



Challenges to building social capital through planned adaptation: Evidence from rural communities in Bangladesh

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ABSTRACT

Social capital facilitates adaptation to climate change. Planned community-based adaptation (CBA) therefore – often implemented by non-governmental organisations – seeks to engender social capital to strengthen the adaptive capacity of vulnerable communities in the Global South. CBA interventions typically seek to build social capital through the formation of community-based organisations, often led by the most vulnerable groups such as poor women, with the view that these groups will sustain and make efforts to strengthen community capacity to adapt to climate change. This paper presents the results of a research project that sought to understand the challenges of building social capital through group-based CBA interventions in the rural coastal communities of Bangladesh. Drawing on the accounts of four female-led community organisations and their respective communities, we argue that strengthening social capital was obstructed by embedded sociocultural norms and by the assumptions made by external organisations about how to create social capital. This study concludes that CBA needs to frame gender from an intersectional point of view, rather than a simplistic ‘male-versus-female dichotomy’ to build community capacities through female-led collectives. It thus contributes to the theoretical and empirical literature on social capital, gender and community adaptation.

1. Introduction

Planned adaptation is one fundamental policy response to the impacts of climate change. Given the limitations of top-down adaptation approaches, planned community-based adaptation (CBA) has recently received widespread attention particularly in developing countries including Bangladesh (Ayers and Forsyth, 2009; McNamara et al., 2020; Regmi et al., 2016). Considering Bangladesh is one the most vulnerable countries to climate change that has adversely affected the life and livelihoods of local communities (Roy et al., 2016), non-governmental organisations (NGOs) with the assistance of bilateral and multilateral climate finance plan and implement ‘community-based’ climate change adaptation interventions to the build adaptive capacity of local people.

Community-based planned adaptation to climate change is ‘based on the premise that local communities have the skills, experience, local knowledge and networks to undertake locally appropriate activities that increase resilience and reduce vulnerability to a range of factors including climate change’ (Dodman and Mitlin, 2013, 640–641). It

engages the poorer and most vulnerable people in a way such that they can proactively act to enhance their adaptive capacity to climate change (Forsyth, 2013). Thus CBA is a participatory, community-led and empowerment-focused approach that enables local people to change social norms that underpin their vulnerability (Reid and Schipper, 2014; Ensor et al., 2018; Patnaik, 2021).

CBA approaches conceptualise adaptation to climate change as a social process (Reid and Schipper, 2014), and assume that it is difficult to increase adaptive capacity for communities by external organisations unless communities do it by themselves (Ayers and Haq, 2013). CBA situates vulnerable people as agents of adaptation rather than as passive recipients of project resources (Ayers and Haq, 2013). This approach stresses the importance of strengthening social networks between various local actors and the empowerment of the most vulnerable sections of communities so that they become able to manage their future risks collectively. CBA in practice, therefore, attempts to create social capital within communities as a conduit to building adaptive capacity to climate change. In so doing, it motivates local communities to organise

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themselves into collectives – often called community-based organisations (CBOs). NGO-initiated CBA initiatives in Bangladesh are delivered via CBOs, which often comprise the most vulnerable section of communities, especially ‘poor women’. Such adaptation interventions consider that women are more vulnerable to climate change impacts because of their disadvantaged position in a given socio-cultural contexts that impede their access to adaptation resources (Sultana, 2014; Jerneck, 2018; Jordan, 2019). Given the gendered vulnerability and weakness of local government agencies to reach the marginalised segments of local communities, NGO-initiated adaptation interventions tend to prefer women as key participants. CBA planners anticipate that female-led CBOs will sustain their efforts beyond the project period by virtue of social capital and will support communities to strengthen adaptive capacity to climate change.

Although external organisations only play a facilitative role in CBA interventions, they need to engage with local communities for a given time. Research shows that local communities may be sceptical and are likely to distrust external actors because of their previous encounters with top-down development, exploitation and marginalisation (Kirkby et al., 2018). In order to overcome these challenges, researchers suggest the necessity of building social capital, not only within communities, but also between the community and external organisations (Adger, 2003; Aldrich et al., 2016). Meaningful participation of local actors in CBA projects tend to enhance social capital (Hagedoorn et al., 2019). Development of social capital in CBA initiatives is also advocated because it may enhance the participation of disadvantaged groups such as women in climate actions (Patnaik, 2021). Strengthening social capital is therefore considered one of the underlying objectives of planned adaptation at community scale (Soeters, 2016; Mishra, 2018). However, there is little empirical work that provides evidence or analysis of the creation of social capital through NGO-initiated group-based CBA interventions. This article seeks to fill this gap via an examination of the challenges female-led CBOs faced when trying to build social capital for strengthening adaptive capacity in rural coastal communities of Bangladesh. We draw on theories of social capital and gender to analyse what factors and conditions constrain rural women in building social capital to adapt to climate change.

The paper relies on qualitative data obtained through in-depth case studies of four female-led CBOs and their respective communities in the southeast coast of Bangladesh. These CBOs were formed by the support of a multi-donor funded adaptation project, *Resilience through Economic Empowerment and Community Adaptation, Leadership and Learning* (RECALL), implemented by NGOs. Findings highlight that women's efforts to build and sustain social capital through female-led CBOs were hindered by a set of socio-cultural factors such as gender, class and kinship, as well as assumptions made by the project planners and implementers. The paper thus provides a nuanced understanding of the multifaceted relationships between social capital, gender and community adaptation to climate change.

2. Theorising the linkage between social capital, gender and adaptive capacity

Social scientists are divided into two major camps in the conceptualisation of social capital. One group describes social capital as an attribute of individuals' private goods, and research from this perspective focuses on how individuals invest and use resources embedded in social relations in order to gain individual benefit (Bourdieu, 1986; Burt, 1997; Lin, 2001). The other, comparatively larger group of scholars, views social capital as a collective asset held by society (Coleman, 1988; Putnam, 2000). Coleman (1988), a founding theorist, conceives social capital as the social-structural resources available to an actor for action. He views social capital, unlike physical and human capital, as less tangible, and argues that it exists in the structure of relations between actors. For Putnam (2000, 19), social capital represents “connections among individuals' social networks and the norms of reciprocity and

trustworthiness that arise from them”. Considering social capital as a property of individuals, Bourdieu (1986) understands social capital as connections attached with social position and status. Despite these divergences in conceptualisation, an emerging consensus can be observed in the literature around the definition of social capital as the norms and networks that facilitate people towards acting collectively to fulfil mutually agreed goals (Portes and Sensenbrenner, 1993; Woolcock, 2001). We adhere to this conceptualisation for the present study.

Several typologies of social capital are found in the literature. Uphoff (2000) distinguishes between the cognitive and structural dimensions of social capital. Cognitive social capital is derived from a mental process that includes norms, values, attitudes and beliefs, while the structural aspect describes rules, networks and institutions that link together individuals and groups for collective action. Another distinction has often been made between the different forms of social capital: bonding, bridging and linking. Bonding social capital refers to relationships among similar individuals (e.g., homophilous interactions between close friends or kin), while bridging social capital consists of relationships among people who are dissimilar (e.g., heterophilous connection with people from different socio-economic backgrounds) (Putnam, 2000). Linking social capital, on the other hand, refers to the extra-community linkages with individuals and the institutions which have relative power over them (Woolcock, 2001). This is the weakest form of tie (Granovetter, 1973), but it brings the most valuable resources to individuals and communities for ‘getting ahead’. This distinction has important implications in our understanding of the creation of social capital within local communities through external adaptation interventions.

Social capital scholars have long debated how to enhance social capital. Some researchers argue that social capital is generally formed over time and is accrued through tradition or shared historical experience (Ostrom and Ahn, 2009; Putnam, 2000). Development scholars, on the other hand, strongly support the idea that social capital can be developed through external interventions (Fukuyama, 2001). For instance, civil society organisations, particularly NGOs, are considered to be an important catalyst for engendering social capital because they engage local communities in their activities (Islam, 2015; Petzold and Ratter, 2015). Some scholars, however, call into question the role of NGOs in the development of social capital (Buckland, 1998; Hassan and Islam, 2019; Jordan, 2015). Buckland (1998), for instance, found that NGOs tend to undermine indigenous social capital through their long-term presence in communities and implementation of their own ideologies.

Creation of social capital through external interventions is challenging because it is distributed unequally across different social categories such as gender, class and status. Füzér et al. (2020) showed inequalities in social capital exist according to class position: advantaged classes are endowed with higher levels of bridging and linking social capital, while lower classes hold more bonding social capital.

Gender is another key determinant of social capital inequality. Gender refers to the socially constructed relations between men and women in a given context, and therefore there is a significant difference in the social networks between males and females (Westermann et al., 2005; Ganapati and Luchi, 2012). Women, for instance, rely more on informal networks such as kinship and friendship than do men, who tend to depend on fewer kin and more on formal networks (Agarwal, 2000; Westermann et al., 2005). Moreover, women are likely to exhibit more cooperative behaviour than men due to their having greater interdependency and altruistic values (Alston, 2013). As such, social capital is *gendered*: men and women possess different forms of social capital. In group-based CBA interventions, therefore, gender composition tends to influence the performance and sustainability of the CBOs. However, gender is not the only factor; other social markers such as age, income and wealth influence the decision to join groups and work as a collective to adapt to climate change (Carr and Thompson, 2014; Djoudi et al., 2016).

A growing number of studies therefore suggest that, to understand

this complexity we need an intersectional perspective, which recognises that responses to climate change take place through the interaction between gender, class and other social categories within a broader socio-cultural and economic relations (Kaijser and Kronsell, 2014; Sultana, 2014; Djoudi et al., 2016; Thompson-Hall et al., 2016). Thus, intersectionality offers critical insights into how to understand the attributes of societal structure that enable and constrain the creation of social capital for strengthening adaptive capacity to climate change.

We, therefore, have used an intersectional lens to gain nuance understandings of how local power dynamics and social identities shape adaptive capacity, which is understood as the ability to act collectively (Adger, 2003; Walker et al., 2019). More specifically, intersectional approaches enable to explore the socio-cultural challenges faced by female-led CBOs for enhancing community capacities via the creation of social capital.

3. Case description and methodology

3.1. Case study overview

This study was conducted in Sandwip, an island located in the southeast coast of Bangladesh. Sandwip was one of the 12 sites where the REE-CALL project was implemented by Oxfam partnering with a local NGO – Society for Development Initiatives (SDI). The project was implemented between October 2010 to June 2017 in 13 wards¹ of four unions of the Island, namely Rahmatpur, Mosapur, Harishpur and Kalapania. The project was channelled through the formation of 36 CBOs. It formed two or three CBOs in each ward for the convenience of facilitating project activities with the close collaboration of local people. We examined four CBOs located in two adjacent wards of Musapur Union (Fig. 1). These groups were chosen because they live close to the fragile embankments damaged by cyclone and tidal surges and had experienced displacement several times due to river erosion. The composition and functions of CBOs were similar to all other groups formed by the project.

The broad aim of the REE-CALL project was to build the adaptive capacity of communities in addressing risks associated with climate change through the leadership of its most vulnerable section, that is, poor women. The project design was based on the view that gender-based vulnerability had resulted from economic and sociocultural context of rural communities in Bangladesh. Women in rural context, for instance, possess less economic resources, enjoy less power in intra-household decision-making, and have little participation in community sphere that influence their adaptive capacity (Ferdous and Mallick, 2019). The REE-CALL project sought to strengthen the capacity of 'poor women' and to help them bring transformational change into their own lives, as well as in the local institutions to combat the general vulnerability of other community members. The project arranged a range of activities including training for raising awareness about climate change and disasters, capacity building training and networking sessions with local leaders. The ultimate objective was to build CBOs into self-reliant community organisations through strengthening their social capital. They in turn would continue to strengthen communities' capacity to deal with climate-related risks as the project phases out.

Since its inception, female-led CBOs were therefore the centre of all activities within this project. Through the active participation of the group members, the project assessed vulnerability of the communities and developed a plan for each community to address underlying causes of vulnerability. The CBOs were also responsible for the selection of beneficiaries, who were given training and in-kind or monetary support.

The structure of the CBOs was shaped by the project planners.

¹ A ward is composed of one or more villages, while a union is composed of nine wards. A union is the smallest administrative and local government unit in rural governance structure in Bangladesh.

Community members, in other words, had no influence on its composition and formulation process. A CBO consisted of one adult, preferably a woman, from each household of a specific area irrespective of their social position and economic condition. The representatives of each household from a specific geographic area were considered as general members of a CBO. In each organisation, an executive committee was formed to perform the roles and responsibilities of the group as stated in its by-laws. The executive committee had been elected democratically through a 'voice vote' each year by the general members of CBO in an annual general meeting.

The executive committees of CBOs consisted of 17 members from marginalised groups with five leadership positions, namely, president, vice-president, secretary, treasurer and subject matter secretary. The first four key leadership positions were reserved for underprivileged women and almost all other members of executive committee were also women. Thus, the CBO turned into a female-led collective. In order to be a CBO leader, a woman had to meet certain criteria: come from a disadvantaged background, be articulate and motivated to participate in project activities. The leaders also needed some experience of and capacity to participate in diverse *samiti* (groups) and mobilise other women within the communities. According to the by-laws of a CBO, the president and secretary played the key role for a smooth continuation of the group. The president was responsible for overseeing all activities of the group and for maintaining unity among members. The president was also accountable for presiding over the monthly meetings of a CBO with support from the secretary, and to provide future direction for taking the group forward, while the secretary was responsible for arranging annual general and monthly meetings of a CBO and writing meeting minutes.

During the project period, the executive committee met once a month to discharge its duties, including dissemination of information regarding the CBO activities, selection of beneficiaries for input support, addressing local social problems and communicating with local government institutions and NGOs. It was expected that these activities would enable CBOs to create social capital that would eventually help the group sustain itself beyond the project period. It was also assumed that female-led groups would be able to build relationships with other intra-community, local government institutions and NGOs that influence their capacity to deal with diverse risks.

The organisation of local communities into groups like CBO is not new to the communities in Sandwip. Women in particular have historically been involved in many diverse groups (e.g., microcredit and saving groups) initiated by NGOs and government agencies. These groups typically survive only during the life cycle of a project or program. However, like other rural communities, the social system of Sandwip is traditional, hierarchical and patriarchal, which means men dominate women and elites exert power over the masses. Gendered norms continue to restrict women's mobility and participation in activities beyond their households that undermine their capacities to adapt to climate change.

In Sandwip, the communities are densely populated and have a huge number of poor and extremely poor households primarily due to shoreline erosion and tropical cyclone and storm surges. Intensity and frequency of these climatic events have increased, and so are the adverse impacts on the life and livelihoods of the island communities (Roy et al., 2016). Yet, such effects are disproportionate. Families who are dependent on fishing and on-farm activities are the most vulnerable to the climatic stresses. Women in these families are considered the most vulnerable due to the patriarchal social norms that restrict women to involve in direct earning activities and mobility (Sultana, 2014; Jordan, 2019). Yet, men allowed their wives to participate in CBO activities primarily due to the possibility of accessing project resources.

Communities in Sandwip largely rely on kinship and other traditional networks to address climatic stresses on their lives and livelihoods. The structure of social networks in Sandwip is constructed of a few informal leaders and elected public officials and NGO-wallas (workers). While elected representatives of local government serve as

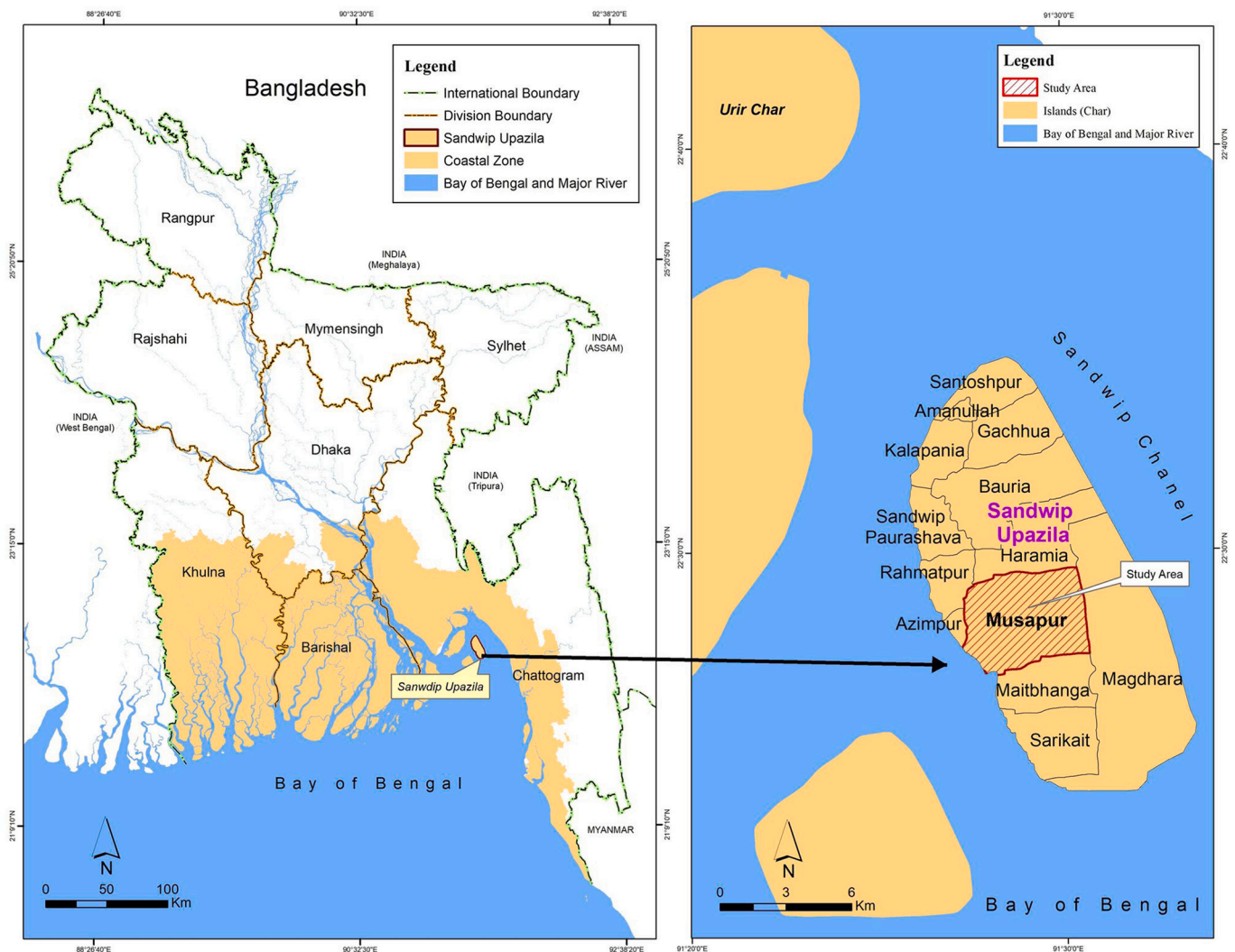


Fig. 1. Locations of study area in the southeastern coast of Bangladesh.

mobilisers, *samaj* (social) leaders and NGO workers serve as informal brokers. Against this backdrop, the REE-CALL project sought to create a new social network by organising ‘poor women’ to be a catalyst for enhancing adaptive capacity to risks associated with climate change.

3.2. Research methods

The research undertaken for this study was qualitative, and used a case study approach because this allowed us to examine our research objectives within identified contexts (Yin, 2018). We collected in-depth and detailed information from four CBOs and respective communities to understand how social capital was built through CBA interventions. We used multiple qualitative methods such as semi-structured interviews, group discussions and observations through six-month-long fieldwork starting in January 2017. The semi-structured interviews were our principal source for collecting data. We conducted 46 interviews with executive members of four studied CBOs, and interviewed all key leaders of the groups. Of the interviewees, only five were male; 41 were female. We also conducted nine interviews with informal and formal local leaders. We stopped interviewing after reaching the point of data saturation. Interviews with CBO members were conducted after establishing rapport with prospective interviewees through frequent visits and participation in group activities.

Group discussion was another vital method used for gathering collective views in relation to the strengthening of the CBOs and their

relationships with intra-community and external organisations. A total of four group discussions was conducted with four studied CBOs, while two group discussions were carried out with ordinary male members of studied communities. The average size of the groups was seven. Group discussions with CBO members were held at the regular meeting place (the house of a leader) of the CBOs, and discussions with male group were conducted in a local tea stall. Data also have been collected through observation of diverse activities of the project, as well as the usual activities of everyday life of communities. Project observations included attendance at CBO meetings at the community level, awareness-raising meetings at the Union *Parishad* offices, inter-CBO exchange visits and project monitoring activities. This enabled an in-depth understanding about the nature of intra-group relationships and the external networks of the CBOs. Community-level observation occurred by spending time at public spaces such as the local bazaar, grocery shops and tea stalls, which enabled us to understand the relationships between men and women, elites and masses, and the usual livelihood activities. In addition to this, a document analysis was carried out to understand the aims, objectives, process and outcomes that the project involved.

Interviews and group discussions were conducted in Bangla, while observation notes were kept in English. Most interviews and group discussions were audio-recorded and later transcribed verbatim and translated into English. Sufficient care has been taken during translation so that contextual meanings and metaphors remain intact. We used

thematic analysis for identifying, analysing and reporting themes within the data set. Thematic analysis enabled us to grasp the perspectives of different research participants and to reveal important insights (Braun and Clarke, 2006). We used NVivo software to conduct the thematic analysis. The data are presented in the form of anonymised quotes that provide rich evidence to develop our arguments on the complex relationships between social capital, gender and planned adaptation at local scale.

4. Results

4.1. Female leadership did not assist the CBOs to become cohesive networks

The ability of a group to act collectively depends primarily on the strength of bonding social capital among its members. In the REE-CALL project, the female-led CBOs were formed to enhance women's ability to develop trustworthy relationships and cooperation within these extra-familial networks. Each group was expected to be a formal and dense cohesive network in which members would come up with common norms, employ sanctions and promote greater cooperation rather than competition. When CBO members were asked to make comments about the status of relationships within the groups, the members who participated in group discussions said that intra-group ties had tightened. One member of a group stated:

Relationships with each other have become more cordial. If I get any news [from project staff], I inform other members, and everyone does the same in our group. (Group discussion, #CBO4).

In all four group discussions with CBO leaders and members, the participants did not express any negatives about their groups. However, in individual interviews with the same participants, it was revealed that these groups were not a cohesive network. A common feature among the group members was that they were poor and female, but being in the same class and gender had not contributed to enhancing unity within the groups. Instead, it was observed that kinship dominated the intra-group relationships. When CBOs were formed, leaders tried to include women who were their relatives and peers instead of those who showed an active interest in becoming a member. This tendency continued when the groups needed to recruit new members in place of inactive members. As one member pointed out:

When the samiti [CBO] was formed, the leaders included all their relatives such as maternal and paternal cousin-sisters and sisters-in-law. The president is my sister-in-law, and so I got the opportunity to join. (Participant 1, #CBO4).

Analysis indicates that the leaders and members of all four CBOs were divided into at least two factions, primarily due to the continuous efforts of a few leaders to strengthen their support base through the inclusion of kin and peers for controlling group decisions. Power within CBOs became concentrated in the hands of a few leaders, and the other group members were compelled to follow those influential leaders. Interviewees also reported that there was a severe dearth of respect, appreciation and trust between the group members. As one executive member of a CBO commented:

Nobody gives value to no one. People have become members to get value and respect. I along with many women obey her [president of a CBO], but others do not obey her. (Participant 5, #CBO3).

The level of trust and cooperation within the CBOs was low for a number of reasons. First, the leaders focused on realising their personal interests rather than collective ones. For instance, the female leaders were more concerned to gain financial or in-kind benefits than strengthening intra-group unity and capacity throughout the project period. As a consequence, members lost their motivation to participate

in group activities, on the one hand, and the leaders lost their authority over the groups, on the other. Furthermore, female-led CBOs failed to develop a shared sense of identity and common purpose through the process of performed activities. Interviewees reported that CBOs had a common vision, that is, building adaptive capacity to climate change for respective communities through engendering social capital; however, this was only on 'paper', as only a few leaders internalised it. Women did not feel this vision was their own, but rather treated it as 'goal of the REE-CALL project' that was impossible to achieve. They therefore were not committed to pursuing the vision, which obstructed the establishment of a common identity based on the creation of any sustained shared norms – an essential attribute for any organisation. Although some women felt the necessity of common norms to create cohesion, they had no idea how to create a common understanding within the groups. As expressed by one interviewee,

Everybody has a different opinion. It is a huge challenge to continue the CBO. If they know what I am saying now, they will come after me. We have to have the same mentality if we want to do something for us. (Participant 3, #CBO4).

Such a lack of shared norms has been observed in all studied CBOs, which impinged on the norms of reciprocity and harmony within the CBOs. Lack of common interests also led intra-group conflicts that obstructed the functions of the groups in a coordinated way.

These female-led groups, however, were active during the project mainly due to continuous encouragement and support from project staff. As reported in the group discussions, the women were well-informed that they would not receive cash or in-kind support from the project unless they sustained their group. The women repeatedly noted that they tried to work together as long as incentives from projects were available. From the analysis presented here, it is evident that formation of CBOs along a particular gender line did not foster shared norms, reciprocity and collaboration. The female-led CBOs, in other words, failed to create a strong intra-group bonding social capital, which is an essential condition for sustaining the groups beyond the project period. A lack of 'strong' ties within the groups weakened their capacity to build community capacities for climate change.

4.2. Social norms obstructed CBOs to connect with disparate segments of community

One of the major objectives of female-led CBOs was to generate a greater sense of community spirit through the enhancement of intra-community relations. The project assumed that women would work as brokers to connect disparate community groups, which would result in building new norms of trust and reciprocity in order to build the adaptive capacity of the whole community. Group discussions with CBOs reveal that such an idea of generating social capital for enhancing capacity of rural communities was not originated from the communities; rather it was imposed on the communities by agencies involved in project planning and implementation.

In rural societies of Bangladesh, male-dominated traditional institutions (i.e., *samaj*), along with a weak formal elected body (Union *Parishad*), govern the local polity. Results indicate that, although the *samaj* leaders exploit the rural poor in various ways, they contribute to creating common facilities such as schools, mosques and rural roads, and thereby they uphold the communitarian spirit for the common good. In the studied communities, the 'organic' social organisations (e.g., youth clubs, fishers' cooperatives) were almost non-existent. However, there were numerous micro-credit groups, formed by NGOs, in which poor women were solely involved. It was observed that the relationships within these groups were more business-like, and had limited linkages with the local informal and formal institutions. Unlike these groups, the REE-CALL project established the female-led CBOs with the assumption that each of these groups would connect the whole community through

enhancing bridging social capital in order to mobilise collective action for building adaptive capacity for climate change. Although the project staff motivated women leaders to establish linkages with different segments of their community, the latter were not interested in doing this. Instead, as our analysis shows, the establishment of female-led CBOs deepened social divides within the communities.

CBOs were formed with marginalised women where the local elites had no role in the group activities. The leaders of the group tended to avoid interaction with the community leaders (almost all of them are male) in relation to their groups, fearing they could influence the group decisions. As expressed by one CBO leader,

Some political [male] leaders tried to influence on this CBO. Why should we allow them to lead the CBO activities? We have brought the CBO here and so we will decide to whom we should give support. We did so. (Participant 1, #CBO2).

The *samaj* leaders said that the female leaders of CBOs never approached them to discuss issues concerning their group, and so they had little knowledge about the aims and objectives of the group. When the community leaders were asked to express their view about the CBO, they indicated that leaders of the groups could not be trusted and were incapable of fostering common good, and that had led to the erosion of community cohesion. They were of the opinion that trusting relationships and norms of reciprocity declined at the community level because project-related decision-making power was given to 'illiterate' women. One community leader commented:

Samaj will not accept their [CBO leaders'] opinions. They do not have any educational qualifications or family status. We cannot hope for anything from those women who are involved in kharap kaj [acts that are not socially accepted] and interfere with other's personal life. They quarrel over little things; they do not have a cooperative mentality, patience and honesty, and so how could they lead others? (Community Leader, #1).

This statement clearly reflects that local community leaders foster some misconceptions about the group. These male community leaders held such a view based on their traditional gender norms and class position that do not allow 'poor women' to take any leadership role within communities. The weak relationships negatively influenced the legitimacy of female-led CBOs, that is, they had a lack of acceptance from their own communities.

Female-led CBOs also could not engage other sections of their respective community. We found that, despite female leaders themselves having a marginalised background, they tended to exclude other vulnerable groups who were not members of the CBOs. The leaders were very protective of the inclusion of these women as new members. It was observed that the leadership of the groups did not change much, but general members kept changing because many of them became inactive. The inclusion of new members was primarily dependent on their relationship with the core female leaders such as president, secretary and treasurer. As such, many poor women were left out, particularly those who had no relations with the key leaders of CBOs. As pointed out by one CBO leader,

Outsiders did not like our samiti [CBO]. But when they saw that we got something by attending the meetings, many women wanted to join in CBO. But they could not join as there was no opportunity for new members. All the positions had been filled already. (Participant 7, #CBO2).

Despite the female-led CBOs not developing into a cohesive network, they did exclude non-participants. Such an exclusion made many men and women of the community angry, and some of them openly criticised the CBO leaders. Conflicts between the participants and non-participants led to a severe erosion of prevailing community social capital. Indicating to a president of one CBO, one female interviewee said:

Some people who are not even poor got involved in the samiti [CBO], while deserving people like me did not get any opportunities. A leader of the samiti deceived me...She is a cunning woman. [That is why] I stopped taking to her. (Participant 6, #CBO3).

In short, the female-led CBOs were formed to change the gender stereotype by evoking a sense of harmony and solidarity within their respective communities. Prevailing gender norms and the actual social position of female leaders, however, impeded the groups and restrained the building of social capital within their communities. These groups therefore were neither successful in connecting different 'horizontal' actors, nor in building strategic alliances with power holders and other vulnerable community members within their communities. The female-led CBOs therefore had not fostered an organisation that could connect disparate community groups. Ultimately this restricted their ability to mobilise collective action to strengthen adaptive capacity for climate change.

4.3. Gender stereotypes restricted CBOs to link with formal institutions

Attempts were made to link female-led CBOs with various formal institutions (i.e., Union *Parishad*, NGOs) throughout the project. Data analysis reveals however that the CBOs were unsuccessful in establishing networks with local government institutions, yet a strong linkage was established between the REE-CALL project staff and CBO leaders, which had unintended consequences on adaptive capacity of communities. We elaborate this finding here.

CBA interventions in the REE-CALL project sought to build awareness among CBO members and leaders whereby they could hold the elected representatives and appointed officials accountable for providing better service delivery. The project aimed to raise awareness among women through arranging various training and organising meetings at the office of the Union *Parishad*. The meetings were assumed to be a space for building networks between citizens and the elected representatives. CBO leaders, however, said that only a temporary network had developed with the local government institutions due to recurrent participation of project activities in which project staff were actively involved. However, such networks had ceased immediately when the project stopped arranging such activities. One CBO leader pointed out:

As long as the project was active, they [Union Parishad's chairperson and members] listened to what we said... now they forget us. (Participant 7, #CBO 3).

Given the prevalence of highly hierarchical social relations and gender norms, female CBO leaders neither collectively nor individually were successful in building networks. Women were well aware of their low position in the social hierarchy that impeded them in developing networks with people who had high social status. They were reluctant to talk to elected officials either individually or collectively. In addition, gender norms restrict women's mobility within their community, and therefore the female leaders of CBOs were reluctant to establish any sustained linkages with extra-community institutions such as the Union *Parishad*. As one woman explained,

We are women, poor, illiterate and weak; we don't have courage to talk to them [elected public officials]. (Group discussion, #CBO2).

The elected representatives, on the other hand, were reluctant to build direct networks with women-led CBOs. Such apathy stemmed from existing patterns of relationships that benefit them in various ways. We observed that local representatives tended to maintain a social distance from marginalised groups such as 'poor women'. Vulnerable people often do not contact elected officials directly to access the government resources that are allocated for managing diverse risks. Instead, they contact informal brokers (*dalal* or informal negotiating agents) for getting those resources. The *dalals* negotiate for the poor in return for

loyalty or a bribe that they often share with local representatives. If a direct relationship is built between CBO leaders and the local representatives, both representatives and informal brokers may experience losses in terms of money, loyalty and authority.

Although CBOs could not make links with local government institutions, our analysis reveals that a sustained linkage was established between some female leaders of CBOs and project staff. Most of the REE-CALL project staff were previously involved in implementing several community-based development projects and programs in the studied communities. They therefore were known in the communities. These pre-existing networks largely shaped the relationships between the project staff and community actors, particularly with women leaders of CBOs. A few core leaders of all CBOs said that they enjoyed very cordial relations with their respective project field staff. As one CBO leader emotionally expressed it:

I feel actually deep attachment with project staff. They are also attached to us emotionally. We have benefited a lot from the project, so we will keep that in our memory forever. (Participant 4, #CBO4).

Such social capital was produced because the women leaders were dedicated to observing and practicing norms, principles and rules of the group according to the requirements of the project. The project staff were profoundly dependent on these leaders for the implementation of project activities. Although the CBO leaders had to bear the burden of managing the group, they were sincere in their duties. Interviews and group discussions with CBO leaders indicated that the strong ties with project staff substantially motivated them to follow the 'direction' of the staff. As one CBO leader put it,

We had to face lots of trouble to go to the meetings, but we never missed. We went everywhere whenever [name deleted] asked...A good relationship was created; he is like a member of our family. So we didn't want to disappoint him. For this reason, he is quite satisfied with us. (Participant 8, #CBO4).

Such norms of trust and reciprocity, however, were developed between only a few leaders of the group and project staff. Some of the CBO leaders who were not able to build such strong links with project staff expressed their disappointment. They also felt excluded and deprived of the various opportunities that were available for the group leaders. Consequently, these leaders did not participate in CBO activities to the same extent as leaders with strong ties with project staff.

The project envisioned that the female-led CBOs would become a self-reliant organisation and gain capacity to establish linkages with other local government institutions. However, the female leaders of all four CBOs said that they had not able to create any sustained linkages with these formal organisations due to their marginalised position in terms of gender, wealth and education. Only 'strong ties' were developed between key leaders and project field staff that had created dependency on the implementing agency that apparently weakened capacities of communities in organising their own initiatives (see Table 1). Such dependency constrained the capacity of female-led CBOs to become a catalyst to build community capacities to adapt to climate change.

5. Discussion

Our results reflect that the creation and maintenance of social capital through CBO-based CBA interventions faced challenges because of the prevailing gender norms and networks of rural communities in Bangladesh. We found that the social capital of individuals depends on a wide range of socio-cultural factors, including kinship links, gender, class positions and social status (Masud-All-Kamal and Hassan, 2018; Cummings et al., 2019; Jordan, 2019). In this sense, women possess different forms of social capital than men. Women's social capital in rural communities predominantly depends on informal and horizontal

Table 1

Summary of factors that constrain the formation of social capital through CBA interventions.

Forms of social capital	Constraining factors
Bonding (intra-CBO relationships)	Rural kinship structure dominates formation of community organisation. Absence of homophily by gender and class position.
Bridging (CBO and other segments of community)	Gender norms obstructed women to connect different segment of community. Patriarchal family and social system barred to unite elite and masses. Being a member of lower classes inhibited female leaders to gain trust from various segment of their community.
Linking (between CBO and extra-community organisations)	Male superiority and elite dominance in rural institutions impeded CBOs to establish networks with local government institutions. Prevailing patron-client networks and politics. Over-reliance on field project staff.

Source: Interviews and group discussions at Sandwip, 2017.

social networks such as family and kin relations, and therefore they want to strengthen such relationships via CBOs. This in turn restricts the rural women in building cognitive social capital (i.e., norms, shared values and willingness) that requires to act cohesively in CBOs to obtain capacities to address risks associated with climate change.

We found that CBA in practice tends to assume that women are homogeneous and a disadvantaged group within a community. It also conceptualises gender as a binary opposite: male versus female. Such framing is problematic because of "overlooking significant differences with regard to knowledge, resources, and power within gender groups that shape development and adaptation outcomes" (Carr and Thompson, 2014, p. 146). As our findings reflect, class position, family status and education level of women influence their involvement in adaptation measures. Therefore, the division of a local community into gender categories by REE-CALL or other NGO-facilitated planned adaptation, fails to account for the complex interactions between gender and other social markers such as class, age and education attainment (Djoudi et al., 2016). This suggests external agencies need to frame adaptation strategies that embrace the intersection of gender, kinship and class that shape vulnerability to climate change in coastal communities of Bangladesh.

Results indicate that adaptation interventions must initially focus on building strong intra-CBO ties, which in turn will motivate the groups to establish networks with other groups within and beyond their communities. This assertion is also supported by Carroll and Bebbington's (2000) study in the Andean Highlands, which found that development of strong bonds enhances cooperation within the groups that apparently contributes to increasing 'weak ties'. We suggest that CBA interventions need to focus on building trust and willingness within all groups, to ensure active cooperation within the CBOs (Ostrom and Ahn, 2009; Ensor et al., 2018). The groups in turn, may contribute to solving collective action problems that require responses to the threats associated with climate change (Adger, 2003).

The creation of social capital is vital in order to strengthen adaptive capacity of communities vulnerable to climate change (Hagedoorn et al., 2019; Patnaik, 2021). In order to enable vulnerable groups to develop social capital, planned adaptation interventions need to be developed based on local culture (McNamara et al., 2020). We argue that, instead of forming new organisations like female-led CBO, adaptation initiatives could draw on pre-existing groups (e.g., local voluntary groups, savings and microcredit groups), because they may already have a strong internal bond, willingness to cooperate and external linkages.

This study has revealed that the female-led CBOs have had limited success in expanding linkages with local government institutions and other NGOs. These organisations seemed reluctant to connect with the

female-led CBOs for promoting climate actions. Some CBO leaders, however, were successful in developing strong ties with field staff of the project, which had negative consequences for intra-group capacity, solidarity and cooperation. For instance, the CBO leaders who had intimate relations with project staff tended to exert power over the groups which led to intra-group disputes. Such close connections undermined leaders' capacities to run CBOs by themselves. Likewise, research in the Pacific Islands reveals that externally initiated and funded climate change adaptation projects not only created dependency, but also weakened the traditional risk reduction mechanism (McNamara et al., 2020). We therefore suggest that adaptation scholars and practitioners need to pay greater attention to avoiding the negative externalities of strong social capital for enhancing effectiveness and sustainability of planned community adaptation to climate change.

Findings also reflect that, not all female leaders can uniformly acquire social capital, thus group-based interventions tend to not only create inequality and tension within the groups, but also foster exclusion, marginalisation and conflict within target communities. More specifically, conflict between project participants, non-participants and local elites become a challenge to the attempt to strengthen the capacities of new community organisations such as CBOs. In some cases, conflict became overt when some local elites were criticising the female leaders in public spaces for breaking social order and harmony that restricted the leaders to link CBOs with other organisations and institutions. It therefore is argued that without sufficient understanding of complex relational dynamics such as gender and class-based relations of rural communities, adaptation interventions might lead to the erosion of existing social capital in rural communities of Bangladesh, as is also found in Semi-Arid Regions of Sub-Sahara Africa (Soeters, 2016) and Pacific Island countries (Westoby et al., 2020). In order to avoid such unintentional consequences, this study suggests that project planners and practitioners must be aware of unintended negative effects of building social capital (e.g., exclusion, conflict) through external interventions. Specifically, more care needs to be taken to build trust and linkages between CBOs and other community actors to overcome conflicts (Sultana and Thompson, 2017).

We argue that building social capital through CBA requires a high level of participation of the whole community, rather than emphasising only a particular category of individuals such as 'poor women'. Communities need to be allowed to decide about the strategy for strengthening of social capital. This may result in a sustained impact on the capacities to adapt to climate change. We assert that NGOs must not impose their decision over local communities about target groups, rules, regulations and leadership of CBOs and adaptation interventions per se; rather they may facilitate communities to lead the process of building social capital for strengthening the capacity to adapt and respond to climate change.

6. Conclusion

This paper has examined the factors that influence the creation of social capital through NGO-initiated CBA interventions in the rural coastal communities of Bangladesh. NGO-initiated adaptation interventions such as REE-CALL project seek to create strong social ties among the 'poor women' to build the adaptive capacity of their communities. However, we found that female-led CBA interventions were not in fact able to build different forms of social capital because prevailing societal norms, as well as the imposition of norms, rules and regulation on CBOs by external agencies. Instead, counter to its intent, the adaptation interventions led to the erosion of existing cohesion and cooperation within communities that undermined their adaptive capacity. This is because climate adaptation interventions were framed based on a simplistic notion of gender (i.e., men-women binaries) that restricted women from acting proactively to build social capital and strengthen their adaptive capacity. In order to make planned adaptation effective and sustainable through the formation of social capital, it is

essential to focus beyond single variable such as gender, class and economic conditions. Insights from an intersectional study like this one, may enable the external organisations (e.g., NGOs) to understand societal structure that shapes existing social capital, as well as formation of new social capital. While existing social institutions, both informal and formal, tend to reinforce power asymmetries and gender inequality (Jordan, 2019), NGO-initiated adaptation interventions have the potential to redress local power structure through the strengthening of grassroots social capital to build adaptive capacity to climate change.

Our findings also underscore the need to understand diverse forms of locally situated social capital that influence (both positively and negatively) local adaptation outcomes. NGO-initiated CBA projects, however, are unlikely to engage in a deep analysis of local social capital due to top-down project design (Masud-All-Kamal and Nursey-Bray, 2021). This results in conflict between newly formed CBOs and existing informal institutions. In order to avoid such unintended consequences, CBO formation needs to be deliberative and participatory. If the adaptation initiatives allow the local communities to decide whether they need a new organisation or pre-existing ones will serve the purpose, adaptation efforts may become more effective and sustainable.

This research contributes to an emerging literature that analyses the complex links between climate change adaptation, social capital and gender. It is argued that planned adaptation to climate change needs to frame gender from an intersectional point of view if it seeks to enhance adaptive capacity of rural communities through female-led organisations. Analysis of this case study may be transferable to other contexts, where planned adaptation seeks to strengthen adaptive capacity through fostering social capital. Thus, this study provides important insights for future adaptation interventions at local scale.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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