, asset sale or purchase, loan use, visits to natal place.

10. Conclusions

This paper reports on two kinds of comparisons in order to assess the impact of PRADAN's activities on the lives and livelihoods of its members. The main comparison has been between women who have been members of PRADAN for at least three years and those women who were eligible to become PRADAN members but had not yet joined. The second comparison was between PRADAN members whose involvement was confined to SHG activities and those who were also involved in livelihood promotion program.

First of all, the findings help to put into perspective the overall poverty of the context in which the study was carried out. We pointed to the very poor levels of infrastructure and services that prevailed in the villages included in the survey. Moreover, regardless of whether they belonged to PRADAN or not, the outcomes reported by the respondents testified to the very low levels of basic needs satisfaction, household income and assets and access to institutions that characterized them. There was virtually no electricity in any of the villages included in the sample, there was little use of technology and the most commonly owned consumer asset was bronze or copper utensils. Nevertheless, within this overall context of poverty, our findings suggest that PRADAN membership did make a significant difference to many of these outcomes.

As far as basic needs were concerned, PRADAN households were less likely to experience food shortage, and those that did, experienced it for a shorter period of time than non-PRADAN households. They consumed more nutritious food items per week and reported a more favorable overall food situation in terms of adequacy and diversity of diet. They had better access to clean drinking water, more of them using hand pumps rather than surface water and open wells. They had improved housing with more rooms and doors. There were also striking differences in the level of children's education in the two groups, with greater numbers of children attending school and greater gender equity in school attendance for PRADAN members.

Some of these findings can be explained by differences in the economic situation of PRADAN and non-PRADAN households. PRADAN households were more likely to engage in own cultivation and livestock rearing than non-PRADAN households and less likely to rely on unskilled wage labour activities. They had more land and livestock assets, more diversified cropping patterns, higher value crops, more harvests, and better agriculture practices. Many of these differences can be directly related to PRADAN interventions. They also had higher savings levels and lower incidence of indebtedness to high interest sources of moneylenders, merchants and employers. They more often borrowed for reasons of investment versus illness or basic consumption in contrast to non-members with much higher rates of exorbitant interest debt related to crisis of illness or consumption smoothing.

Impact in relation to women's skills, knowledge and agency was more mixed. PRADAN members had generally acquired a range of practical skills and demonstrated greater awareness of government interventions for the poor as well as various health-related matters. However, while more PRADAN members participated in the public life of the community than non-members, the percentages were very small. There were also few differences in the extent of female participation in household decision-making between the groups for a number of different decisions. For most decisions, both PRADAN members and non-members took sole decisions in a fifth of the households and a joint decision was made in about half of the households. The exceptions were non-members

who showed greater female decision-making regarding visits to family place and family size.

However, one point is worth highlighting. Although we found no difference between PRADAN members and non-members in percentages participating in decisions about children's education – about 20 per cent took the decision on their own and 56 per cent jointly with their husbands – it is worth noting that the results of decision-making varied significantly between the two groups, both in terms of overall school attendance as well as gender disparities in school attendance. To that extent, membership of PRADAN may be contributing to reduction in intra-household gender inequality. It also appeared to contribute in other ways. PRADAN women experienced less pressure to have sons and were more likely to keep a portion of earnings for their own use. Domestic violence levels were about the same for both groups at 9 per cent.

The comparison between SHG-only membership and SHG+IGP membership suggests that the additional level of participation resulted in stronger impacts, particularly with regard to improvements in livelihoods and financial position. This stronger livelihood base was not reflected in many significant differences, however, in material welfare in terms of improved housing, food shortage or nutrition (although overall food situation was rated more highly) household assets and children's education.

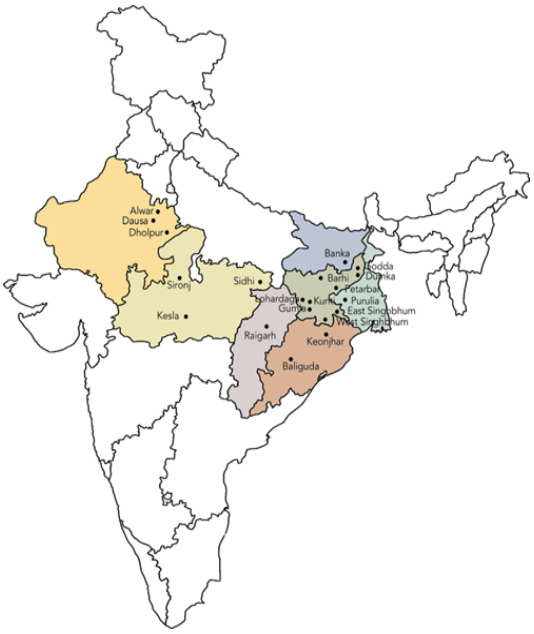
However, the most interesting results related to women's agency. SHG members who also participated in an IGP had higher levels of participation in public life and greater likelihood of sole decision-making role in the household. However, it is not clear whether participation in higher value IGP activities involving contact with new technologies, skill training, markets and service providers, has an empowering effect on women or that already more empowered women opt to participate in the new ventures. A panel study of participants tracking initial positions and changes over time for women in SHG only, SHG-IGP and IGP would help to answer this question. A follow-up investigation, especially with more qualitative focus, will also shed some light on this question as well as the overall low level of public participation for women.

To sum up therefore, it appears that PRADAN's SHG-bank linkage model has had significant and positive impact in improving their livelihood base, savings and debt position and living and consumptions standards of participants. PRADAN participants have been able to secure their primary livelihood source through own agriculture supplemented by labor, livestock and non-farm enterprise activities in comparison to more marginally positioned non-members who must still rely on unskilled labor activities as their primary source of income to augment their secondary livelihood in own farm activities. This access to financial services and the strengthening of the own account agriculture activities of PRADAN members is associated with less vulnerability in terms of higher savings, less onerous debt and less crises-related borrowing and more investment in productive activities and fewer months of seasonal migration. It is also associated with significant household welfare gains especially shelter, food security and education. The few contrary exceptions in impact results in the sub-analysis can be explained on cultural differences in food practices (rearing of pigs) and living environments (forest collection) for scheduled caste or tribal groups.

However, the results also show that empowerment gains are not an automatic outcome of targeting women for financial services. While gains in terms of women's knowledge, awareness and skills were clearly discernible, impact in terms of participation in decision-making within the home and in the public domain were far more modest. Our findings demonstrate the need to go beyond

anecdotal evidence of women's empowerment gains to more systematic analyses before making claims about impact in this area. It also points toward the need for specific program intervention to enhance the expected outcomes for empowerment as women participate in savings, credit and livelihood programs.

Figure 1. Key Outreach Statistics of PRADAN's SHG Livelihood Program



India

- 7 states; Bihar, Chattisgarh, Jharkhand, Madhya Pradesh, Rajasthan, Orissa and West Bengal.
- 28 districts
- 65 blocks
- 1700+ villages
- 80,000+ households

References

Kabeer, N. (2000) 'Social exclusion, poverty and discrimination: towards an analytical framework' IDS Bulletin 31(4).

[1] By way of example, PRADAN staff point out that tribal populations have typically relied on the sale of timber collected from the forest, an activity which is available to all, but yields poor returns. Tasar silk, which yields an additional 10,000 rupees are year is a clearly preferable source of income but it is based on the acquisition of certain skills, timely credit and non-exploitative linkages to the market, conditions which would normally be beyond the average scheduled tribe member but which PRADAN can help to enable. On the other hand, it is difficult to determine which would rank higher, skills-based activity like tasar reeling or cultivation based on own land: clearly it would depend on the individual concerned and the local structure of risks an dopportuntiies.

[2] Thus it is possible to see 5 or 6 varieties of crops planted side by side in the homestead of a typical poor family in Godda, none doing very well. However, if the rains fail, those crops which are drought prone will survive while others die. As practices improve in these regions, as technologies are adopted and cropping becomes more certain, farmers move towards a more strategic approach to farming, starting with ensuring food security and moving to commercialization. In such circumstances, the number of crop varieties may decline. Personal communication, D. Narendranath.

[3] The findings here can be contrasted to those reported in relation to two of the three branches covered by the SHARE AIMs study in Andhra, overall a more prosperous state. Not only were the levels of savings reported much higher, but a higher percentage of members saved with formal institutions, including banking sector, the post office and DWCRA

[4] These are much lower levels for both PRADAN members and non-members compared to those reported for Andhra Pradesh for SHARE old and new members (93% and 90%) once again indicating the poorer and more isolated nature of the context in Jharkand.