

IMPACT ASSESSMENT OF LAND RECLAMATION PROGRAM ON POVERTY ALLEVIATION



NICHOLAS EVANS

**TCSR
AUGUST 2009**

Impact assessment of Land reclamation program on poverty alleviation

NB. All land measurements are given in bighas unless otherwise stated.

Preface: Difficulties in Assessing the Bhoomi Sudhar Project

The TCSR D Bhoomi Sudhar project is still relatively young, with no Bhoomi Sudhar Committee more than one year old (the oldest, in Guretha, formed on 10/08/08). As such, both land reclamation and micro-finance are in their early stages; no BSC has yet borrowed money from a bank, and the first reclaimed plots of user only underwent paddy transplantation in July 2009. Thus, there is very little tangible 'progress' that can be measured at this stage; such an analysis would have to be made on continuous basis over the next few years.

Faced with these difficulties, I have not tried to measure the progress of the project. Instead, I have concentrated on understanding its reach within the community, its implementation, and the understanding held by beneficiaries of the key concepts involved in the project.

Introduction: Bhoomi Sudhar

TCSRSD has gained substantial technical expertise in land reclamation since 1993. For more information on previous projects, and the need for land reclamation see PrimeNET (2008), and TCSRSD (2008).

Land reclamation involves the following processes;

- Selection of *usar* land
- Land preparation (shaping, levelling, and bunding)
- Soil testing
- Leaching
- Ploughing
- Application of gypsum
- Ponding of field with water
- Cultivation of green manure
- Transplanting of first paddy crop

Technical details can again be found in PrimeNET (2008), and TCSRSD (2008).

The basic aim of the procedure is to transform salt-affected (*usar*) land into fully productive land (referenced as *good land* for the remainder of this report). *Usar* land covers 11.86% of the total geographical area of Badaun district (TCSRSD, 2008), and due to the high population density in Uttar Pradesh, its reclamation is considered essential to poverty reduction.

The current project will run for five years, and is situated in the villages around Birwati town. The project is led by a Project Coordinator (Arun Kalindi), with a team of field coordinators. Currently there is only one field coordinator due to the resignation this month of the other two. The project requires up to four field coordinators at any given moment to organise contact programs, manage beneficiary contributions, and crucially, recruit potential beneficiaries to the project. The technical process for reclaiming land is built upon TCSRSD's past experience. A major new initiative for this project, however, is the introduction of Bhoomi Sudhar Committees (BSCs). These committees have a dual role; they will provide a collective platform for beneficiaries to be informed about land reclamation, whilst also doubling as SHGs. Thus, their long-term utility is intended to outlive the land reclamation project itself.

Since August 2008, 12 such committees have been established. As SHGs in all but name, they require members to make a monthly contribution to group savings; 6 groups pay Rs.50 a month; the other 6 pay Rs.100. Total savings across the 12 groups currently stand at Rs.71,770. Combined loans of Rs.25,000 have been made in 5 of the groups.

The land reclamation itself is heavily subsidised by TCSRSD, but still requires a beneficiary contribution of Rs.400 per bigha. Farmers must also bund and level their land, and ensure proper drainage if they are to receive help from TCSRSD. Without the completion of such processes, the land reclamation could fail, or even cause degradation to neighbouring plots.

Lessons from Bengali Colony

A previous TCSRSD land reclamation project was organised in Bengali Colonies I and II, settlements created by the government for the laid-off workers of a mill. Houses were constructed by the government, and each farmer was allotted 1.2 hectares of land. The major problem was that all this land was *usar*, making reclamation an absolute priority. It was here that TCSRSD stepped in. Before reclamation, the farmers told me that each hectare was capable of producing only 5-10Kg of paddy, whilst by the time it was complete, yields of 40-45 quintals were possible. TCSRSD did not create BSCs for this project. Due to the necessity for reclamation, all residents signed up, and the uniform nature of their problems made scheduling and organising the reclamation relatively straightforward. A major problem for the current land reclamation project is persuading farmers to

make their beneficiary contributions on time, and to do essential work, such as bunding and levelling, in time for the delivery of Gypsum. This problem is made worse by the fact that many of the current beneficiaries are actually, by local standards, comparatively wealthy in land (see table 4), and are therefore not dependent upon the reclamation of land in the way that beneficiaries in Bengali Colony were.

The challenges faced by TCSRDR in Bengali Colony were therefore quite different from those of the present project, in which motivation and the cohesion of BSCs constitute a difficult problems. Bengali Colony proves that it is possible to run a technically efficient land reclamation program using TCSRDR's model. It does not, however, solve the twin problems of how to motivate individuals to have their land reclaimed, and how to ensure the smooth and effective running of committees which are SHGs in all but name.

This Study

TCSRDR has evidently proved that its technical process is effective, with almost 900 acres of Usar land reclaimed in previous projects. What has not yet been proved is the effectiveness of creating BSCs, and turning these into SHGs. The idea behind establishing dual BSCs/SHGs is that it cuts out an obvious doubling-up of purpose; TCSRDR wants to establish SHGs in the area, so why have two separate committees when 1 can perform both functions? By doubling as an SHG, the BSC becomes capable of driving forward sustainable, demand-driven development, that crucially continues after TCSRDR pulls out of the area after 5 years. Currently, the Bhoomi Sudhar project is TCSRDR's only major work in the Birawati area; thus, it is essential for the development of the area that the SHGs become effective organs of change.

This study takes the linkage between BSC and SHG, and asks two major questions;

1. Does the fact that SHGs are being established on the basis of land reclamation mean that entry into TCSRDR's development program in Birawati is effectively restricted to a small group of farmers?
2. Are farmers who joined the program to have their land reclaimed interested in and/or aware of the purpose of micro-finance through self help groups? It is essential that all members of the committees show both interest and awareness if this project is to lead to sustainable development after TCSRDR's withdrawal.

In order to investigate these questions, a number of research methods were used. A survey provided basic data with which I could compare BSCs to the wider population. For more in-depth analysis of BSCs, I used a number of PRA (participatory rural appraisal) exercises. Chambers (1994a, 1994b) defines PRA as a set of practices designed to utilise the analytical capabilities of local people, such that they produce and own the information used by the researcher. Such analysis implies less domination by an outside researcher, and hence a corresponding empowerment of the local community as they come to have a greater stake in the knowledge being produced. It should ideally be characterised by a relaxed rapport between analyst and local community. In this study, 5 different PRA exercises are referenced, most of which involve some kind of graphical analysis of local conditions and society. In each case, I have turned to PRA in places where conventional interview questions have proved unsuccessful. I found that PRA offered two major advantages in such situations. Firstly, in exercises such as social mapping (where the participants draw a social map of their village), it prevents research being characterised by the priorities of the researcher. As such, data is not distorted by leading questions, and local priorities become apparent. Secondly, PRA exercises such as matrix scoring can prevent problems arising from locals answering questions with what they believe the interviewer 'wants' to hear. This is discussed in greater length in the section "*Mico-finance and the BSCs's role as SHGs*".

Survey

The primary data for this project comes from a survey carried out among both BSC members and non-BSC members. 3 villages were chosen where there are a large number of active BSC members; Hironi, Guretha, and Setua. The field coordinators were then asked to survey a random sample of 50 villagers from each of these villages as a control group. Meanwhile, I asked similar questions to the BSC members from these 3 villages. Interviews were also taken with BSC members from a further 2 place; Nyora, and Birawati. In total, 51 BSC members, and 151 non-members were surveyed. I chose to concentrate the majority of my analysis upon just three villages so as to get really detailed and in-depth comparative data. There are large differences in income and social organisation between the various villages in this project, and therefore to successfully compare the survey data of BSC members to non-BSC members requires that they are drawn from the same villages. This cuts down on the risk that differences in the survey data are just the result of local variation.

The questions asked to non-BSC members were;

1. Name
2. Age
3. Married?
4. Do you support the present pradhan of your village?
5. Which political party do you support?
6. Have you ever heard of TCSRDR?
 1. If yes, can you name 2 of its activities?
7. What should TCSRDR do?
8. Have you heard of an SHG?
 1. If yes, have you ever been a member of one?
9. How much land do you have:
 1. Total Individual land:
 1. Of which usar:
 2. Total family land:
 1. Of which usar:
10. Have you ever tried reclaiming your usar land?
11. Do you have a BPL card?
12. Is it important for a village committee to be led by the pradhan?

BSC members were asked the following questions:

1. Name
2. Age
3. Married?
4. Do you support the present pradhan of your village?
5. Which political party do you support?
6. Before being a member of this BSC, had you heard of SHGs?
 1. If yes, were you ever a member of an SHG?
7. Are you aware of the long term plans (e.g. micro-finance, inter-loaning, micro-enterprise) for the BSC?
8. How much land do you have:
 1. Total Individual land:
 1. Of which usar:
 2. Total family land:
 1. Of which usar:
9. Did you ever try to reclaim you land using a traditional method?

10. Do you have a BPL card?
11. Is it important for a village committee to be led by the pradhan?
12. How did you hear about the BSC?
13. Do you have any relations in the BSC?

During analysis, I have split up the village survey into various groups;

Potential beneficiaries – refers only to those villagers in the survey who own usar family land, and could therefore potentially benefit from the TCSRSD program.

All landed villagers – includes any villager with family land, be it good land or usar.

All villagers – the entire sample.

The *total land* refers to good land and usar land. Unless otherwise stated, it is a farmer's family land rather than individual land which is being referenced.

The following presentation of the survey data begins with an analysis of the individual villages, before moving on to the combined statistics. The aim to provide some specific, village level recommendations for TCSRSD's Bhoomi Sudhar project.

Guretha Survey

On average, BSC members in Guretha own more total land, more usar land, and more good land than either potential beneficiaries or other landed villagers (see *Table 1*). In fact, the data indicates that there is a real need to extend the land reclamation to other potential beneficiaries, who on average own less good land than farmers without any usar. It is the average amount of good land which holds the key to identifying the relative wealth of farmers, as it is this figure which indicates their productive capacity at present.

Group	Size of sample	Av. total family land	Av. usar family land	Av. of good land
BSC members	17	34.00	15.68	18.32
Potential beneficiaries	20	18.45	06.55	11.90
All landed villagers	41	15.95	03.20	12.75
All villagers	50	13.08	02.62	10.46

Table 1

Interestingly, non-BSC members are far more likely to have heard of the concept of an SHG than BSC members (42% compared to 24%), although they are less likely to have been a member (4% compared to 12%). The implication of this data is that whilst potential beneficiaries might understand the need for an SHG, their willingness to participate in one is hampered by a lack of direct personal experience.

All the above data is indicative of what I see as the most pressing problem within Guretha; that the project has, despite its evident successes, failed to reach out to the whole village. *Figure 1* goes some way toward illustrating this point. It was constructed from information gathered from two separate PRA exercises. In the first exercise, BSC members were asked to draw their names on a piece of paper, and then connect the names with lines to indicate blood relationships between people. Thus the lines on the diagram showed the links between cousins, fathers and sons, uncles and nephews, grandfathers and grandsons. The second PRA exercise involved matrix scoring. The names of the BSC members were placed on a matrix, and then the BSC members were asked to rank the names against one another in terms of influence within the village (measured by land, wealth, education, family connections, and social persuasiveness). From this exercise, I was able to come up with a score for each BSC member, which indicated how influential he was within the

village.

These two PRA exercises were conducted with two BSCs from Guretha, and then the BSC members were asked to identify blood relations between the BSC members of the separate BSCs. I then asked the BSC members to identify blood relations between the BSC members and the field coordinator.

From these two sources, I was able to construct *Figure 1*. The field coordinator is placed centrally. Each BSC member is represented as a circle with a number inside. The number represents their score in the matrix ranking, 1 being the most influential member of the group, and 11/12 being the least. If two people scored the same in the matrix ranking, then they have been given an identical number in this diagram. The more influential a person is, the more centrally they have been positioned, and thus the closer they are to the field coordinator. Those at the edges of the diagram are therefore the least influential.

On the left is one BSC, on the right is the second BSC. Red lines indicate a close blood relationship between two members of a BSC. Green represents a similar relationship between individuals of different BSCs, or between BSC members and the field coordinator.

The diagram demonstrates that the most influential member of each BSC belongs to the same family. This family is in turn related to the field coordinator. Extensive family relations do not automatically make a person strong within the group. It is, however, telling that in the BSC on the left, the top 9 most influential people all have relatives, whilst in the BSC on the right, the top 6 have relatives.

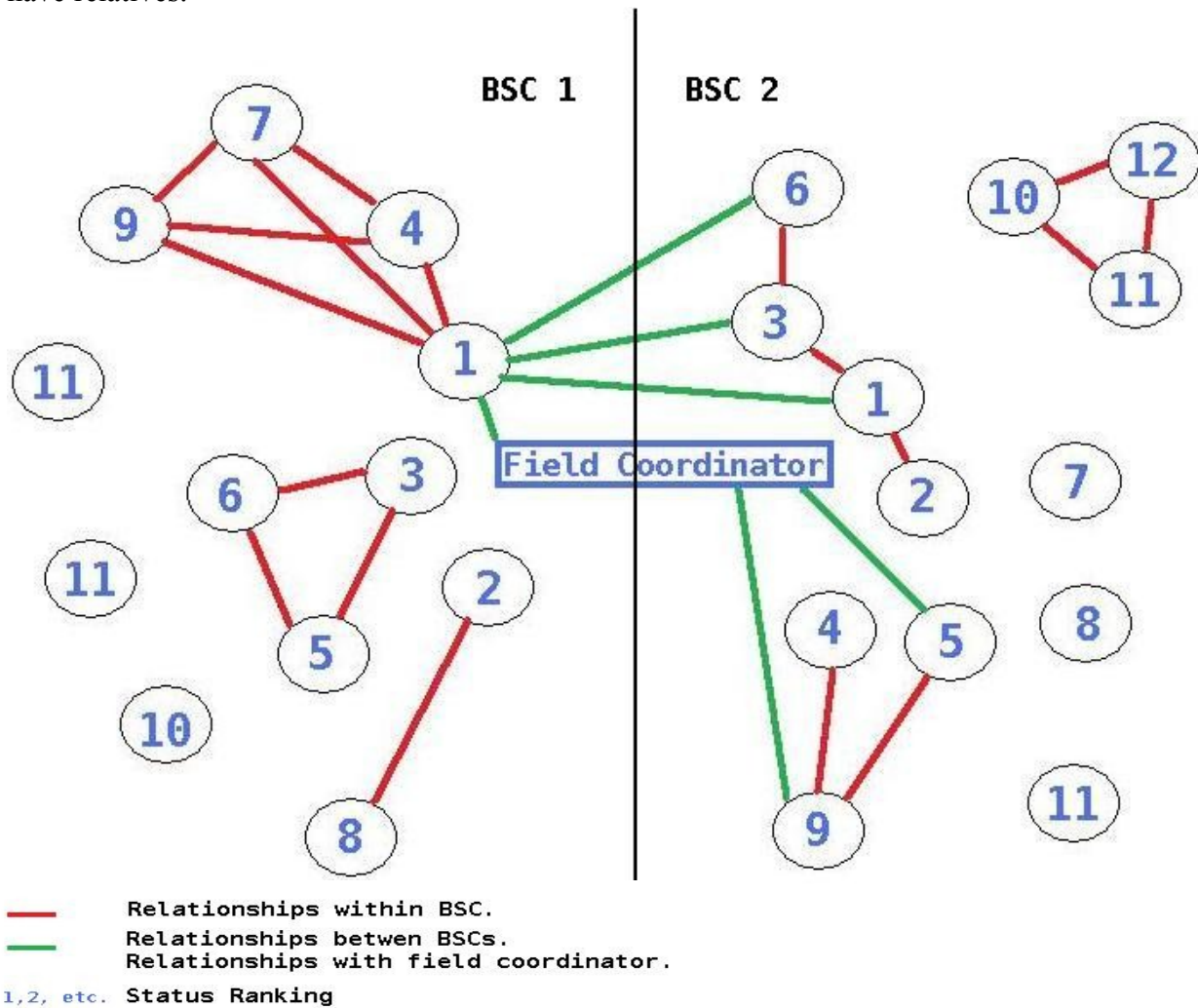


Figure 1

These are, by all accounts, successful BSCs. The relationship diagram does, however, demonstrate that the beneficiaries of this project tend to belong to a small, highly interconnected

social network, who, moreover, are linked to the field coordinator. Viewed in conjunction with the survey data, this diagram indicates that the TCSR land reclamation program must begin to expand its reach. The current BSCs in Guretha are held together by a tightly related network of influential individuals, who are in turn connected to the field coordinator. This may well make such BSCs effective, yet the fact remains that there are a large number of more marginal, potential beneficiaries within Guretha, who on average own 35% less land than current BSC members. Faced with this information, we can only conclude that in order to become truly effective as a poverty alleviation program, the Bhoomi Sudhar project in Guretha must be expanded further within the community. Currently, it would appear that the most marginal groups within the village are benefiting from neither land reclamation nor micro-finance.

Hironi Survey

As with Guretha, BSC members in Hironi hold, on average, more land than any other group, whilst potential beneficiaries are on average poorer than other landed villagers (*Table 2*). Once again, it would therefore appear that those who are gaining the most benefit from the Bhoomi Sudhar project are the wealthier farmers within the village. The most marginal land holders are far less likely to be benefiting from the scheme, despite being in more need of having their land reclaimed.

Group	Size of sample	Av. total family land	Av. user family land	Av. of good land
BSC members	14	25.36	11.29	14.07
Potential beneficiaries	9	11.22	03.78	07.44
All landed villagers	38	09.84	00.89	08.95
All villagers	51	07.33	00.67	06.66

Table 2

As with Guretha, BSC members in Hironi hold, on average, more land than any other group, whilst potential beneficiaries are on average poorer than other landed villagers (*Table 2*). Once again, it would therefore appear that those who are gaining the most benefit from the Bhoomi Sudhar project are the wealthier farmers within the village. The most marginal land holders are far less likely to be benefiting from the scheme, despite being in more need of having their land reclaimed.

In order to investigate why the beneficiaries are more wealthy than potential beneficiaries, I again constructed a relationship diagram linked to status ranking (*Figure 2*). This diagram was constructed in exactly the same way as *Figure 1*, but this time there were three BSCs (all from Hironi) involved. The three BSCs are colour coded in *Figure 2*. Interestingly, there are far more powerful individuals in Hironi than in Guretha with no family connections in the BSCs. Two families do, however, dominate the BSCs. For clarity, these two family groups are highlighted in purple in *Figure 2.1*, which is a simplified version of *Figure 2*.

It is also worth noting that of the 36 BSC members, only 8 had no family connections.

The implication of this data is that the BSC project is primarily benefiting a relatively small social group who are highly interconnected. Of the two most influential family groupings, one is directly connected to the field coordinator. Among this group are the field coordinator's father (who is the most influential member of the BSC, and three of his uncles.

As with Guretha, non-BSC members are far less likely (4%) to have been previously been a member of an SHG than BSC members (14%). However, the number in each group who have heard of the SHG concept stands the same at 43%. This suggests that more effort needs to be made to encourage those with no personal experience of SHGs to become members of the BSCs.

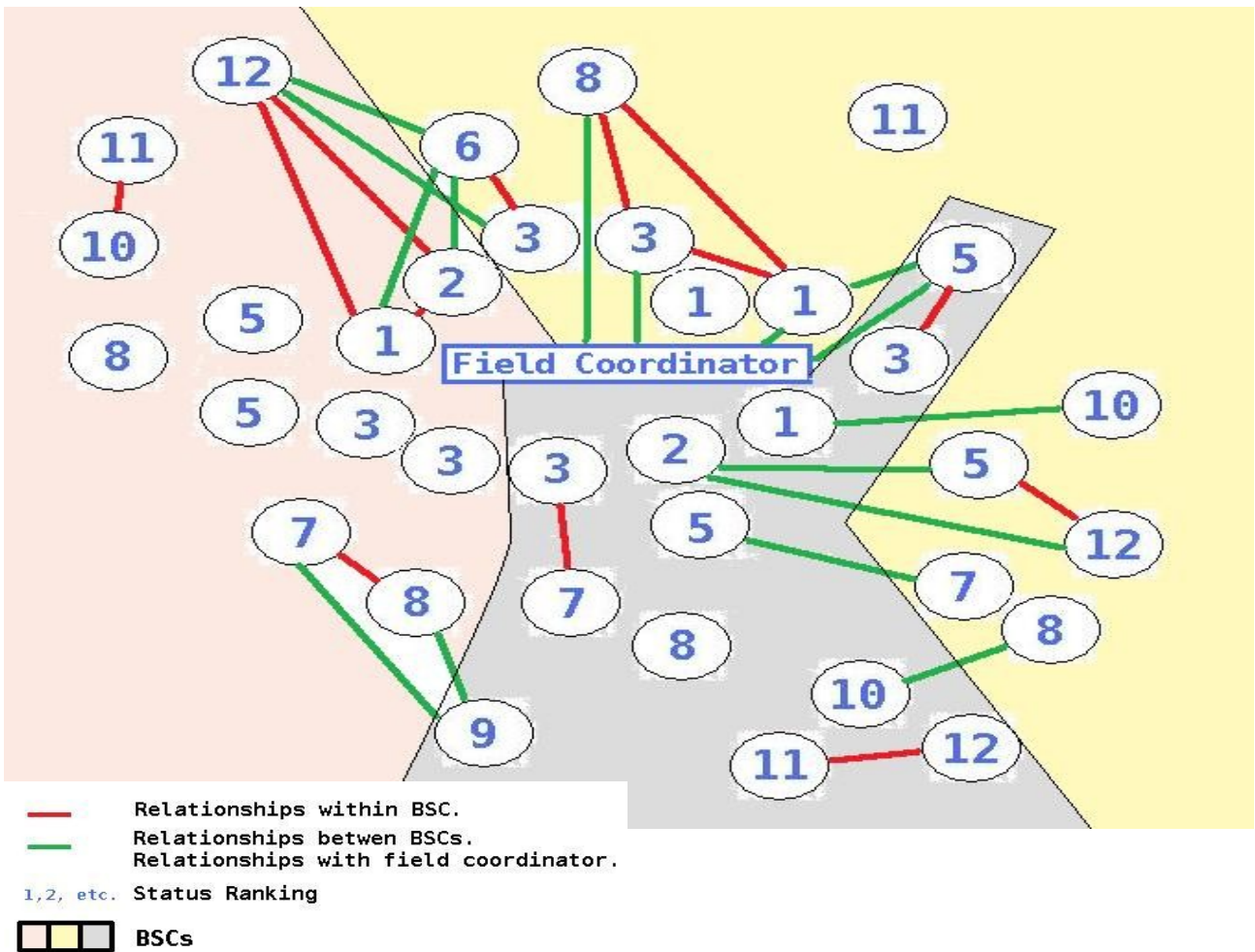


Figure 2

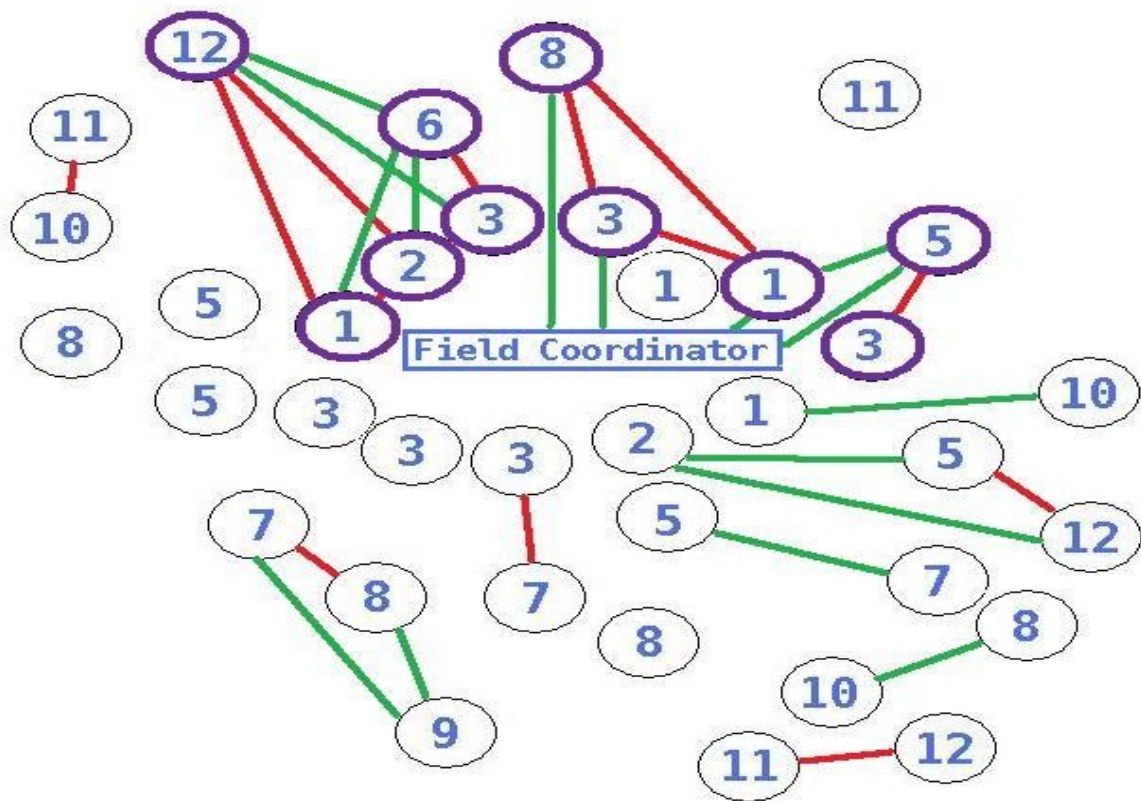


Figure 2.1

Setua Survey

Group	Size of sample	Av. total family land	Av. usar family land	Av. of good land
BSC members	5	26.6	13.4	13.2
Potential beneficiaries	26	19.85	07.46	12.39
All landed villagers	45	16.29	04.31	11.98
All villagers	50	14.66	03.88	10.78

Table 3

The data from Setua follows a similar pattern to Hironi and Guretha, with BSC members owning more good land than non-BSC members (*Table 3*). Unfortunately, however, it is not as robust as the data from the other villages. This is because I was able to gather data from only 5 BSC members. Of these 5, 2 had no usar land, and of the remaining 3, 1 had 50B total family land, all of which was usar. This was a large and unusual result, which in such a small sample distorted the average.

Social Mapping

Social mapping was carried out for the villages of Hironi and Guretha (see appendix for originals). This is a PRA exercise which involves members of the BSCs sketching out a map of their community. Key features identified include meeting places, temples and mosques, bore wells, and the distribution of social groups. This district is dominated by the Yadav caste, who make up >80% of the population. Other significant groups are Jatavs, Muslims, and Dalits.

Guretha

The village of Guretha is primarily arranged along a single road running North to South. To the north are Dalit and Jatav muhallahs. Yadavs are spread out across the northern part of the village, but are mainly concentrated in a southern enclave. It is in this southern part of the village that all the BSC members reside. The 5 points at which their monthly meetings are carried out are also in this area, mostly at the houses of the richest and most influential beneficiaries. Whilst there are patches of usar around the village, all but 1 beneficiary has usar at a single site, to the east of the village.

The social map reveals a number of things when placed alongside the survey, relationship diagrams, and social mapping. Firstly, the high concentration of all the BSC members within the Yadav dominated southern part of the village helps cement the theory that TCSR's Bhoomi Sudhar project is mostly benefiting people who are highly connected to each other. The fact that the BSCs are dominated by well connected, influential family groupings is not in itself a problem; indeed, it no doubts helps to provide solidarity and clear leadership. It does, however, mean that a substantial number of potential beneficiaries, who have on average less land than the actual beneficiaries, are currently not benefiting from the project.

Hironi

The Hironi relationship diagram demonstrated that whilst two influential family groupings dominate the area's BSCs, there is still significant room for unconnected individuals to become influential within a BSC. This is quite different from Guretha, where influence really is concentrated in the hands of one strong family group.

As expected, the Hironi social map shows the BSC members to be far more dispersed across the village than in Guretha. The majority of BSC members in Hironi are Yadavs, although there are a pair of Muslim brothers, living in a northern enclave of the village, and at least one Jatav. On this point, the data conflicts, and more information is needed; whilst the social map indicates that there are 6 BSC members living in the Jatav muhallah, a separate survey showed that only a single Jatav was involved, and interestingly, he scored very highly (3) on the status ranking.

The social map reveals that the presence of other castes in the BSCs is not to be unexpected. Hironi is a far more heterogeneous village than Guretha; it would appear to have a significant Muslim population, as well as Kashap, Jatav, and Dalit enclaves.

That said, Yadavs continue to make up the most influential majority. They have large family groupings, 2 of which predominate, and 1 of which is tightly knit to the field coordinator. Whilst the single Jatav on whom I have data is influential, the Muslim brothers are the most marginal members of their committee.

In *Figure 3*, the BSC member who I am sure is a Jatav is labelled in brown. The Muslim brothers are circled in purple.

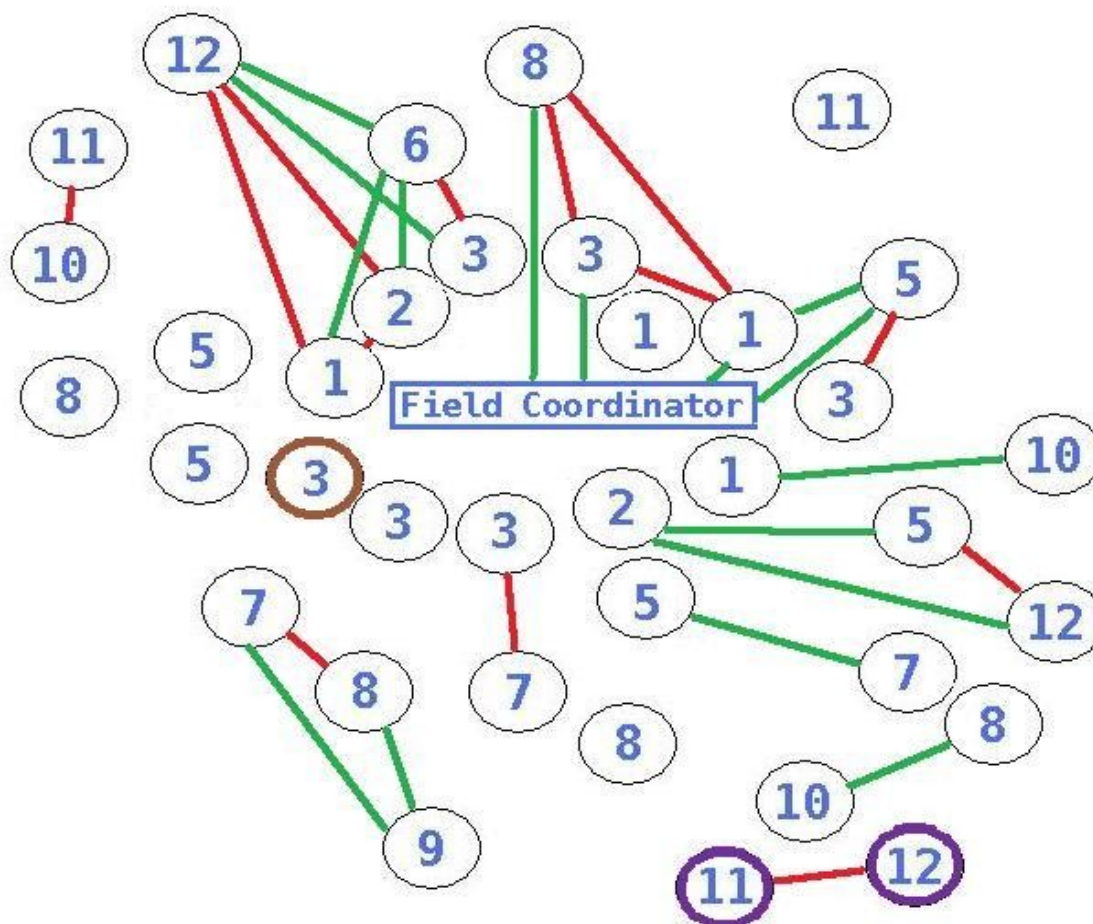


Figure 3

Combined statistics for Guretha, Setua, Hironi

On average, beneficiaries from these three villages own 65% more family land than do potential beneficiaries (see *Table 4*). However, the percentage of this land which is usable is higher for beneficiaries (46%) than it is for potential beneficiaries (36%).

Group	Size of sample	Av. total family land	Av. usar family land	Av. of good land
All BSC members	36	29.61	13.65	15.96
BSC members with usar	32	31.09	15.56	15.53
Potential beneficiaries	55	17.93	06.53	11.40
Landed villagers without usar	96	08.07	00.00	08.07
All landed villagers	124	14.20	02.90	11.30
All villagers	151	11.66	02.38	09.28

Table 4

Following the general trend established in each village, the BSC members possess, on average, the most good land. Going against the trend established in both Guretha and Hironi, potential beneficiaries have, on average, the second largest amount of good land. The difference between them and all landed villages is, however, so small as to be insignificant. The group holding the lowest average for good land is all villagers, most likely due to the presence of 27 individuals from landless families among the sample of 151 villagers.

In this sample of 36 BSC members, 4 owned no usar land, and had joined the BSCs for the sole purpose of accessing micro-finance. I have thus distinguished between All BSC members, and BSC members with usar, as it is to the latter group that potential beneficiaries should be compared.

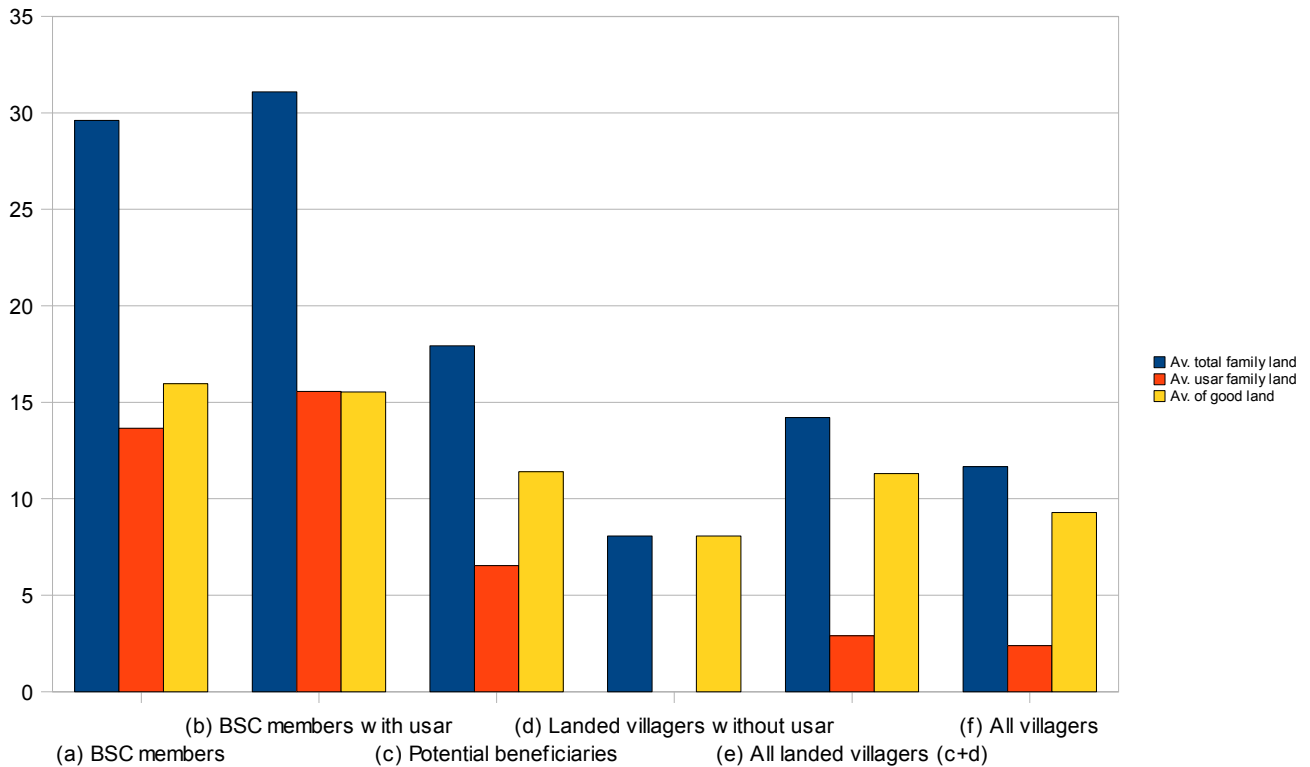
Interestingly, landed villagers without usar have on average less land than potential beneficiaries. The implication of this is that those who possess usar land tend to be the wealthier farmers in the village. This confirms a comment made by a field coordinator during the drawing of the Guretha social map that the BSC members tend to live in a single place because that is where the wealthy live, and consequently, that is where there are owners of usar land.

As with the individual data from Setua, Hironi, and Guretha, this combined data suggests that those currently benefiting from the Bhoomi Sudhar project hold, on average, much more good land than potential beneficiaries. Indeed, the average beneficiary has 40% more good land than the average potential beneficiary. *Figure 4* provides a clear visual representation of this – the most important part of this graph are the yellow columns showing each group's average possession of good land. As previously mentioned, good and is the most reliable indicator of wealth, because it represents the present productive capacities of the farmer. Total land can only ever be a measure of potential productive capacity – a potential capacity which is dependent upon reclamation taking place.

When combined with the individual village studies (social mapping, relationship diagrams, status ranking), this data points to the fact that the current BSCs are dominated by a single caste, that they are attracting well connected and influential family groupings, and that the social distance of these groupings from the field coordinator is often marked by proximity.

Such trends are exemplified by Guretha, although they are also, to a lesser extent, discernible in Hironi.

Interestingly, a higher percentage of potential beneficiaries than BSC members who possess usar (60% compared to 53%) have previously tried traditional reclamation techniques, indicating that there is a substantial demand for this kind of project among the comparatively less wealthy group of potential beneficiaries. Such data indicates that the project would have a high chance of success if expanded across the communities. As discussed earlier in the section on Bengali Colony, the motivation of beneficiaries is a major problem for this project. TCSR must ensure that beneficiaries completed the bunding and levelling of fields in order that the gypsum application is effective. I suggested earlier that the relative wealth of BSC members might be a factor in their occasional negligence of such duties; having enough land to provide themselves with a good income, they see usar land reclamation as a luxury rather than a necessity. The fact that potential



beneficiaries are more likely to have tried traditional reclamation indicates that these kinds of motivational issues would perhaps be less of an issue, possibly owing to their smaller average holdings of land.

There is a substantial level of awareness of the Bhoomi Sudhar project among potential beneficiaries. Of those who have tried to reclaim land using traditional methods, 48% have heard of TCSR, whilst 39% have heard of TCSR's land reclamation project. A challenge for the future is therefore to encourage these people to become beneficiaries of the scheme. It would perhaps be worth investigating why those who have tried traditional reclamation and also heard of TCSR's Bhoomi Sudhar have not put themselves forward as beneficiaries of the scheme.

There were some interesting political differences between BSC members and non-BSC members. Among BSC members, 41% supported SP, and 41% supported BSP. Among potential beneficiaries, BSP gained more support, at 47%, whilst SP was less popular at 36%. In the survey of all villagers, SP came top with 49%, and BSP lagged significantly behind at 31%. In each case, Congress supporters numbered no more than 15%.

Support for the local Pradhans also varied between groups. 78% of BSC members from Guretha, Hironi and Setua support their Pradhans, compared to 58% of potential beneficiaries, and 65% of all villagers. The 20% difference between BSC members and potential beneficiaries is perhaps once more indicative of the fact that BSC members appear to constitute a wealthy, well-connected section of the village, who are consequentially more likely to be linked to those in power. In connection with this, it is worth noting that in almost all the villages I visited, the Pradhan was a member of a local BSC.

On average, 31% of all villagers carried BPL cards, compared to 20% and 19% for BSC members and potential beneficiaries.

All BSC data

The above tables did not contain data from the remaining two villages, Nyora and Birawati, in which surveys were carried out on BSC members.

The figures for these, compared to the village survey data are shown in *Table 5*:

Group	Size of sample	Average total family land	Average usar family land	Average of good land
All BSC members	51	33.25	12.66	20.59
BSC members with usar land	40	35.30	16.14	19.16
Village Survey (Guretha, Hironi, Setua)	151	11.66	02.38	09.28

Table 5

Table 5 once again clearly demonstrates the relative wealth of BSC members compared to other villagers.

In a repeat of the pattern found in individual villages, BSC members are far more likely to have previously been members of an SHG, with 12% of BSC members having previously been in an SHG, compared to only 3% of all villagers. For both BSC members and non-BSC members, the proportion who had previously heard of an SHG stood at 37%. This indicates that personal experience of an SHG is likely to encourage an individual to consider membership in the future. For the Bhoomi Sudhar project to really benefit the most marginal villagers, greater efforts must be made to include those who have no direct experience of an SHG.

Among all BSC members, SP was the most dominant political party (59%), with BSP in second place (33%). Congress again hovered below the 15% mark.

Mico-finance and the BSCs's role as SHGs

Given the relative youth of all the BSCs, it is hard to assess how effective the micro-finance initiatives have been. I have therefore chosen to focus my investigation on the attitudes and understandings of BSC members. The link between land reclamation and micro-finance is a new invention of TCSR, designed to overcome the need for having two different committees working side by side. The danger of such an approach is twofold. Firstly, individuals might enter the project having an interest only in land reclamation, and no interest in micro-finance. This would inevitably lead to problems in the long term future of the BSC as a functioning SHG. Secondly, individuals who are primarily concerned with land reclamation may be open to the possibility of micro-finance, but not understand why it is important, and what its major concepts are.

As part of my research, 4 “H-diagram” PRA exercises were constructed; 2 with the Birawati BSC, 1 in Hironi, and the last in Nyora. For this exercise, a scale from 1 to 10 is drawn on a piece of paper. BSC members were then asked to rate the importance of statements or concepts. In this case, they were asked to consider how important they believe micro-finance in a BSC to be. They were then asked to list the advantages and disadvantages of micro-finance, before finally being asked to re-evaluate their original rating.

The object behind this exercise was to discover how much BSC members value micro-finance and micro-entrepreneurship as a long-term goal of the BSCs. It is obvious that all the members of the BSCs value and understand the importance of land reclamation, yet the same cannot be said for the BSCs' dual function as SHGs. 11 of the 51 BSC members joined explicitly for the purpose of having access to savings and loaning opportunities. However, when asked the question “are you aware of the long term goals of the BSC?”, only 45% answered in the positive. This question is admittedly, ambiguous, and may elicit a negative answer from somebody who is, indeed, aware of the micro-finance opportunities offered by an SHG.

When completing the H-diagrams, BSCs did show a high degree of awareness of the benefits that can be incurred from saving and inter-loaning. The difference between this and the survey data can probably be explained by the presence of highly vocal individuals taking part in the exercises who were able to share information with their fellow beneficiaries as they completed the exercises. In Nyora and Hironi, the H-diagrams showed that BSC members understood the benefits of micro-finance to lie with the potential for future investments in agriculture, business, and at times

of emergency. Hironi BSC members also mentioned the lower cost of interest vis-a-vis the banks, which is similar to the comments made by Birawati beneficiaries. In their two H-diagrams, the Birawati BSC members mainly compared BSCs to other methods of saving and borrowing money, and pointed toward the potential for them to earn money through interest, and the relative safety and ease that inter-lending offers when compared to a moneylender or bank.

The ratings given by BSC members to the importance of micro-finance were also very high. In all but one cases, it scored above 7, with 5 (in Hironi) being the lowest, and 10, in Birawati, being the highest. The BSC members were also able to give a disproportionately high number of advantages compared to disadvantages for micro-finance, with most disadvantages being restricted to variations upon the theme of “problems with repayment”.

What all of the above would appear to demonstrate is that BSCs are well aware of the importance of micro-finance, that they value it, and that the double role of the BSC as an SHG should be relatively unproblematic. Unfortunately, another set of data appears to contradict this.

In Birawati, Hironi, and Setua, farmers were asked to list up to ten sources of significant expenditure. They were completely free to choose what to include in this list. Common to all three lists were health and education, with agriculture, emergency, and marriage all making two entries. The BSC members' suggestions were then placed on a matrix, along with 'land reclamation' and 'savings' – the two forms of expenditure incurred specifically by BSC members. We then asked BSC members to rank the necessity and importance of the different forms of expenditure against one another. The advantage of using this matrix scoring system is that by getting BSC members to focus upon single oppositional pairs, they cease trying to tell the researcher what they believe he/she wishes to hear.

The categories chosen by the farmers, along with the rank allotted to each are shown in *Table 6*. In each case, 1 is the highest score.

Birawati		Setua		Hironi	
Health	1	Emergency	1	Health	1
Emergency	2	Education	1	Agriculture	2
Education	3	Animal husbandry	1	Marriage	2
Clothes	4	Health	4	Education	4
Marriage	5	Agriculture	5	Land reclamation	4
Land reclamation	6	Business	6	Food	6
Pilgrimage	7	Land reclamation	7	Home-making	7
Savings	8	Savings	8	Motorcycle	7
Development of village	9	Household	9	Savings	9

Table 6

These tables clearly demonstrate that saving money in a BSC is not a high priority for farmers compared to other forms of expenditure such as health, education, emergencies, agriculture, and marriage. Interestingly, this matrix ranking was conducted immediately after the H-diagrams in Birawati and Hironi, when micro-finance was ranked at 8.5 and 5 out of 10 respectively. The extremely low score which savings received in the matrix ranking suggests that the relative enthusiasm shown for it during the H-diagrams had more to do with how the BSC members wished to present themselves to TCSRSD than their actual priorities.

One question does, however, remain; given that the BSC members are so clearly able to list the many benefits of saving during an H-diagram, why did it score so low here? The answer, I believe, lies in a lack of connection being made between saving in the BSC, and other important causes of expenditure, such as agriculture/animal husbandry, health, business, and even emergencies (defined by the BSC members as illness, accidents, and insufficient funds for the completion of a project). The farmers are obviously very keen to invest in all of these areas. They also unequivocally demonstrated during the H-diagrams that they understand the role micro-finance can play in such investment. They do not, however, currently prioritise saving as a way of achieving such investments.

Based upon this data, it appears that TCSRDR must make more of a concerted effort to demonstrate to BSC members the linkage between regular saving, and success in investing in the top financial priorities such as health, education, and agriculture.

If TCSRDR can convincingly persuade farmers that micro-finance offers a way of addressing their most pressing expenditure concerns, there will also be a greater chance that members remain active in a BSC once they have had their land reclaimed. When speaking to the sole women-only committee, I asked what they normally discuss at the meetings. They replied that there was really very little to do, and nothing to discuss. They simply turn up, give money, and go. The question is, how long can such a passive group survive before members lose interest and cease to attend? If TCSRDR wants these groups to be a long term success, it must clarify the way in which saving and inter-loaning can benefit the other expenditure priorities of these groups, so that members begin to see SHG micro-finance as a priority.

It is interesting that Land Reclamation also comes very low on the farmers' list of financial priorities in *Table 6*. This is not surprising – after all, one cannot expect an optional project to exceed day to day production needs as a priority for farmers. It does, however, help to remind us of an important point – that land reclamation will only ever be a side-concern for these farmers, and that its importance in their lives should not be overemphasised. An appreciation of this fact will lead us some way to understanding why and how problems can evolve in BSCs.

This data can also be linked to the survey, in which we have already seen that BSC beneficiaries tend to be from wealthier and more influential sections of the populations. Their low prioritisation of land reclamation once again suggests that they see it as luxury not necessity. As such, we can take this as a further indication that the project should be expanded to include more of the potential beneficiaries whose economic position is, on average, far more marginal. For such people, land reclamation might be more of a necessity than a luxury.

Discussion

This report can be divided into two sections:

- 1) An examination of exactly who is benefiting from the Land Reclamation project.
- 2) An investigation into the success TCSRDR has had in linking land reclamation to SHGs.

These two sections can no longer remain separate. The survey data, relationship diagrams, status ranking, and social mapping all indicate that the Bhoomi Sudhar project is primarily benefiting the wealthier and better connected residents of these villages. The problem with this is that more marginal sections of the population are not becoming members of the BSC, and therefore do not have the opportunity to benefit from micro-finance. Because the project takes land reclamation as its starting point, the very poorest sections of these villages are not gaining access to micro-finance through this project.

That beneficiaries are more wealthy than non-beneficiaries is to be expected from a land reclamation project, and there is no doubt that this project has the potential to be very successful in the domain of land reclamation. Its weakness lies in the linkage between land reclamation and micro-finance. Because land reclamation is the most crucial factor in recruiting committee members, few marginal villagers are currently benefiting from savings and inter-loaning.

It must be acknowledged that the project has sought to encourage those without land to join the BSCs. Of the 51 BSC members I interviewed, however, only 1 was landless. This stands in stark contrast compared to the village survey which put the landless figure at 18%. 10 individuals without usable land have joined the BSC committees, yet their average good land stands at 25.82bg – far higher than any other group. This merely confirms the suggestion that those who are benefiting from this micro-finance program are already wealthy by the standards of these villages.

It thus appears that the people who are most critically in need of the development paths offered by conventional self help groups are not being included in this project. Because micro-

finance, inter-loaning, and micro-entrepreneurship come second to the formation of the group as a *land reclamation* committee, not only the landless, but also the poorer sections of the landed population are not benefiting from it. To recall; landed farmers with no *usar* have, on average, 49% less good land than current BSC members.

Thus, if TCSR is to be truly successful in alleviating poverty in the area surrounding Birawati, it must begin to more actively encourage individuals from across the community to join BSCs. Currently, it is the wealthy and better connected who are benefiting from the project. This is necessary, for such people provide strong leadership. It does, however, mean that the project's goal of raising the population as a whole is not being met.

It is worth asking why BSCs have attracted wealthy beneficiaries whilst failing to appeal to more marginal potential beneficiaries. One way of understanding this is to see land reclamation as a form of consumption. Following Douglas & Isherwood (1979), we can analyse consumption as the crucial element in the fixing and determination of culture – i.e. it is through consumption that people make otherwise fluctuating cultural meanings stable. A major point of Douglas & Isherwood's argument is to demonstrate that the ability to 'fix' cultural meanings in this way is not spread evenly throughout society; rather, it is disproportionately controlled, determined, and organised by the rich and powerful. The reason that they are able to do so is because of the differences in 'periodicities' between the rich and poor. Periodicity refers to the necessity of having to complete non-postponable tasks at a high frequency, for example, cleaning the house. The poor, due to their inability to consume luxury items that cut down on the frequency, have a much higher frequency of periodicities than the rich. In other words; due to more impoverished consumption patterns, they must complete more routine tasks on a more frequent basis. This, in turn, means that they are less likely to be able to attend the 'consumption rituals' (which can be anything from a celebration to a BSC committee meeting) at which new trends in consumption are set, fixed and decided upon. The result of this model is the continuation of inequality between rich and poor due to the ability of the rich to set the cultural terms of consumption and thereby gain continued access to new improvements which cut down on the frequency of their daily routine. This reduced frequency leads, in turn, to their increased ability to set the parameters of continued consumption.

How does this (admittedly complex) model relate to the present problem? I want to suggest that the TCSR land reclamation project is a service which BSC members are effectively 'consuming'. The consumption of this service is a cultural act – it involves the creation and fixing of new cultural concepts (relating to saving, inter-loaning, and micro-entrepreneurship), and as such, BSC meetings can be seen as 'consumption rituals', as described by Douglas & Isherwood. The poorer a farmer is, the less likely it is that they are going to be able to attend such meetings (due to high-frequency periodicities). Thus – it is the wealthy farmers who are more likely to attend these consumption rituals – it is thus the wealthy farmers who determine the introduction of new cultural ideas (most crucially the cultural idea of an SHG), and it is the wealthy farmers who are made more wealthy (and thus more able to contribute to consumption rituals) as a result of increased land through reclamation. The picture presented by this model is therefore one of circularity, in which the richer members of a village are able to continually control the cultural reproduction of society.

This theory is important to the present analysis because it helps to cement the proposition that greater effort must be made on the part of TCSR to encourage poorer farmers to benefit from this scheme. Despite the rather abstract nature of the theory, it can be illustrated by a simple observation. I noticed that every time I visited a village, it would be a relatively easy task to find at least a couple of BSC members relaxing at a *dhalan*. The implication of this is that the lives of these men are not characterised by a large number of high-frequency periodicities. In other words, their present financial situation puts them in a position from which it is easy to attend consumption rituals (BSCs) and therefore become more wealthy. What is more, in these villages, their relative affluence means that they can spend large amounts of time at leisure in places of communal meeting, and are therefore far more likely to hear about projects such as the Bhoomi Sudhar initiative.

The real question which all this data pushes us toward is whether land reclamation should be

organised by committee. As Bengali Colony proves, land reclamation is possible without the establishment of BSCs. Indeed, there is some evidence to suggest that the micro-finance objectives of a BSC can even hamper land reclamation; after all, problems in collecting debt are the most likely cause of BSC dissolution, and if a BSC collapses, up to 15 potential beneficiaries are lost from the scheme. This is partly demonstrated by the events in Setua, where a (now dismissed) field coordinator abused a BSC's savings by taking them and refusing to pay back. This led to the break-up of the group, and the loss of half of Setua's potential beneficiaries for this season. Although the actions of the field coordinator were highly unusual, this incident does demonstrate that by doubling up as SHGs, BSCs are being opened up to potential weaknesses and possible collapse.

The BSC members are not blind to such hazards. A 'problem tree' PRA exercise was conducted with one of the Guretha BSCs. An initial problem "*people not returning money in time*" was circled on a piece of paper, and then BSC members were asked to write causes of this above, and corresponding effects below. Causes listed included:

- People not paying debt.
- Inadequate support of the committee for the executive
- Members feeling a lack of responsibility.

The BSC members unequivocally linked such 'causes' to 'effects' including the possible break-up of the BSC.

Hence, organising land reclamation by committee can potentially cause two problems. Firstly, it might be contributing to the program's tendency to benefit the wealthy. This is because only those with sufficient time and information are likely to join the 'consumption ritual' of the BSC. If Douglas & Isherwood are to be followed, the implication of this is that the Bhoomi Sudhar project could actually be perpetuating inequality. Secondly, the BSC's dual function as an SHG has the potential to cause many problems which might cause divisions within the group.

There are some very effective BSCs; during an interview with the Sherpur group, members expressed a strong desire to start up their own collective enterprise, manufacturing roof beams. The group also appeared to be benefiting from strong leadership under a very active pradhan. In such cases, these BSCs have the ability to prove themselves a real success. This does not, however, tell a universal story. A few of the BSC members I spoke to expressed a slight annoyance at the idea of the BSC – they either felt that things would be more efficient if done individually, or they were simply only concerned with land reclamation and consequently uninterested in micro-finance.

It is possible that the presence of such individuals in a BSC could cause problems and perhaps even divisions in the group. And they are not the only ones who may not be best suited to working in a group; as the discussion of Douglas & Isherwood's theory suggests, for some people, especially the most socially marginal, being part of a committee might be more trouble than it is worth. Working on the logic of Douglas & Isherwood's theory, we should do our best to encourage such people to attend the 'consumption rituals' of the BSCs so as to give them a bigger stake in the 'fixing' of cultural meanings. That said, efforts to persuade them to join a committee might be futile, and as such, TCSRDR could consider offering the project on an individual basis.

The success in Bengali Colony indicates that as a technical procedure, land reclamation can very easily be carried out on an individual basis. That said, some of the BSCs are looking as if they have the potential to become active and sustainable centres of micro-finance and enterprise. Given that disinterested individuals can disrupt a BSC, and given that there is most likely demand for reclamation without the 'hassle' of a committee, I recommend that TCSRDR begins reclamation on an individual basis for those who want it, whilst continuing to expand the existing number of BSCs.

Throughout this study, field coordinators have been frequently mentioned, but their role has not been discussed in depth. Without the field coordinators, the project is impossible; they are the prime agents in recruiting BSC members, they collect beneficiary contributions at the meetings, and they have a big role in disseminating ideas and information about the purpose of BSCs. As the

relationship diagrams from Hironi and Guretha showed, they are also intricately related to many of the more influential members of the BSCs. For this reason, it makes no sense to talk about them in the abstract any more; after all, this is a small project operating on a highly personal basis.

For most of the time this research was being conducted, there were three field coordinators; Virpal, Dharanpal, and Chavinder. Dharanpal and Chavinder are the field coordinators shown, respectively, in the Guretha and Hironi relationship maps. During the week beginning 10th August 2009, both these coordinators resigned from the project, leaving only Virpal employed by TCSR. 2-3 new field coordinators must now be recruited, and this can be seen as an opportunity for the project to expand its reach. Both Dharanpal and Chavinder created strong and successful BSCs in Guretha and Hironi. Perhaps due to the fact that these are their native villages, however, the project does seem to have benefited a relatively closed group of more wealthy farmers. Surveys for both villages reveal that beneficiaries of the Bhoomi Sudhar project hold, on average, far more good land than potential beneficiaries (i.e. other farmers with *usar*).

This suggests several changes which could be made in the hiring of new field coordinators: firstly, that the replacement field coordinators are sent to work in a village to which they do not belong, and secondly, that they are given the task of recruiting new beneficiaries whose position within the village is marginal, and who may never have heard of an SHG before. Given the caste dynamics revealed by the social mapping exercise, it might also be worth appointing either a Jatav or Muslim field coordinator as a way of widening participation in the Bhoomi Sudhar project.

Unfortunately, due to the relatively young nature of this project, it is impossible to assess how effective it has been in reducing poverty; such results will have to wait until at least after current paddy crop has been harvested. It is, however, worth discussing how such an assessment might be made in the future. Shylendra, Rani & Patel (2003) provide a good model for looking at the impact of an agricultural development project through its effects on seasonal migration, and links the harmful effects of seasonal female migration to decreased school enrolment among children, in particular girls, who are taken to the city with their mothers. Badaun district is close to Delhi, and during my research, I spoke to a number of farmers who had family working in Delhi. Measuring whether the rate of seasonal migration decreases in the household of beneficiaries might be a way in which not only the economic benefits of this project can be measured, but also the social benefits. In assessing an irrigation project in Gujarat, Shylendra et al. also discuss how increased agricultural production led to a change in cropping patterns, most strikingly, the gradual expansion of a potential cash cropping market. This provides us with another potential way of measuring the success of this project.

Finally, there are several factors which threaten this project, and are beyond the control of TCSR. Firstly, the government is cancelling *usar* land belonging to many of the farmers in this region. The land was initially distributed to farmers under a government scheme, but now officials claim that it is essential to the local ecosystem and therefore must not be turned into productive farm land. As such, many farmers feel a great deal of uncertainty about the future of their *usar*, and are unwilling to invest heavily in reclaiming it. Secondly, drought this season has severely threatened all agriculture in Badaun district, including the newly transplanted paddy on reclaimed land. This is perhaps worth considering in terms of the long term future of the Bhoomi Sudhar project. By increasing the amount of productive land, TCSR is also increasing demand for water in this area. Poor rainfall this year suggests that TCSR should be promoting water conservation methods along with land reclamation. The Bhoomi Sudhar committees could potentially be incorporated in such a scheme. Currently, one of the most frequent requests made by farmers during my research was for TCSR to provide them with diesel for operating the bore-well pumps. This demonstrates not only their need for water, but also their reliance upon bore wells. With an ever-falling water-table, such water usage is unsustainable, and alternatives must be sought. TCSR should give serious consideration to the idea of promoting rainwater harvesting through BSCs.

Conclusions and Recommendations

An overall assessment of the project can be given as follows in *Table 7*.

Strengths	<ul style="list-style-type: none"> ● Successful technical process. ● Current BSCs are not facing major problems; they display solidarity and a willingness to work together. ● As the first plots of land are successfully reclaimed this season, other farmers should be convinced to join the project.
Weaknesses	<ul style="list-style-type: none"> ● The most marginal farmers in each village are not benefiting from this scheme – hence this project is not alleviating poverty as successfully as it could. ● Some of the most marginal farmers might be disinclined to become a member of a BSC. ● BSC members are currently not prioritising micro-finance and savings in a way which will make the committees sustainable once TCSRDR withdraws from the area
Opportunities	<ul style="list-style-type: none"> ● The need to recruit new field coordinators presents an ideal opportunity for the weaknesses in the project to be addressed ● There is plenty of time to educate and inform BSCs about the benefits of saving/micro-finance.
Threats	<ul style="list-style-type: none"> ● Lack of interest/understanding in micro-finance. ● Several factors which lie beyond the control of TCSRDR; drought and the cancellation of land.

Table 7

This project has therefore addressed its **key deliverables** in the following ways;

1. Effectiveness of Bhoomi Sudhar Committees in the program

The Bhoomi Sudhar committees have the potential to be very successful as organs of development. They are not, however, ideally suited to the needs of all farmers. Therefore, farmers should be given the opportunity to 'opt-out' of the BSCs, and have their land reclaimed on an individual basis.

2. Roles and responsibilities of the Bhoomi Sudhar Committees

If Bhoomi Sudhar committees are to meet their long term goal of becoming successful Self Help Groups, TCSRDR project staff must make a concerted effort to explain how and why group saving can benefit the financial priorities and concerns of the BSC members. In this way, the committees will be able to fulfil their long term responsibilities.

3. Effects on dynamics of socio-economic condition

This project has been found to be disproportionately benefiting the wealthier, better connected residents of the villages. This is in no small part due to the tendency of field coordinators to recruit close family members to the BSCs. It is important that large farmers benefit from this scheme. In order to truly contribute toward poverty alleviation, however, this project must become more inclusive. There are a large number of marginal farmers and landless labourers who stand to gain from either land reclamation and/or micro-finance – the project must reach out to them.

4. Identification of key issues

Increasing equal access to the project; promoting micro-finance as an end in itself.

Based upon this analysis, I suggest the following **key recommendations**:

1. Broaden participation in BSCs;
 1. Encourage different socio-economic and caste groups (particularly Muslims and Jatavs) to become BSC members.
 2. Encourage those who are unfamiliar with the concept of an SHG to become members.
2. Appoint new field coordinators to work in villages where they do not live.
3. When field coordinators are discussing saving and inter-loaning with a BSC, they must clearly explain how micro-finance can benefit other expenditure priorities, such as health, agriculture, and emergencies. In other words, explanations and demonstrations of microfinance should try to highlight the ways in which it can be integrated with other aspects of a farmer's life.
4. Allow individuals to reclaim land individually should they insist upon not being in a BSC.

APPENDIX 1

Hironi Social map:



Guretha Social Map:



Hironi expenditure matrix ranking:

Hironi - Mixture of RSCs						Expenditure						
① भूमि सुधार	y	①	①	①	⑤	=	⑦	①	①	⑩	5/1	
② बचत		y	=	4	⑤	⑥	⑦	②	⑩	⑩	2/1	
③ खान-पान			x	③	⑤	⑥	⑦	③	③	⑩	3/1	
④ घर बनाना				x	⑤	⑥	⑦	④	④	⑩	3/0	
⑤ शादी व्यय					x	⑤	⑦	⑧	⑤	⑤	7/0	
⑥ स्वास्थ्य						x	⑦	⑥	⑥	⑩	5/1	
⑦ सवारी							x	⑦	⑦	⑦	9/0	
⑧ तीर्थ								x	⑧	⑩	3/0	
⑨ कृषि									x	⑩	0/0	
		①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	7/0
		3	6	4	5	2	3	1	5	7	2	

① Land Reclamation -	
② Saving -	
③ Food -	
④ House-making -	
⑤ Marriage -	
⑥ Education	
⑦ Health -	
⑧ Motorcycle	
⑨ Pilgrimage	
⑩ Agriculture - water, Urea, seed, equipment	

600
500
1100

120
120
240

Bibliography

- Chambers, R (1994). “The Origins and Practice of Participatory Rural Appraisal” *World Development*, Vol 22, No.7.
- Chambers, R (1994). “Participatory Rural Appraisal (PRA): Analysis of Experience” *World Development*, Vol. 22, No. 9.
- Douglas & Isherwood (1979). *The World of Goods*, Routledge.
- PrimeNET (2008). *Review of Tata Chemicals Society for Rural Development*. (See project file in Babrala).
- Shylendra, Rani, & Patel (2003). “Towards Human Development: Impact Assessment of a Micro-Development Intervention in Western India” *Development in Practice*, Vol. 13, No. 1.
- TCSR (2008). *Bhoomi Sudhar Project* (initial project report – see project file in Babrala).