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Social Entrepreneurship by Community-Based Organizations: Innovations and Learning through Partnerships

A.K.M. Shahidullah and C. Emdad Haque

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Abstract

This chapter examines the social entrepreneurship potentials of community-based organizations (CBOs) linked to nongovernmental organizations (NGOs) in the implementation of development programs. The conceptual framework of the study draws on the existing literature on social entrepreneurship and cooperatives. The study highlights the social and ecological roles and significance of CBOs in the creation of social value at the local community level. The research findings reveal that NGO-CBO partnerships help to transform CBOs into social enterprises by creating revenue generation streams. Such partnerships also catalyze social innovations and social learning outcomes. In this chapter, three case studies from Bangladesh are examined, which demonstrate how the social entrepreneurial roles of these CBOs have been instrumental in the management of local natural resources and in fostering social learning. The case studies reveal that institutional support and favorable public policies are crucial in sustaining social entrepreneurship by CBOs.

Keywords: community-based organization, NGO-CBO partnership, social entrepreneurship, social innovation, social learning

1. Introduction

Partnerships between nongovernmental organizations (NGOs) and community-based organizations (CBOs) have become a significant force in efforts to address social issues through collective means [1]. In facing the challenges of attaining sustainability and other social objectives, NGOs are increasingly adopting an entrepreneurial approach. The most significant approach

that emerged in recent decades is the “social entrepreneurship” model in which small enterprises are established to provide goods and services directly tailored to local needs and sustainability goals [2]. Such affiliated CBOs play important development roles in the rural and low-income areas of poorer-income countries, where the government is unable or unwilling to provide necessary social services [3,4]. It has recently been observed in Bangladesh that most CBOs partnered with development NGOs play catalytic roles protecting and promoting the management of local ecological resources, thereby supporting local sustainability [5].

NGOs are moving towards entrepreneurship and developing innovative means of revenue generation to enhance their financial capacity and sustainability [6,7]. However, the potentials of such shift in the case of their partner CBOs have seldom been explored, as the existing literature typically assumes that all CBOs are nonprofit organizations (NPOs) [8]. Although NPOs are nonprofit by mission, they still typically seek financial self-sufficiency to cover costs and provide needed services without relying on outside donations [9]. The study therefore inquires: (i) If NGOs can move towards social entrepreneurship for self-sufficiency and sustainability, could their partnering CBOs also adopt the similar path? (ii) Do CBOs entail social entrepreneurship potentials that could be harnessed to enhance their capacities to sustain? (iii) Can the NGO-CBO relation be leveraged to ensure social entrepreneurship by CBOs? The objective of the study is to examine whether CBOs are able to transform themselves into social enterprises and how this transformative process, which has reliance on partnership with NGOs, contribute to social innovations and learning.

2. Entrepreneurship by CBOs: partnerships and innovations

The entrepreneurial potential of community groups has been debated since the 1990s. Although cooperatives, mutual societies, associations, and organizations not owned by shareholders have always existed, they have rarely been considered businesses or market-oriented organizations [10]. Instead, they were merely labeled as the “social economy” representing the so-called “third sector” [11]. This consideration was contested by numerous authors who argued that development organizations should evaluate the strengths of local organizations [12]. Other scholars [e.g., Refs. 13,14] also asserted that developmental activities that compromise CBOs are incapable of fighting poverty.

Based on the principle that enterprise development is the key to economic development [15,16], various development promoters undertook numerous projects aimed at establishing small businesses at the community level [17]. Since the 1990s, a key development in the operation of nonprofit ventures has been the adoption of microfinance—a phenomenon often referred to the “microcredit revolution.” The microcredit-oriented development mechanism was adopted and expanded by NGOs using participatory development strategies. This approach recognizes the ability of local communities to take action to improve their economic and social conditions [18], leading to the creation of many CBOs, self-help groups, women groups, and peer groups around the world. The resulting partnerships between NGOs and CBOs encouraged interactive and adaptive learning processes among community members—

what Berkes [19] termed as “social learning.” As a result of these developments, social issues such as livelihood security and environmental conservation in poor communities—as well as that of fragile ecosystems—came to the forefront of the global development agenda [20,21].

Assessments of the validity of CBOs as self-sustaining entrepreneurial ventures vary. For instance, Chell [22] insisted that social and community businesses have a tendency to (i) be grant dependent, (ii) be non-self-sustaining, and (iii) employ nonentrepreneurial staff. These tendencies can undermine the social value of CBOs by forcing them to seek donations to fund interventions in their target communities. Forwarding a contrary view based on an empirical study of 250 CBOs in Bangladesh, Thompson [23] claimed that external supports are not necessary to the survival of CBOs, as most of them demonstrate the capability for self-sustainability and improvement with minimal support following the expiry of projects.

An innovative approach for CBOs to be self-governing and self-sustaining is advocated by Aryal [24]. The proposed approach suggests CBOs to seek the help of NGOs in accessing funding opportunities from commercial banks and developmental credit agencies. With such financial support, CBOs would be more easily able to undertake income-generating activities, while the partner NGOs oversee their entrepreneurial affairs for a reasonable period. Similarly, Datta [25] emphasized a functional partnership wherein CBOs can acquire the necessary knowledge and skills to become self-sustaining from their associated NGOs. Nonetheless, questions remain as to whether entrepreneurship by CBOs is tenable and whether developmental NGOs can adequately facilitate such transitions. Because CBOs have proven effective at managing local resources and addressing social issues, we argue that, to address complex social issues and challenges [26], long-term sustainability, especially the financial sustainability of CBOs, must be ensured by supporting their social entrepreneurial drive.

2.1. NGO-CBO linkage towards social entrepreneurship

NGOs have been the basis of study of social entrepreneurship. According to Dart [27], “social enterprise” can be viewed as a set of strategic responses to a variety of environmental and social challenges that NGOs typically address. These responses lead NGOs to develop strategic partnerships with institutions based at the local community level. Such partnerships demand innovative approaches involving the creative reallocation of resources and reconciliation with traditional ways of operating in the sector [28]. There is ample evidence to suggest that such partnerships were instrumental to the development of local community-based enterprises worldwide [29–32]. Several studies observed that the lack or loss of such partners results in failure [33,34].

Both NGOs and CBOs perform different functions within a partnership. NGOs are well placed to explore opportunities and identify key resources as well as to provide services such as start-up funds, institution building, business networking and marketing, innovation and knowledge transfer, technical training, research, legal support, infrastructure, and community health and social services that CBOs need to become self-sufficient [35,36]. In the partnership process, CBOs place their organizational capacity, bring local perspective, and use social capital to carry out the partnerships goals and NGO-devolved developmental responsibilities.

2.2. Social innovation and learning

The present study is situated within the literature on social enterprises and is placed by reviewing the current theoretical models of non-profit-driven social entrepreneurship. The process of social entrepreneurship is not well defined, and there is a lack of theoretical and evidence-based research on these processes in the context of nonprofit operations [7,37]. This lack of clarity and consensus on the definition of social entrepreneurship [38] creates ambiguity regarding society's expectations and norms related to services traditionally performed by the nonprofit sector. The authors, therefore, attempted to provide a clearer definition of social entrepreneurship, viewing it as a process that combines resources in new ways to stimulate social change and meet local needs.

Explaining how social entrepreneurship relate to social innovation, Austin et al. [39] asserted that it can be understood as a process of continuous realization of opportunities to pursue social innovations and adaptation of these innovations into social enterprises for further value creation in the society. In this context, social innovation is viewed by the Organisation for Economic Co-operation and Development (OECD) [40] as the key to social change and value creation, suggesting that the process (social innovation) should involve attributes and activities as key elements to create provisions for employment and participation. The OECD [41] definition links social innovation to local development and the formation of new relationships between local people and their environment; it clarifies that

“Social innovation refers to traditional innovation in terms of ‘value creation.’ It entails new strategies, concepts, ideas, and organizations that meet social needs of all kinds — from working conditions and education to community development and health — and that extend and strengthen civil society. Alternatively, it refers to innovations that have a social purpose — like microcredit and distant learning. Social innovation can take place within the government, within companies, or within the nonprofit sector between the three sectors. The different types of platforms need to facilitate such cross-sector collaborative social innovation. Its ultimate goal is not only to create economic value but also to enhance social institution. Therefore, NPO, civil society are to be involved, which are rather low key in field of traditional innovation as ‘actor’ in charge of leading innovation (p. 16).”

There are exemplary instances of social innovation by CBOs where social enterprises subsume local authorities as shareholders in their governance system. Yunus et al. [42] cited British and French “community interest companies/cooperatives” as examples. In Bangladesh, the “*nishorgo* network” and “integrated protected area comanagement” projects engaged with community organizations in forest conservation efforts on a benefit sharing basis are geared towards revenue generation [43,44]. The comanagement committees of those projects also operate several carbon sink programs with income provisions for the engaged community members. In all the cases, local authorities directly participate in projects that are likely to have a positive impact on local development in terms of social capital generation, sustainable employment creation, and provisions for services of general interest.

Social learning is increasingly becoming a normative goal in natural resource management and policy [45,46]. It occurs mostly through joint problem-solving and reflection, with the sharing of experiences and ideas [19]. Social learning can also be conceptualized as achieving concerted action in complex and uncertain situations [47]. Earlier literature defined social

learning as a process of iterative reflection that occurs when experiences and ideas are shared with others [48]. This study subscribes to the definition of Reed et al. [49], who view social learning as a process of social change in which people learn from each other in ways that can benefit wider socioecological systems. It pays particular attention to group-centered social learning, as this is increasingly seen as central to decision-making in environmental management. Pahl-Wostl and Hare [50] clarified that management is an ongoing learning and negotiation process; hence, management and learning are linked through communication, perspective sharing, and the development of adaptive group strategies for problem solving.

3. Methods and study area

The study employed a qualitative case study [51] and participatory research [52] approach to achieve the research objectives. It explored the social entrepreneurial context and perspectives relating to the operations of an NGO in Bangladesh, namely, the Center for Natural Resources Studies (CNRS), with extensive CBO-aided entrepreneurial programs. The CNRS has implemented a green entrepreneurship development program in two intervention sites in Bangladesh. This study was conducted at one of these sites located in the Moulvibazar district of the country. The CNRS has implemented green entrepreneurship development programs in five villages of Barlekha *upazila* (subdistrict) of the district. It also implemented several other programs focusing on sustainable environmental management, community-based fisheries, and wetlands biodiversity in the area. In all cases, this NGO made significant efforts to build and maintain partnerships with local CBOs.

The primary tools of investigation for this study were document reviews, key informant interviews, focus group discussions (FGDs), and multistakeholder workshops. A review of institutional and operation-related documents for both the CNRS and local CBOs enabled the study to analyze the entrepreneurial dynamics of the NGO and the social entrepreneurial characteristics of CBOs. In-depth interviews of key executives (president, secretary, and cashier) of CBOs revealed their abilities and entrepreneurial potential. Three separate FGDs were held with three CBOs. We also interviewed two senior NGO executives, two NGO field managers overseeing entrepreneurship programs, one developmental entrepreneurship expert, and one policymaker. In addition, a multistakeholder workshop was organized at the local *upazila* headquarters (Barlekha) involving representatives from the regional government, the NGO, leaders of CBOs and local government, and members of CBOs to evaluate their (CBOs) entrepreneurial roles and capacities.

The study area is a wetland ecological region known as *haor*, characterized by numerous swampy bowl-shaped natural depressions (**Figure 1**). A *haor* remains inundated for 6 to 7 months per year. The natural resource bases of *haor* consist of croplands, rivers, *beel* (large naturally depressed water bodies), canals, streams, riparian bushes and trees, reed lands, aquatic vegetation and swamp forests, open grazing areas (raised land locally known as *kanda*), and edges of roads and embankments. Apart from agricultural activities, the livelihoods of the local people are largely dependent on fishing from the surrounding water bodies and collection from other commons. Due to various natural and anthropogenic pressures, these

natural resource bases are rapidly being depleted. Since 2000, with NGO guidance, local CBOs emerged as critical players in the preservation and management of these resources.

During the period of investigation, there were six CBOs operative in the five villages where the CNRS ran programs. We selected three CBOs based on their multiple years of operation and diversity in approaches: (i) *Nischintapur-Shahapur Bahumukhi Samity Ltd.* (Nischintapur-Shahapur Multipurpose Cooperative Ltd.), (ii) *Nanua Mohila Samity* (Nanua Women Cooperative Ltd.), and (iii) *Shapla Samajvittik Bahumukhi Samity Ltd.* (Shapla Community-Based Multipurpose Cooperative Ltd.).

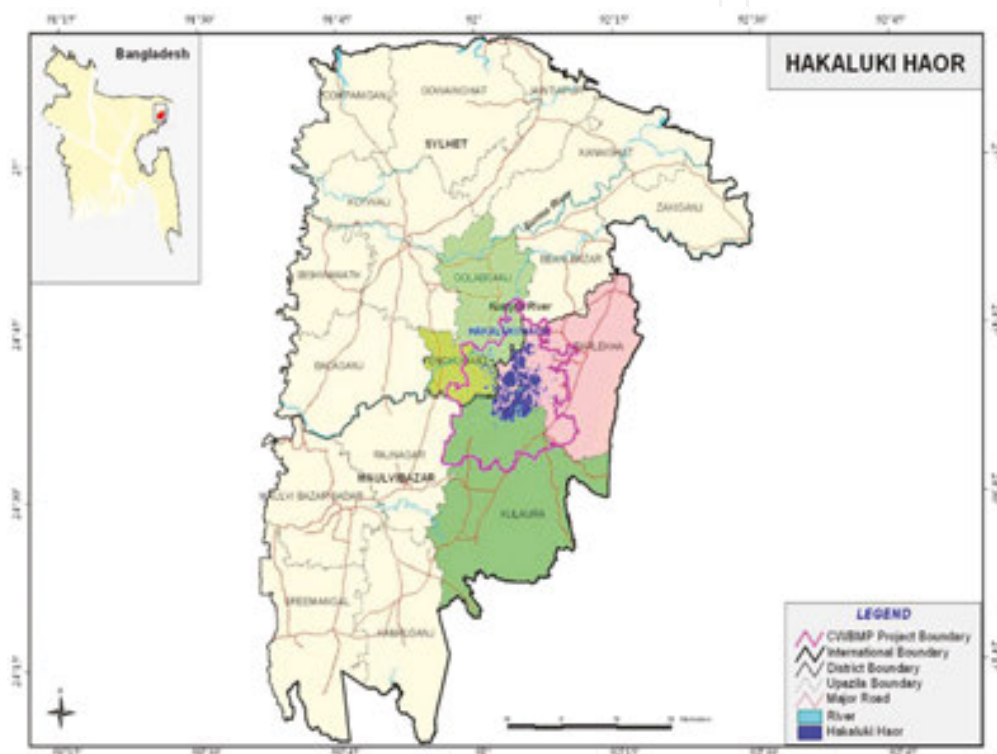


Figure 1. Map of the studied Hakaluki *haor* area in Barlekha *upazila*, Moulvibazar, Bangladesh [Source: Map drawn under Community-Based Wetlands Biodiversity Management Program (CWBMP) by the CNRS GIS unit, Dhaka].

4. Results: cases of social innovation by CBOs

The emergence of CBOs in the study area can be attributed to interventions by the local developmental agencies aimed at increasing the livelihood security of rural communities through participatory management of *haor* resources. These NGO-guided CBOs have been in operation since 2005. Based on the purpose, objectives, and nature of planned programs or activities as set down in the constitutions of the studied CBOs, we divided these mission components into two categories: (i) economic mission and (ii) learning mission (**Table 1**).

Economic mission	Learning (social) mission
• Improving livelihood and creating alternative income-generating opportunities for the socioeconomic well-being of the organization members (in general) • Promoting savings by the members and operating microcredit schemes for the sustenance of the organization; the primary purpose of microcredit operation is to provide loans to the members to reduce or eliminate their dependency on traditional moneylenders • Investing in the CBO fund for income generation and productive purposes • Selling, marketing, and distributing necessary goods and services at a fair price among CBO members • Ensuring and facilitating collection, supply, and use of agricultural inputs (e.g., seeds, fertilizers, and pesticides), modern equipment, and scientific techniques for farming and production • Promoting skills development for product processing, marketing, microindustry establishment, etc. • Marketing and storing member-produced goods to sidestep middlemen or intermediaries and ensure maximum market prices • Motivating and assisting members in undertaking agriculture, fishery, trading, handicrafts, or other agro-based microventures (individual or group operated) • Acquiring open-access or fallow land areas in the locality for collective farming on a shared-cropping or yearly-lease basis • Arranging and implementing vocational and skills development schemes for the benefit of members of the CBO as well as those of the community at large • Establishing business or commercial entities by purchasing, leasing, or renting land, buildings, factories, or other assets when necessary • Engaging with trading, export, and import-based businesses • Undertaking forestry, social forestry, and plantation-related schemes	• Ensuring solidarity, prosperity, and equality of the organization members as well as the larger community (in general) • Resolving conflicts among the organization members by acting as an arbitration body • Contributing to the development of local educational, health, religious, and commercial institutions (e.g., schools, colleges, hospitals, mosques, and markets) and communication infrastructure (roads, embankments, bridges, etc.). • Undertaking programs to eliminate illiteracy and provide educational aids to the children of CBO members • Providing leadership training to the members and promoting women's leadership roles • Establishing informal schooling facilities and other appropriate vocational institutions for the elderly • Promoting the advancement of female members through educational, vocational, skills development, and other social programs • Arranging sports, recreation, and amusement programs for members and their families • Raising awareness against tobacco, aids, cancer, illiteracy, and environmental degradation • Building organizational and office management capacities for the members through training • Helping the families of deceased members with organization funds • Ensuring appropriate division of labor and incomes through standard organizational procedures • Maintaining an information repository for improved resource management and networking

Table 1. Economic and social missions of CBOs.

The CBO constitutions stipulate that they may pursue any combination of the above activities as per operational necessity. They also set out rules and procedures regarding membership, share and capital acquisition, lending, purchases, contracts, recruitment, office maintenance, business venture operation, and cash flow management. Their registration with “joint stock companies” requires them to maintain standard decision-making and reporting procedures.

In the process of implementing intervention projects focusing on areas such as sustainable environmental management, community-based fishery management (CBFM), and wetlands biodiversity management, the studied NGO (i.e., the CNRS) undertook bold initiatives to build

partnerships with local CBOs. This initiative encompassed community knowledge and capacity-building measures, including raising awareness on the importance of local natural resources, the environment, and legal rights; training on livelihoods and alternative income generation skills; and facilitating networking and institutional linkage development efforts. The CNRS further involved CBOs in the decision-making process regarding project components related to local natural resource management issues. The partnerships thus advanced and lead to many innovative mechanisms. The initiatives contributed to social value creation and learning. We focused on three such initiatives.

4.1. Case 1: Swamp forest restoration through cooperative entrepreneurship

The studied communities in the wetland areas have a considerable degree of dependence on flooded or swamp forest resources, which include tree species, reeds, shrubs, and aquatic plants. These forest species are crucial to the *haor* ecosystem for four major reasons: (i) they provide natural resistance to rising waters and intense waves during monsoons and thus protect houses and homesteads from erosion, (ii) they are the primary source of fuel energy for household activities throughout the year, (iii) many are also used as thatching material for houses, and (iv) many local microentrepreneurs are dependent on them for handicrafts making (e.g., mats, cane furniture, baskets, and others).

Established in 2005, *Nishchintapore-Shahpur Bahumokhi Samobai Samity Ltd.* emerged as the local partner of the CNRS for implementing activities under a national program for sustainable environmental management in the study area (**Figure 2**). With organizational and technical guidance from the CNRS, this CBO identified that the rapid degradation of swamp forest resources in the area posed a major threat to local livelihoods and the ecosystem. In response, the CBO members created a common front to restore these degraded forests through plantation in common-property and open-access areas. The core mission of the scheme was to sustain the restoration initiative in the long term, simultaneously benefitting both the ecosystem and the livelihoods of the CBO members.

To carry out this initiative, the CBO received an endowment fund equivalent to USD 400 (BDT 30,000) from the partner NGO. With guidance and facilitation by the partner NGO, the CBO then set out the implementation, operation, revenue generation, and benefit sharing plans of the entrepreneurial venture, as described below.

The “implementation” activities included, among others, designing the plantation program and identifying potential lands for this purpose. Facilitated by the partner NGO, the CBO members conducted a participatory land use survey (PLUS), an extended community resource mapping method, to identify potential lands, such as *khas* (government-owned open-access areas), *kandha* (raised land areas inside the *haor* body), and *ijmali* (lands with gross ownership; i.e., with no exclusive title-holders). Knowledgeable elder members of the CBO were instrumental in identifying these land areas, which were then vetted by local land-offices based on their own maps.

Subsequently, the *Nischintapur-Shahpur* CBO acquired a total of 5 km² area in the locality to implement the plantation venture. The swamp forest species planted under the program were *Hizal* (*Barringtonia acutangula*), *Koroch* (*Pongamia pinnata*), and *Barun* (*Crataeva magna*).

The “operation” of the venture was primarily reliant on a project implementation committee (PIC) comprising seven CBO members. The PIC acted as the plantation subcommittee responsible for implementing and monitoring plantation activities and reporting on progress to all the CBO members. Discussions with the CBO executives combined with an examination of CBO-meeting resolutions and the partner NGO’s project reports revealed the following salient operational features of the plantation venture:

- The material inputs were mainly saplings, which were collected either from natural sources or from community-owned commercial nurseries.
- Male members of CBOs were appointed to guard the planted areas, whereas women irrigated the saplings during the dry months of the year, especially from February to April.
- Through plantation, the priority of the joint CBO-NGO mission was to restore the shrubs, grasses, and reeds, which make up the understory of the forest. Therefore, the CBO resolved to maintain a permanent reserved forest or conserved areas (also called sanctuaries), as they considered this measure crucial to the regeneration and succession of the flora and fauna of the ecosystem.
- With assistance from the NGO, the CBO developed a “resource harvesting code of conduct” following a participatory decision-making process. It was decided that the mature forest

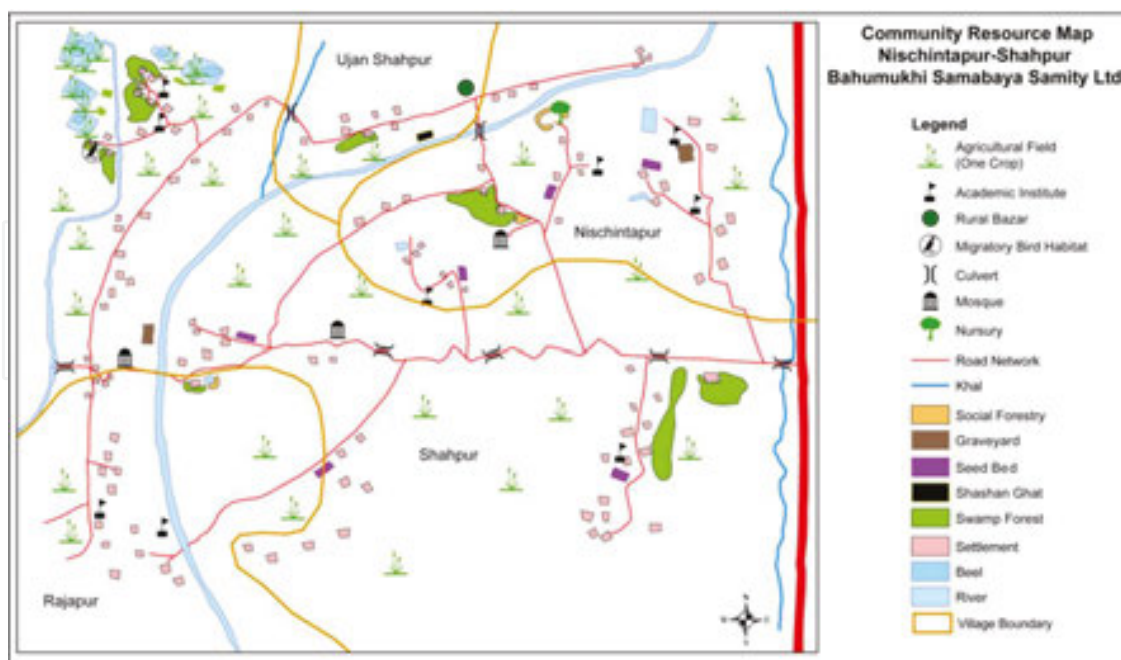


Figure 2. Resource map of *Nishchintapore-Shahpur* CBO.

would be divided into five equal blocks, of which four blocks would undergo a rotational harvesting and remaining block would be conserved as permanent sanctuary.

- The CBO would not sell a whole tree but instead trim it rotationally to yield fuel wood to sell locally. It would also sell the understory grasses, plants, and shrubs to the locals in a controlled and sustainable manner.

The “revenue generation” stream of the entrepreneurial venture followed its operational principles. Based on the operational procedure, the projected cash flow of the CBO involved several sources of income, namely, selling tree branches for fuel and selling permits for collecting grass, fuel wood, and fodder (**Table 2**).

Source of income	Harvesting principles	Amount/rate
Sale of tree branches as fuel wood	The trees in four of five forest blocks undergo harvesting in a yearly rotation—one block per year. The trees are trimmed only to yield branches and leaves for fuel wood	Based on the 2005–2006 projection, the CBO determined that fuel wood buyers would be charged BDT 400 (equivalent to ~USD 6) per tree
Chailla grass (<i>Hemarthria protensa</i>) collection permit	The CBO issues permits to local buyers interested in buying grass to halt wave action to protect homes from erosion. Permits only allow for half-day collection period to ensure sustainability of the resource base	The CBO set BDT 100 (USD 1.4) as the charge for a half-day grass collection permit
Half-day permit for fuel wood collection	Local people also collect fuel wood materials from the shrubs, grasses, and plants in CBO forested areas. To ensure sustainability, the CBO allocates a half-day quota only for each collector, and the number of collectors is controlled based on the available stock of wood	The CBO charges BDT 50 (USD 0.80) for a half-day fuel wood collection permit
Half-day permit for fodder collection	Fodder collection is in high demand among the locals, as cattle rearing is one of the major sources of livelihood. The CBO allocates a half-day quota only for each collector and also controls the number of collectors	The CBO charges BDT 50 (USD 0.80) for a half-day fodder collection permit

Table 2. Sources of cash inflow of Nishchintapore-Shahpur Bahumokhi Samobai Samity Ltd.

The “benefit sharing” mechanisms were also set down by the CBO members while planning this entrepreneurial venture. The general terms and conditions of benefit sharing are as follows:

- 60% of income from harvested or restored (**Figure 3**) swamp forest products would be distributed equally among all members of the CBO.
- 25% of the yearly turnover would be transferred to the CBO’s operational fund. The CBO would use this fund for the maintenance of the venture (maintenance costs were estimated to be <5% of the income) and overall community development.
- The remaining 15% would be distributed to land owners or *union parishad* (the lowest administrative tier) depending on the nature of land ownership.



Figure 3. A restored area of swamp forest by the *Nischintapur-Shahpur* CBO

4.2. Case 2: “Four cows and a half-acre” model—a group entrepreneurship with multiple social and ecological benefits

The *Nunua Mohila Samity* (Women Cooperative of Nanua) was formed in 2004 by female members of the Nanua village located at Hakaluki *haor* basin at Barlekha *upazila* (**Figure 2**). At the time of founding, 80% of the members were involved in household chores and 18% raised poultry in addition to their daily household activities. The CNRS facilitated the formation of this CBO to promote the engagement of women in wetland natural resource management. This move was unique, as it is typically difficult for women to join CBOs due to sociocultural pressures. The CNRS trained and helped them in developing the organizational action plan—a process known as participatory action plan development (PAPD). The CNRS provided capacity-building measures to this CBO, whose outcomes until 2007 included the following:

- The CBO gained the organizational knowledge and capacity necessary to run microfinance programs and undertake AIGAs. To oversee the day-to-day organizational activities and financial transactions, including banking, it formed a seven-member executive committee comprising a president, a vice president, a secretary, and four members.
- An endowment fund of USD 800 and a one-time revolving credit fund of USD 2000, arranged by the partner NGO, were established.
- Access to the credit facility led local women to establishing microenterprises such as plant nurseries, poultries, duckeries, goat rearing, beef fattening, fish-net crafting, mat making, and home-based grocery shops.
- Participatory NGO-CBO assessment practices evaluated the capacity of the members to pursue their proposed entrepreneurial ventures and then provided skills development training as required.

- Successful records of microcredit program operation by the CBO enabled it to receive further funds (revolving credit) in the form of operational loans from the Bangladesh Rural Development Board to expand their microcredit program.

As its partnership with CNRS evolved, in 2008, the CBO received further skills training, assurance of technical assistance, and aids for enhanced entrepreneurial capacity. The NGO also provided them with irrigation equipment (such as a CBO-owned submersible water pump) and veterinary facilities for the cows. The NGO was able to arrange these facilities for the CBO from a CIDA-funded development project (named BEGCB) that it implemented in the area with a goal of sustainable resource management and support to local livelihoods. Subsequently, a group of five members of the CBO jointly planned a composite cow rearing and vegetable production venture requiring a larger (than usual microcredit loan) capital investment. For this, the group received an “enterprise loan” of USD 2000 (**Table 3**).

This group entrepreneurship model was based on four milch cows (pregnant or lactating at the time of purchase), and about half an acre of cultivable land for organic vegetable production. The CBO established a 4×7 m cowshed with provision for cement flooring, a raised floor to facilitate drainage, and a corrugated tin roof, which can house eight cows. Adjacent to the shed, is a biodigester to produce biogas and organic fertilizer. The biodigester can process up to 60 kg cow dung per day to produces 3.0 m³ biogas. A composting pit is also built beside the shed.

This mini-dairy and organic agriculture scheme required a start-up capital in the amount of BDT 339,900 (USD 4200) mainly to buy the cows, lease land, and build the shed and biodigester facilities (**Table 3**.) The group also raised a working capital to buy fodder for the cows as well as seeds and other materials for vegetable cultivation. The female group members reported that they would also rely on the help by their male family members to run entrepreneurial functions such as grass collection and day-to-day nurturing of the cows, land preparation and production activities for vegetable fields, and harvesting and marketing of products.

Investment	Four cows, leased or owned lands, cow shed, biodigester, and compost facilities	Capital
	Fodder, treatment, seed, irrigation, and labor	Operating cost
Outputs	Calves, milk, manure, and organic vegetables	Products
	Biogas and firewood sticks for cooking	Energy
Outcomes	Employment and income, health and nutrition, education, and productivity	Social
	Zero waste, greening, GHG reduction, and reduction of pressure on forest covers	Ecological

Table 3. Nature of investment, outputs, and outcomes of the composite agroenterprise.

The group members and the CBO leaders revealed that the farm would produce:

- 40 to 60 kg of high-quality organic manure a day that would be used in their vegetable fields as fertilizer. Some of the group members also opted to make firewood sticks and compost to sell to locals.
- The biodigester would produce 3.0 m³ biogas/day for cooking and lighting.
- 12 liters of milk could be collected per day with all four cows producing (75–80% to be sold and the remainder distributed among member families for consumption).
- The group also expected four calves every 14–16 months, which they will raise for 2 or 3 years before bringing to market.

Biogas production reduces the use of conventional cooking firewood made from tree branches and manure. Two closely located households enjoy this biogas facility for cooking and lighting. It is estimated that approximately 5 tons of biomass are saved in a year as the families switch from conventional cooking energy sources to biogas. The female household members engaged in daily cooking reported that they will enjoy a better health, thanks to reduced exposure to smoke and ashes. The women are also free of the burden of collecting or making of fuel woods, which reduces their working hours by 40%. Uninterrupted lighting facilities allowed for extended study periods for the children, and other family members are able to finish more household chores and crafting jobs during the evenings.

Vegetable production will also add to the value of the project. The group members plan to produce organic winter and all-season vegetables both for family consumption and for sale in the market. They estimated a yearly cost reduction of 20% due to the resulting independence from regular vegetable purchase. It is also envisioned that much of their operating costs could be offset by vegetable sales. The enterprise also does not generate waste, as dung is recycled into fertilizer and compost. Methane emissions are also captured by the biodigester to produce biogas.

4.3. Case 3: Management of aquatic resource bases and afforestation

In assessing Case 3, we primarily observed the transformation of the *Shapla* Multipurpose Cooperative Ltd. (*Shapla* CBO) of Boro Maidan village at Talimpur *union*, Barlekha. Established in 2004, the *Shapla* CBO emerged as a local fishery and forestry resource management body with the guidance of the partner NGO (i.e., the CNRS). As an implementing agency of the intervention program of CBFM, the CNRS facilitated the formation of local bodies to aid in resource management. It mobilized the community resource user groups and provided technical and institutional support to form a CBO. The institutional support components within the scope of the CBFM project are as follows:

- Capacity building and skills training;
- Developing and implementing plans for managing fisheries in *beel* (perennial water body) habitats through the construction of fish sanctuaries, imposing gear bans, enforcing closed seasons, and carrying out habitat restoration;
- Signing of contracts and agreements with the resource (fisheries) management line agencies;

- Providing microcredit;
- Building community centers; and
- Linking CBOs through networking.

With an endowment fund of BDT 50,000 (USD 800) from CBFM, the *Shapla* CBO planned to embark on an entrepreneurial venture with the dual objectives of meeting resource management goals and supplementing local livelihoods. About half of the CBO members (46%) were fishermen, whereas the rest had diverse occupations primarily relating to agriculture. As part of their national policy intervention, the CBFM program tested the efficacy of local management of Hakaluki *haor* water bodies. These water bodies were government owned and leased out for a period varying from 1 to 3 years by the Ministry of Land. The *Shapla* CBO succeeded in leasing *Gaimara beel* for 3 years using both the endowment and member-raised funds. In addition, as 54% of the CBO members were nonfishers, *Shapla* also undertook a plantation program to raise lumber trees.

All 22 members of the CBO were involved in implementing the fisheries and plantation ventures. Initially, they established a resource map of their community (**Figure 4**); and then developed a shared understanding and a set of norms for operating the ventures. A five-member *beel* management committee, as well as a plantation subcommittee, was formed. These committees were responsible for liaising with the partner NGO and other line institutions with regard to the respective venture affairs. The CBO had to reach a tripartite agreement, the partner NGO (the CNRS) and Ministry of Fisheries and Livestock (MoFL) being the other parties responsible for its operation, management, and harvesting policies. The CBO's forestry project planted 4000 saplings on lands owned by the Local Government and Engineering Department (LGED), which was not a partner agency of the CBFM program.

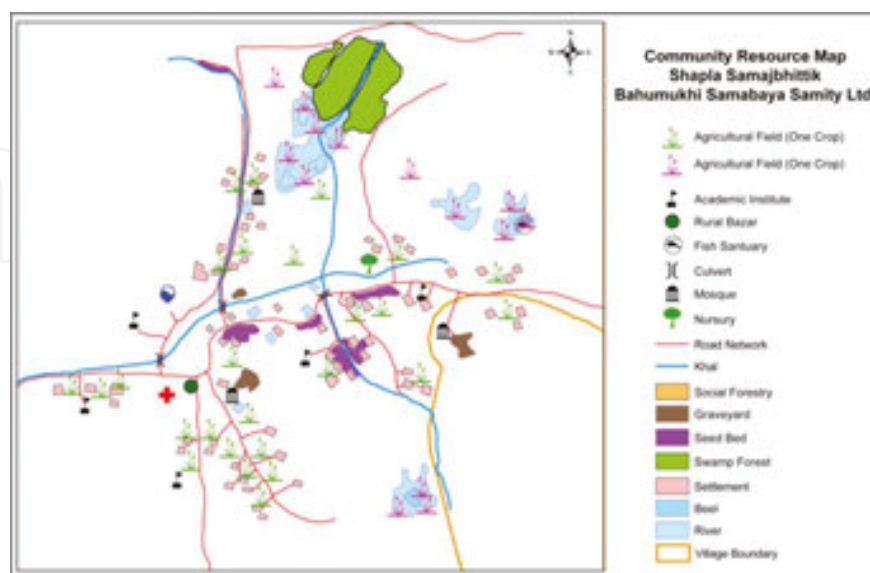


Figure 4. Resource map of the *Shapla* CBO

The CBO-operated fisheries and forestry ventures promoted conservation and greening in the locality. As per the agreed-upon operational policy (through the tripartite agreement), a portion of the *beel* was kept as a fish sanctuary (**Figure 5**) to ensure the conservation of brood fish; the brood fish were used for breeding purposes in the following year to maintain stocks. Although the lease entitled the CBO members to harvest fish from the *beel*, one of the conditions was to maintain a “closed season” harvesting ban during the early monsoon, which is the breeding season. The CBO members reported that the MoFL-imposed “closed season” usually spanned 3–4 weeks in the *haor* areas; this measure contributed significantly to the growth of fish stocks in the water bodies.

The benefits from fish harvesting were equally shared between CBO members. The CBO reported an average 40% gross profit on their investment in the fisheries venture. However, the plantation venture did not flourish as the CBO failed to establish ownership of the plants, as the government department owning the planted land area refused to cooperate despite the best efforts of the partner NGO to intervene. As a result, young trees were either cut down by poachers for fuel wood or were damaged by cattle. The CBO reports that they are now raising only approximately 300 trees of the original 4000, the return on which has not exceed the investment cost. The CBO estimates a 50% loss on investment in this venture.

The examination of the yearly fish harvest reveals that the total yield increased under CBO management. The conservation effort by the CBO also enhanced species diversity and richness in the water body. The CBO drained the *beel* only once (as per the lease term) during the 3-year leasing period; many other leaseholders breached this agreement, dewatering every year and negatively impacting to the diversity and growth of fish stocks. The CBO also reported the presence of fish species in their *beel*, which were thought to be extinct in the local ecosystem.



Figure 5. A fish sanctuary made with brush pile kata, and marked with red flags (indicating no fishing zone) within a *beel* by Shapla CBO.

5. Discussion: social entrepreneurships and learnings through NGO-CBO partnerships

CBOs working in concert with NGOs for natural resource management is a relatively new practice in the field of community-level development efforts. The findings of our study suggest that these CBOs typically emerge from local economic and social missions. Social missions concern the community or collective interests of the members, whereas the economic missions deal with the economic needs of the organization members and revenue generation for the organization's sustenance. There are embedded ecological missions within the economic and social ones, which have hardly been streamlined towards revenue generation by developmental mechanisms. It is the NGO-CBO partnership that leveraged those ecological missions of CBOs (e.g., swamp forest restoration, road-side plantation, conservation of fish habitat, organic cultivation, and others as evident from the cases).

The leveraged missions became goals, more specifically entrepreneurial goals, of CBOs that helped them generate revenue and thereby turned them into entrepreneurial entities. In all the studied cases, it was apparent that CBOs exhibited natural social entrepreneurship potential. With exploitation of that potential, the partner NGO helped to reinforce the capacities of CBOs for self-sufficiency. The NGO helped CBOs to access a range of services, such as endowment credit fund facilities for venture start-up, technical training on capacity building and skills development, innovation and knowledge transfer, and networking and cooperation, as indicated by Berkes [35] and Seixas and Berkes [36] regarding NGO-CBO partnership. All three initiatives sought answers to social problems by identifying and delivering new services and product to improve the quality of life at both individual and community levels—what the OECD [41] termed as welfare-oriented social value creation.

The degradation of swamp forests poses manifold threats to the lives and livelihoods of wetland communities. Case 1 (*Nishchintapur Shahpur* CBO) addressed this vital socioecological issue in the *haor* community. Usually, interventions by development programs for the restoration of such resources are time bound. More importantly, afforestation activities require long-term maintenance, which becomes uncertain upon project termination. By incorporating income generation as well as conservation mechanisms, the initiative has become a sustainable enterprise. The enterprise sustains itself financially through the sale of fuel wood, fodder, and grass and manages itself with appropriate operational and benefit sharing mechanisms. With this continuous care, swamp forests are thriving in the locality.

The diversified and innovative means of income generation by the group-run enterprise (Case 2) led the financial self-sufficiency of the community entrepreneurs and contributed to resource optimization in the society, which are the critical elements for community development [28]. The enterprise serves multiple social and ecological roles, including employment generation, creating income opportunities for women, offsetting greenhouse gases (GHG) and producing biogas as an alternative to fuel wood, and cultivation with manure to produce organic vegetables. It demonstrated how even four cows and a half-acre land can provide multiple benefits to the environment and society and enhance the health and livelihoods of the

entrepreneurs. This entrepreneurial model is crucial for responding to climate change and enhancing well-being in poor communities.

Social innovations by CBOs that integrate community development and entrepreneurial objectives can also fail in the face of unfavorable policy regimes and tenural intricacies of public institutions. The *Sahpla* CBO (Case 3) that ventured into *beel* leasing and plantation schemes was unsuccessful, as it failed to gain ownership of the planted trees. The CBO activities in managing the *beel* contributed to enhancing the aquatic resource base in the locality, as it introduced sustainable harvesting practices for fish resources. The tree plantation schemes, if sustained, could enrich the local biodiversity and help support the livelihoods of the CBO members. This case indicated that supportive public policies and institutional arrangements are crucial for social enterprise to succeed.

The aforesaid mixed results confirmed the assertion made by Berkes [19] that joint problem-solving and sharing of experiences and ideas through partnership help promote social learning. Building on the embedded social missions of CBOs, the observed partnerships helped grow and strengthen many social learning components. Community people learned from each other in ways that benefited wider socioecological systems [49]. In this study, we paid particular attention to group-centered social learning and found that community members are increasingly becoming capable of engaging with local natural resource management processes. It is also evident from the cases that a wide array of learning components are nurtured and significant learning is taking place out of the management process of local natural resources and the ecosystems. It validates the claim of Pahl-Wostl and Hare [50] that management and learning are linked through communication, perspective sharing, and the development of adaptive group strategies for problem solving. The study found the following social learning processes and outcomes are occurring from the NGO-CBO partnerships (Table 4).

Partnership outgrowth	Resultant process and practice	Social learnings and outcome
Institutionalization	Inspired and guided by NGOs, CBOs emerged as new institutions at the village level with socioeconomic missions	Grassroots institutional diversity and CBO as a platform for social learning
	Many of the members (~60%) gained formal institutional affiliation for the first time to deal with issues pertaining to their livelihoods and community well-being	Social inclusions and familiarity with social and ecological issues
	More than 65% of local women participated in meetings concerning local resource management and income generation for the first time	Women empowerment and promotion of gender viewpoints
Networking and linkages	The NGO facilitated the access of CBOs to government line agencies (e.g., fisheries, horticulture, veterinary medicine, agricultural extension, and others)	Resource management capacity enhancement through knowledge and information from experts and professionals
	The NGO also helped CBOs networking with organizations at horizontal and vertical levels deal with local developmental issues	Knowledge sharing, view exchange, and increased awareness of local development
Organizational imperatives	Being a registered multipurpose cooperative, CBOs maintain yearly reporting procedures	Accountability and organizational knowledge for the CBO members
	CBOs follow organizational by-laws and maintain records of meetings and resolutions	Continuous interactions and feedbacks and learning of organizational norms and practices

Partnership outgrowth	Resultant process and practice	Social learnings and outcome
Organizational venturing	CBOs planned and embarked on entrepreneurial ventures with the guidance and assistance of the NGO CBO members gained business management skills through training and practice	Collective deliberation leading to social entrepreneurship to address social problems Venture operation and IGA skills; planning, organizing controlling, and leading skills and knowledge
Microcredit program	With endowment and revolving funds, CBOs run microcredit programs Transactions, banking, and saving operations were accomplished successfully	Institutional lending and borrowing knowledge and skills Efficiency in handling financial affairs
Group operation	Group entrepreneurship, PICs, and plantation subcommittees worked cohesively Division of labor, benefit sharing, and learning transmission took place among CBOs and its members	Team dynamics; group cohesiveness Participation, trust building, and transformative learning

Table 4. NGO-CBO partnership outgrowths and social learning components.

6. Conclusions

NGO-partnered CBOs have the potential to embark on entrepreneurial ventures that simultaneously generate income and address socioecological issues. With initial guidance and supports from NGOs, CBOs can enhance their abilities to take action to improve local natural resource bases—especially in areas of forestry, fisheries, and aggroresources. Streamlining the CBO operations towards income generation for long-term sustainability was the key to turn these organizations into social enterprises, meeting social needs and adding value to the society.

NGO-CBO partnerships bring about social innovation by diversifying the institutional goals of CBOs and building their capacities to pursue unique institutional goals in new and sustainable ways. The process also enables the NGO to pursue its own institutional mandate of adding value to society. In the past, NGOs typically delegated certain developmental responsibilities in shared roles to partnering CBOs within a project framework, therefore employing CBOs in a catalytic role for implementing development agendas at the local level. The transformation of CBOs into social enterprises has turned them into direct change-makers in the society rather than merely NGO operation catalyzers.

Social learning happens to be the most important spin-off of the NGO-CBO partnership process. The partnership generates a wide array of processes and components that enable the community members to learn in numerous ways—from actions, interactions, and examples. The social innovation school argues that social entrepreneurship creates new ways of responding to social problems. We extend this claim by arguing that NGO-CBO partnership-based social enterprises not only innovates to respond to social problems but also creates a platform for social learning. These social enterprises need institutional and policy supports to thrive, as they can play critical roles in ecosystems restoration and local natural resource management, especially in the developing countries.

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Author details

A.K.M. Shahidullah* and C. Emdad Haque

*Address all correspondence to: umshahia@mymanitoba.ca

Natural Resources Institute, University of Manitoba, Winnipeg, Canada

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