# Social capital building for tropical fruit tree diversity management

*M.P Vasimalai, M. Palanisamy and M. Kiran Kumar*

## GPD ‘passport’

<table>
<thead>
<tr>
<th><strong>GPD code:</strong></th>
<th>20</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Focus area:</strong></td>
<td>Collective action and social networking</td>
</tr>
<tr>
<td><strong>Character:</strong></td>
<td>System and institutional arrangement</td>
</tr>
<tr>
<td><strong>Species and varieties involved:</strong></td>
<td>Citrus, Garcinia and Mango</td>
</tr>
<tr>
<td><strong>Name of location:</strong></td>
<td>Amravati (Warud), Chittoor, Malihabad, Pusa and Sirsi sites, India</td>
</tr>
<tr>
<td><strong>GIS reference of location(s):</strong></td>
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<tr>
<td>Amravati (Warud): N 21°46′; E 78°26′</td>
<td></td>
</tr>
<tr>
<td>Chittoor: N 13°21′; E 79°10′</td>
<td></td>
</tr>
<tr>
<td>Malihabad: N 25°41′; E 79°70′</td>
<td></td>
</tr>
<tr>
<td>Pusa: N 21°49′; E 78°35′</td>
<td></td>
</tr>
<tr>
<td>Sirsi: N 14°61′; E 74°80′</td>
<td></td>
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<td><strong>Name of farmer (data resource):</strong></td>
<td></td>
</tr>
<tr>
<td>The leader Mr Rajendra N Karale and members of SHG based in Warud in Maharashtra State</td>
<td></td>
</tr>
<tr>
<td>The leader Mr Krishna Murthy and members of SHG based in Chittoor in Andhra Pradesh State</td>
<td></td>
</tr>
<tr>
<td>The leader Mr Sanjith Kumar and members of SHG based in Malihabad in Uttar Pradesh State</td>
<td></td>
</tr>
<tr>
<td>The leader Mr Ajit Kumar and members of SHG based in Pusa in Bihar State</td>
<td></td>
</tr>
<tr>
<td>The leader Mr Shantaram Gouda and members of SHG based in Sirsi in Karnataka State</td>
<td></td>
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</tbody>
</table>
Helplessness is the worst form of rural poverty. Collective action allows resource-poor, marginalized men and women farmers to build their social capital and generate new assets for their families’ well-being. Social capital can be defined as the features of social organizations that facilitate co-ordination and co-operation for mutual benefit of the members and society as a whole (Putnam, 1995; 2001). Social capital consists of social networks, social connections, relationships and ties, groups, trust, access to wider institutions, the ability to demand and others. These assets and their uses are affected by elements of vulnerability and by processes, institutions and policies. Social capital, like other forms of capital, can also be affected or influenced by the legal system and judicial rules, property rights, political systems, gender perceptions, equity, civil society, trade barriers, cultural norms and values, informal networks and formal institutions (Sajise and Sthapit, 2006). Social networks and connections, reciprocity, trust and mutual benefit encourage collective action to achieve more sustainable development (Bowles and Gintis, 2002; Pretty and Ward, 2001). Government and donor funded projects seek to improve their effectiveness and efficiency by supporting the formation of social capital in the form of groups. Self-help groups (SHGs) or Farmers’ Groups (FGs) provide an entry point for efforts to work with community members. Microcredit initiatives (and similar practices such as saving and credit schemes, Community Biodiversity Management fund, etc.) are considered a good practice for mobilizing social capital by helping poor farmers to access financial, human, physical and natural assets.

Empowering farmers and their institutions, creating space for social learning and innovation and a dynamic system of small-scale innovation might be a sustainable way to mainstream good practices for livelihood options and conservation actions using local biodiversity (Chapter 3; Sajise and Sthapit, 2006). Through collective action, it is assumed that natural resources can be conserved and the flow of benefits from them can be shared more equitably among participants. Enhanced social capital can improve environmental outcomes through decreased costs of collective action, increase in knowledge and information flows, increased cooperation, less resource degradation and depletion, more investment in common lands and water systems, and improved monitoring and enforcement (Anderson et al., 2002). Social capital, embedded in participatory groups within rural communities, has been central to equitable and sustainable solutions to local development problems (Pretty and Frank, 2000). Where social capital is well-developed, local groups with locally developed rules and sanctions are able to make more of existing resources than individuals working alone or in competition (Pretty and Ward, 2001).

DHAN Foundation1 assessed and developed a process to improve social capital in the five Indian sites of the UNEP-GEF project on the ‘Conservation and Sustainable Use of Cultivated and Wild Tropical Fruit Diversity: Promoting Sustainable Livelihoods, Food security and Eco-system Services’ in partnership...
with Bioversity International, the Indian Council of Agricultural Research (ICAR), the College of Forestry, Sirsi, the NGO Life Trust and EcoWatch in the Sirsi site. This chapter describes the experiences encountered during the TFT project to build social capital within communities in India through a process of establishing and strengthening SHGs for the benefit of their livelihoods and the conservation of local diversity in fruit tree species and varieties.

Learning and building on successes

Over the last 20 years, DHAN Foundation has promoted the improvement of social capital among marginalized communities through the development or strengthening of localized community organizations (SHGs or other existing organizations) around microfinance. DHAN has worked with more than 1.5 million poor women, small and marginal farmers, landless labourers and fisher folk across India, and has rich experience in organizing more than 55,000 SHGs and networking them into 395 independent self-governed community organizations. The SHG members gain access to and control over financial capital through their own savings and subsequently develop linkages with formal banking and financial institutions. During 2013–14 alone, the SHGs promoted by DHAN Foundation mobilized INR4,386 million (US$70 million) from local commercial banks, at an average annual interest rate of 12 per cent. The same members, if unorganized and borrowing from informal markets, would have to pay interest between 36 per cent and 60 per cent.

These SHGs function through mutuality, trust and self-regulating mechanisms and decision-making processes. They make collective decisions and work in cooperation for a common purpose. Through the structure of a federation of SHGs, members can enhance human capital by participating in training courses that build appropriate production and marketing skills, and create and strengthen physical capital in the form of assets such as farm inputs, storage and post-harvest processing infrastructure. Besides, within an organized structure of a federation, marginalized groups can increase their political, social and economic influence, recognition and bargaining power. A federation of SHGs also serves as peer pressure and a resource for solving the problem of defaulters.

Methodology of social capital building

DHAN Foundation has refined a process for social capital building through SHGs following nine actions grouped into three phases (Table 29.1). The duration of each of these phases varies with the capacity of the SHGs, community leadership and interest, and the experience and community mobilizing skills of the community organizers. Completing all three phases takes at least three years but may exceed that in some contexts. Once the desired number of SHGs is formed and capacity building achieved, phases 1 and 2 are generally assumed to be completed. In general, phase 3 takes a longer
time, and mostly includes promotion of the federation, opening an account in a commercial bank, registration, leadership building and mainstreaming linkages with other government service providers.

**Phase 1: Preparatory phase**

In the context of the TFT project, analyzing the existing situation was the first step for promoting primary groups of farmers. DHAN Foundation carried out a diagnostic study (using Participatory Rural Appraisal) to assess the status of social capital among male and female farmers and orchard labourers involved in tropical fruit tree cultivation among small and marginal fruit growers in five sites within India (Chittoor in Andhra Pradesh, Sirsi in Karnataka, Amravati in Maharashtra, Pusa in Bihar and Malihabad in Uttar Pradesh). Various participatory tools were used to assess groups’ interest, relationships and collective actions (Plates 77–80). The purpose of the activity is to understand local dynamics, needs, opportunities, potential and challenges. Both men and women were interviewed to ensure a more gender-equal approach and to facilitate the inclusion of the poor such as labourers and smallholder farmers with orchards in the project.
For this diagnostic study, DHAN Foundation teams visited all the sites and the fields of custodian farmers and interacted with them to understand their needs and priorities. Using a structured questionnaire, teams interviewed farmers representing all the villages and conducted focus group discussions with them. They also reviewed secondary data of socio-economic well-being status and land use. The diagnostic study brought out key lessons for each of the project sites with respect to social capital among the farmers and labourers.

Preliminary site characteristics from the diagnostic survey are presented in Table 29.2. In all sites, farmers expressed constraints in accessing credit from banks, and several were under pressure of loans from moneylenders and intermediaries. The informal groups that existed in a few of the villages lacked institutional structure, systems and methods.

These exploratory PRA activities aim to build rapport, quickly assess the agricultural and social needs of the community and identify interested FGs in

### Table 29.2 Site characteristics and key socio-economic constraints

<table>
<thead>
<tr>
<th>Site</th>
<th>State</th>
<th>Communities</th>
<th>Conservation priority</th>
<th>Constraints/barriers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amaravati</td>
<td>Maharashtra</td>
<td>Jarud, Nagziri and Bargaon</td>
<td>Citrus Mango</td>
<td>Access to credit for resource-poor farmers, Lack of collective marketing despite presence of Ministry of Agriculture, Inclusiveness lacking</td>
</tr>
<tr>
<td>Chittoor</td>
<td>Andhra Pradesh</td>
<td>Polakala, Talupulapalle Bangarupalyam</td>
<td>Mango</td>
<td>Single variety dominant for commercial production, Water stress, Small and marginal farmers are yet to be organized, Limited women’s participation in decision making</td>
</tr>
<tr>
<td>Malihabad</td>
<td>Uttar Pradesh</td>
<td>Kasmandikalalan, Mohamednagar Talukedari, Sarsanda Gopramau</td>
<td>Mango</td>
<td>No local organizations exist, Credit access through money lenders at high interest rates, Limited women participation in decision making</td>
</tr>
<tr>
<td>Pusa</td>
<td>Bihar</td>
<td>Mahamda, Jagdishpur, Dhubgama Murliyachak</td>
<td>Pomelo Mango</td>
<td>Unorganized farmers and farmers’ groups, Limited women participation in decision making, Inclusiveness lacking</td>
</tr>
<tr>
<td>Sirsi</td>
<td>Karnataka</td>
<td>Koligar, Gonsar Kulibeedu</td>
<td>Appe mango Garcinia</td>
<td>Out migration is main issue; informal networks of farmers and groups exist</td>
</tr>
</tbody>
</table>
the community. During this process potential groups were also identified by the community organizer and site management team. A Padayatra (a mass procession of local stakeholders and villagers) was organized to spread the message to a larger audience that facilitated formation of more groups in each site.

The group formation process takes place after identifying a cluster of villages with the potential to promote 15 to 20 FGs, which could be managed by a local field associate. DHAN Foundation professional staff and local field associates lived within the community for each cluster of villages. The purpose of this is to build the capacity of local field associates to form the groups, nurturing them and gaining the confidence and trust of the villagers. Professional staff went with the local field associates and demonstrated the process of promoting a group.

A community mobilization team led by DHAN Foundation identified potential members of small and marginal orchard farmers including the landless labourers working in the orchards. Focus was given to include all the small and marginal farmers, including both men and women involved in fruit production. In this project, 35.8 per cent of the 3,276 total members were women. Different knowledge held by women and men, as well as the importance of ensuring equitable benefits and cultural sensitivity, require not only that information be disaggregated by gender but also that meetings be held separately by the same gender. Initially 2 mixed, 14 women and 45 men SHGs were formed and later, by 2015, a total of 11 mixed (115 men and 57 women members), 89 women groups (1,117 members) and 147 men groups (1,987 members) totalling 247 SHGs (3,276 members) were organized. This reflects interest shown by the community women as well as conscious attempts made by the project staff and DHAN to ensure participation of women in the project. The local field associates gathered people in a common place and conducted formal meetings with villagers. The aims and objectives of the TFT project, the importance of biodiversity conservation and the role of communities in conserving the biodiversity were explained. The proposed activities of the project and potential benefits for the community from the project were also discussed. A video about the project, group formation process and activities was screened. Pamphlets about the project with photographs were shared with the members. Following this, potential families to be grouped in the village were identified through a wealth ranking process to identify a marginalized and low-income group of farmers.

**Phase 2: Group formation phase**

Each group elected office bearers, namely a President, Secretary and Treasurer, among their members. By-laws for the group were adopted with the consensus of all members (see Box 29.1). The by-laws broadly cover the objectives of the group, timings and frequency of meetings, amount of savings by members, interest to be paid on savings, loans and purposes, rate of interest for the loans and repayment period.
DHAN professionals facilitated detailed discussion among the members on the roles of leaders, duration of their leadership positions, accounting system, auditing and appointing an accountant for book keeping. Once agreed upon the group norms, all the members came forward to pay a nominal entrance fee to confirm their membership in their group. The group also decided on how much to save each month with the flexibility that any member who wished to save more could be encouraged to do so.

The group meeting system was then introduced to all the members. The purpose of group meetings is to facilitate discussion on issues related to

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**Box 29.1 Salient points in the by-laws of Kampalli Mamidi Rythula Sangam (Kampalli Mango Farmers’ Group)**

1. The group will be formed with farmers of Kampalli village only and they should be mango growers.
2. The meeting will be conducted on a fixed date of every month at the village temple.
3. Each member agrees to save minimum Rs250 per month in the group.
4. Members agree to an interest rate of 12 per cent per annum for any amount of internal loan.
5. Members must repay the loan amount as per the demand fixed by the group.
6. The group agrees to open a savings bank group account in Sapthagiri Grameena Bank.
7. The account will be operated by three leaders of the group, President, Secretary and Treasurer.
8. All members agree to enrol under a life insurance scheme with Life Insurance Company (LIC) to receive benefits from government scheme.
9. Only one member per family should be part of the group.
10. Each member has to pay INR20 as an entrance fee when joining.
11. Members of the group should attend all capacity-building programme and conservation efforts organized by the TFT project on a rotational basis.
12. For external loans the interest rate will be decided based on the bank rate of interest but will not be more than 24 per cent per annum.
13. Leaders will be rotated once every three years.
14. The group should undergo auditing every year.
15. Group should try to avail of benefits from mainstream departments mainly for mango.
cultivation, marketing and technology in addition to conducting savings and credit activity in the group. It is conducted in a standard sequence to make it a routine. At the end of the meeting, proceedings are recorded in the minute-book and all the members sign the minutes. The groups have conducted the meetings thereafter following the same following steps:

- Group meetings start with prayer. The members sit in a circle, so that everyone can see the proceedings.
- The president presides over the meeting.
- Discussion on agenda for the meeting follows.
- The minutes of the previous meeting are reviewed.
- Attendance of the members is recorded in the minute-book.
- Financial transactions like savings, lending to members, payment to banks and others are carried out.
- Documentation and disbursal of loans is carried out.
- Awareness and participation in community action plans of tropical fruit tree diversity.
- With resolutions taken, recorded and signed by all the members, the meeting ends.

After the first meeting, a team led by a professional from DHAN Foundation did a quality check of the group. The quality check focused on conceptual clarity with all the members on the by-laws and norms, meeting process and transactions in the group. In the subsequent meeting, baseline data of all the members, their family details, occupation, income and expenditure and asset and credit position were collected.

After the quality check, all the group members were provided with a set of notebooks and passbooks to keep transparent accounts. Field associates were trained in group account writing and the field associates also helped the office bearers of the group to keep the accounts in good shape.

Three months after forming the farmers’ group, a savings bank account was opened in the group’s name in the nearest branch of a commercial bank, with the President, Secretary and Treasurer as signatories based on the resolution of the group. In the fourth or fifth month, the members were given orientation on bank linkage, quality of operations in the group including attendance, savings and repayment. The purpose is to make people treat the bank’s money as their own money and handle it responsibly. In the sixth month, with proper conduct of meetings and transactions, the group can apply for a bank loan. DHAN has always advocated and promoted linkages between the self-help groups and local commercial banks as poor smallholder families have often been kept away from the banking system due to its high transaction costs and thus failed to benefit from it. At the same time, by working together with banks, they gain confidence and courage to demand more services with quality, i.e. feeling of self-respect and being empowered. Capacity building such as this puts the SHGs and banks on an equal footing to negotiate and exert pressure mutually. They
are also encouraged to participate in community action plans related to biodiversity-based livelihood programmes.

**Phase 3: Consolidation phase**

Farmers were taken for an exposure trip to other successful SHGs and custodian orchards and given an orientation about the projects and on people’s institutions. Clusters of 15 to 20 FGs were organized into Farmers’ Associations representing the office bearers of each group. All the groups in a Gram Panchayat were promoted as Farmers’ Associations. Farmers’ Associations meet once a month to discuss their progress. They are a forum for cross learning, and decisions taken in the Farmers’ Association meetings are shared in the respective group meetings.

The purpose of the Farmers’ Association is to bring sustainability and stability to the groups. This kind of nested institution model has been developed and replicated (Figure 29.1) by DHAN Foundation across India during the last two decades to link several local level public sector service providers and leverage technical and financial resources and mainstreaming linkage with diverse actors in the district.

The rationale for federating or creating an overarching structure of several SHGs can be political, economic, social and environmental as it helps to improve marketing and engaging in value chains but also to increase collective action for biodiversity conservation efforts and to be able to change policies:

- Discuss issues that need collective action and common agreed rules and regulations such as biodiversity conservation
- Ensure aggregation of supply that is often required and requested by larger buyers who pay a better price

![Figure 29.1 Structure of people’s institutions for collective action.](image-url)
• Enable investment in processing equipment required for food safety standards such as HACCP, which is often too big an amount for a single SHG
• Create bargaining power for price negotiations, as dedicated staff (marketing officers) can be hired to continuously search and be in contact with potential buyers
• Enable creation of added value through certification such as fair trade or organic, which is mostly too difficult and expensive for a single SHG
• Ask for funding or help from government organizations or NGOs
• Link up with government agencies and increase their political bargaining power for the needs and demands of all its members

A professional manager with entrepreneurial skills and expertise can be hired from within or outside the community to support the entrepreneurial skills of the members, which is often low (see Chapter 22).

Recent developments in India show that the relatively new legal entity ‘Producer Company’, which is similar to a federation of SHGs or a cooperative but with a stronger enterprise focus, is quite successful. They are all structures to promote FGs, Farmers’ Associations and a Farmers’ Federation in the project (collective action) and are seen as an exit strategy to maintain the sustainability of interventions (Srinivasan and Tankha, 2010).

Federations of FGs were promoted in each of the five sites a year after forming the groups. The need to promote Farmers’ Federations was discussed in special meetings organized with office bearers of the FGs and in all the group meetings. Then Farmers’ Federations were promoted in each site. The Farmers’ Federation develops links with related institutions and helps members to avail themselves of government schemes for conserving biodiversity. They are slowly starting to address development issues.

In all of the five project sites of TFT project, a total of 247 FGs (147 men, 89 women and 11 mixed groups) have been promoted and federated into five Farmers’ Federations, one for each site (Table 29.3).

To create awareness about biodiversity and organize diverse activities on livelihoods and conservation, systematic efforts were undertaken in all five sites. The importance of biodiversity conservation was discussed during the village meeting, group meeting, and during events such as diversity fairs and farmer exposure visits. As a result, farmers’ participation increased in all events from training courses to implementing various biodiversity conservation activities.

Mainstream linkage of FGs in all of the five sites was initiated. Banks, the Life Insurance Corporation of India (LIC) and other ministerial departments responded positively to this initiative. As a result, FGs have been linked with agriculture and horticulture departments at Sirsi. Farmers have received agricultural inputs from the department at a subsidized price and FGs have received horticultural inputs distributed to their members free of cost. The Farmers’ Federation of Sirsi collected a life insurance premium from its
<table>
<thead>
<tr>
<th>Name of the site</th>
<th>Villages</th>
<th>Potential members</th>
<th>Total members</th>
<th>Men</th>
<th>Women</th>
<th>Total members</th>
<th>Total savings in INR</th>
<th>Loan outstanding with members in INR</th>
<th>Community Biodiversity Management Fund in INR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amravati</td>
<td>10</td>
<td>115</td>
<td>51</td>
<td>147</td>
<td>454</td>
<td>601</td>
<td>391,080</td>
<td>381,100</td>
<td>200,000</td>
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<tr>
<td>Chittoor</td>
<td>8</td>
<td>100</td>
<td>22</td>
<td>301</td>
<td>0</td>
<td>301</td>
<td>1,007,950</td>
<td>1,503,717</td>
<td>200,000</td>
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<tr>
<td>Malihabad</td>
<td>17</td>
<td>125</td>
<td>61</td>
<td>597</td>
<td>190</td>
<td>787</td>
<td>388,905</td>
<td>220,700</td>
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<tr>
<td>Pusa</td>
<td>17</td>
<td>110</td>
<td>46</td>
<td>539</td>
<td>205</td>
<td>744</td>
<td>868,925</td>
<td>790,432</td>
<td>200,000</td>
</tr>
<tr>
<td>Sirsi</td>
<td>19</td>
<td>140</td>
<td>67</td>
<td>518</td>
<td>325</td>
<td>843</td>
<td>598,040</td>
<td>359,382</td>
<td>2000,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>65</strong></td>
<td><strong>590</strong></td>
<td><strong>247</strong></td>
<td><strong>2102</strong></td>
<td><strong>1174</strong></td>
<td><strong>3276</strong></td>
<td><strong>3,254,900</strong></td>
<td><strong>3,255,331</strong></td>
<td><strong>10,000,000</strong></td>
</tr>
</tbody>
</table>

Note: 1 USD = approx. INR 63
members and insured its members with LIC. The Federation of Pusa explored, with NABARD (National Bank for Agriculture and Rural Development), ATMA (Agriculture Technology Management Agency), KVK (Krishi Vigyan Kendra), RAU (Rajendra Agricultural University) and the district horticulture department, training options and the possibility of availing of various schemes for development. Resource people were engaged from these institutions to provide relevant training to the farmers on aspects of conservation, cultivation, consumption and commercialization of fruits.

Needs-based and income-oriented training programmes such as pickle making, *Garcinia* jam preparation and jackfruit biscuit preparation were organized at the Sirsi site, whereas in the Pusa site, as well as a special type of mango pickle making, training on good agricultural practices for mango, grafting methods and efficient utilization of fertilizer were given. In Chittoor, training was given on mango pest management and roadside mango marketing. Farmers were taken for exposure visits and to diversity fairs to raise awareness and market connections. At the Amravati site, training was given on *Phytophthora* control, orange dish preparation, and pest and disease management in *Citrus*. Access to elite planting materials has been arranged for the farmers.

The Farmers’ Federation developed a proposal and submitted to NABARD for the Sirsi, Pusa and Amravati sites to promote a Farmers’ Producer Company. A Farmers’ Producer Company would arrange orchard and agricultural inputs for farmers. It would also carry out collective marketing and value addition of fruits so that it could obtain a better price for the fruits produced by its farmer members.

In each site, a Community Biodiversity Management (CBM) Fund was established (see Chapter 3) with farmers’ monthly savings supplemented with seed money provided by the project. The goal of the fund is to address both development and conservation objectives of households and the community (Shrestha et al., 2013). Local groups should set their own income-generating activities and work together to support community-based conservation efforts. To continue the biodiversity activities through the FGs, a CBM Fund was set up at project sites to which an amount of INR200,000 (about US$3,210) per site was released to each group’s bank account. The group gave the money to its members as loans, mainly for activities related to conservation. Any group that is in need can approach the federation for support through the CBM Fund. This rotation of funds generates a small income every year and grows, which in turn acts as capital for the federation. If needed, this CBM Fund can be used as a capital investment for taking up marketing initiatives by the federation. The federation can raise more funds from other sources such as matching grants and/or revolving funds by showing the CBM Fund as collateral and plan for implementing biodiversity conservation activities. For all transactions of the federation, a separate book of accounts is maintained.
Impact on livelihoods and biodiversity

Though the process of promoting social capital was initiated just a year before the closure of the TFT project, DHAN Foundation attempted to promote the needed structures and mechanisms that could strengthen social capital. Some of the features of the social capital built in the project sites were:

- FGs, Framers’ Associations and Farmers’ Federations were promoted in all five project sites including men and women farmers and landless labourers. Thereby the project created opportunities for small and marginal farmers, and women and landless labourers, who were often not included in conventional agriculture research and extension activities.
- The entire course of social capital formation was highly process-oriented at all stages of promotion starting from diagnostic study, Participatory Rural Appraisal, group formation and development, day-to-day functioning of groups and creation of subsequent structures like Farmers’ Associations and Federations.
- A pool of leaders has been identified at the FG level, and at the next levels of Association and Federation. Out of the total members in FGs (3,276), about 950 members (609 men and 341 women) have been chosen by their fellow members as leaders to run their groups. This has created ample opportunities for the leaders to acquire leadership capacities through training.
- Savings, lending and insurance activities introduced in the FGs helped create a favourable environment for mutual cooperation (deciding on whom to lend to), peer pressure (exerting pressure on members who had wilfully not repaid), honesty and transparency (in handling group money), collective decision making, and so on.

All these determinants played a critical role in building trust and mutuality among the members, which led to enhanced social capital. As a result, these farmers were able to mobilize INR3.25 million (US$51,587) in the short period of one year. An equal amount to this they lent to all the members as well, for various farm-related credit needs.

The collective strength of the FGs, their Associations and Federations was helpful in influencing local commercial banks to connect with them, lending to groups and securing insurance services offered to the members. These would not have happened if the farmers had been unorganized and had no institutions to represent their interests. The case studies in Box 29.2 and Box 29.3 give a flavour of the livelihood benefits and biodiversity benefits supported through the project.
Conclusion and challenges

It took the national TFT project management team in India substantial time to realize that social capital is a pre-requisite for the sustainable on-farm management of tropical fruit tree diversity. Bringing civil society on board in the midst of the project can be considered a positive transformative change amongst a hard core research system. The experience of social capital building for the TFT project implementation was very encouraging, even though not initiated from the outset. Major challenges have been lack of technically sound rural institutions on the ground in most of the sites. Researchers are used to working independently on technical matters without sensitizing the community or creating a common platform for networking civil society, the private sector

Box 29.2 Trust fund to promote collective action on tropical fruit tree (TFT) species – case study

Sri Laxinarasimha Women’s Group (LWG) in Salkani village and the Village Forest Committee (VFC), Kilara, in Sirsi site, India, received a modest fund of INR18,000 (about US$285) each as a trust fund under the aegis of the College of Forestry, Sirsi to encourage on-farm and in situ conservation of tropical fruit tree diversity. It was deposited and operated through a cooperative bank as a separate account. Guidelines for the effective utilization of the trust fund were developed by the members and they prioritized the activities to be undertaken, which were facilitated under the TFT project. The members of LWG Salkani utilized this fund to get training on pickle making and marketing as well as to visit a famous mango pickle factory. The members of VFC Kilara chose to collect rare ‘appe midi’ (aromatic pickle mango) types and to establish a diversity plot of TFT species. After three years, LWG was successful in producing about 400 kg of pickles in 2014 from zero production in 2011. The VFC, on the other hand, has established a diversity plot in 2 ha of land, consisting of 70 different varieties of the ‘appe midi’ types and 10 species of Garcinia. LWG focused on making pickles from famous varieties of appe midi such as Malanji and Nandagara and marketed them through a co-operative society in Sirsi as a brand (today the turnover is about US$2,000). Today the diversity plot established at VFC Kilara has become perhaps the largest ex situ conservation area of very rare varieties of appe midi and Garcinia, from which interested nursery experts around the village can get scion material for their grafting work and further spread these types.

Source: Vasudeva R.
and government actors. Farmer or self-help groups organized around a Community Biodiversity Management (CBM) Fund have started off well with social capital building practices but require long-term nurturing and support for sustainability and effective use.

Box 29.3 Biodiversity conservation through collective action

Mr Krishna Murthy, a 37-year-old farmer, lives in Kampalli Village of Talupulapalle community in the Chittoor site of the TFT project. His family is very small, with only three members. In the TFT project, he is one of the most active participants. He attended the following training programmes after he became a member of the FG:

- Pest management
- Registration of local, ‘naati’ varieties
- Post-harvest technologies in mango for processing and export
- Sensitization workshop for mainstreaming mango diversity conservation
- SHG concept and book keeping

After attending these training courses, he slowly started practising many new methods in his orchard such as basin formation before the rainy season, application of tank silt, and safeguarding local varieties.

He came forward to promote Kampalli Mango Farmers’ Group after attending a concept seeding meeting organized by DHAN Foundation and was able to succeed in motivating 11 other like-minded farmers. As a leader of the group, every month he conducts meetings, collects savings from all members, ensures entry of books of accounts, etc. From the group CBM Fund he took INR5,000 as a loan for procurement of fertilizers and repaid the entire amount to the group within 6 months. He was able to motivate all the members of the group to enrol under ‘Aam Aadmi Bheema Yojana’ (a subsidized life insurance scheme) by paying INR100 per member as a premium and ‘Universal Health Insurance Scheme’ by paying INR500 per member as a premium. He was able to mobilize kitchen garden kits from research stations, fruit fly traps, mango harvesters and mango diversity boxes and supplied them to all the group members to promote the importance of tropical fruit tree diversity in the community.
References


Notes

1 DHAN (Development of Human Action) Foundation, a not-for-profit development institution engaged in poverty reduction at the grassroots for more than two decades in India, has evolved a model of building sustainable people’s organizations around development issues (DHAN Foundation, 2009). The experience of DHAN in building more than 300 independent people’s organizations around the themes of microfinance, conservation and development of water resources, rainfed farming development, coastal conservation and livelihoods since 1997 has been useful in the creation of a community organization model for the Tropical Fruit Tree project. Learn more about DHAN at (http://www.dhan.org).

2 Gram Panchayat is a local self-government, which is the third tier in the three-tier federal structure of Indian Government. After the Central and State governments, Gram Panchayat is the bottom level structure that is led by elected representatives and leaders. They execute development programmes at the village level.