Gender, Power, and Resilience in the Char and Haor Regions of Bangladesh: Evidence-based Learning for Resilience Programming

FINAL REPORT
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Executive Summary

The pursuit of household and community resilience has become a key development objective. Resilience programming decisions have therefore focused on strengthening resilience capacities, which are often evaluated in terms of the assets and resources individuals and communities possess to deal with shocks or stresses, along with the strategies, relationships, and services they also use to prepare for and respond to social and environmental change.

The usefulness of resilience as an analytical lens and a development strategy is widely accepted within the development community. There is, however, an evidence gap regarding the central role of power in shaping resilience. Power here is understood as a person's ability to choose between different ways of living, and is thus deeply rooted in social status, values, and norms, what we call "slowing moving variables." The recognition of the importance of power and its connection to resilience is a call for systematic research to shed light on the power people have in their lives and the power people have over others can inform resilience programming. This study documents changes in local power relations in the context of a concentrated, long-term NGO effort to enhance women's empowerment and social inclusion of the poor and extreme poor in the highly vulnerable northern regions of Bangladesh.

The report relates changes in power to central building blocks of resilience capacities and draws out lessons for complex resilience programming, and in particular the logic of sequencing, layering, and integration. It is intended to contribute to the urgent effort to address the on-going impacts of climate change in countries like Bangladesh. The empirical basis of our findings comes from a total of 254 formal and informal interactions with 768 unique individuals—the product of an innovative community-based ethnographic approach—across eight communities in the char and haor regions of northern Bangladesh. In this context, the main research findings relate to the projects three interwoven objectives.

Objective 1: Identify change in power relations as evidenced in women's status and social inclusion of marginalized groups over two decades of NGO programming.

Across the eight communities, there is evidence of changes in the traditional exercise of power to and power over. The difference resides in whether power is exerted by constraining opportunities and control of others (e.g., *power over*) or by enabling new opportunities for resource access, self-expression, and participation (e.g., *power to*).

Power to has changed in eight principal ways that together show an increase in the freedom of choice and agency people have in their lives. The report shows that:

1. Women's mobility has increased.
2. Women's role in household decision-making has expanded.
3. Livelihood opportunities have diversified.
4. Capacity-building efforts have opened employment options.
5. Information-sharing is more widely accessible.
6. Social projection and public services are more readily available.
7. Negotiation of contract terms has benefited the poor and extreme poor.
8. Community governance institutions have created more public participation.

There were four general categories of changes in *power over* that together demonstrate a loosening of the restrictions on individuals imposed by more power individuals and governance institutions. These include:

1. Negotiation of contract terms has benefited the poor and extreme poor in three primary ways: collective action has expanded fishing rights, access to agricultural land and tools has expanded, and labor wages and contracts have improved.
2. Social projection and public services are more readily available
3. Use of traditional governance institutions has eroded.
4. Women have more control over household decisions.

Our findings have lead us to our **first and second conclusions**: change in power relationships are most evident in increased agency and the sustained NGO presence in these communities has functioned as a major catalyst of social change.

Objective 2: Assess the impacts of changes in social inclusion on resilience capacities.

The justification for building resilience capacities resides in the evidence that equates higher levels of capacity to better development outcomes in the face of shocks and stresses. In this research, we have shown that there are 24 and 11 separate pathways for which power to and power over, respectively, affect the five core resilience capacities of social capital; livelihood diversification; disaster planning; household and community assets; and information, information, and technology.

Our findings have lead us to our **third conclusion**: changes in social dynamics and power effectively build resilience capacities.

Objective 3: Identify strategies of complex programming that produce changes in power relations and build resilience capacities.

1. ***Synergy among interventions is a fundamental programming principle in layering of interventions***. The evidence from SHOUHARDO provides multiple examples. While programming staff disagreed over which approach to women's empowerment—awareness building or expanding livelihood options—should be addressed in what specific order, there is a consensus that the two types of interventions together create a synergistic effect toward the intended goal. Furthermore, layering interventions requires a dynamic understanding of how change works within a community.
2. ***Complex programming requires a systems approach—and integration is a core component***. A complex program manages many interventions, sectors, and development actors simultaneously. Complex programming for resilience outcomes must be multistranded and requires the integrated participation of many actors, including those close to the targeted communities and those far away.
3. ***There is not a prescriptive or optimal Sequencing, Layering, and Integration (SLI) approach, but there is SLI logic inherent to complex programming***. There is an underlying sequential logic of interventions in SHOUHARDO. The introduction of an institutional structure through which program interventions can be channeled, like the Village Development Committee, creates common interests and identities and constitutes a necessary first step for other interventions. Subsequent to this, capacity building interventions were precursor activities to other interventions, such as asset distributions, that brought technical support designed to meet project objectives. The SLI finding is that intended types of change occur in a step-wise fashion and must be accommodated in complex programming.
4. ***Community engagement is critical for successful SLI programming***. Local residents do not perceive the multi-dimensional systems approach that has informed the NGO presence in their communities. Rather, residents perceive development activities as piecemeal and struggle to articulate how the interventions mesh. The discontinuity between NGO and local thinking likely arise because community members do not adequately participate in the design of the SLI logic, nor do they assume ownership of this dynamic of change. The fact that community members do not see the "sum of the parts" suggests that opportunities to create more tailored SLI designs are possible.
5. ***SLI requires internal and external stakeholder engagement and buy-in***. Effective integration calls for coordination among diverse implementers and among different teams within an implementing organization in order to improve efficiency and efficacy at the community and higher administrative levels. The main risk to complex resilience programming is that goals within sub-implementer units (e.g., a WASH team or a DRR team) supersede those of the whole project. At a minimum, disjunctive approaches will suppress synergistic benefits.

Our findings have led us to our **fourth and fifth conclusions** that related to designing and implementing complex resilience programming: focusing on agency can aid monitoring, evaluation, and learning (MEL) and that a community-based ethnographic approach is a tool fit for the purpose understanding the complexities of local realities, particularly the exercise of power.

In summary, the learning drawn from these findings is instructive for designing and analyzing complex resilience programming in three important ways. **First**, the focus on power and resilience unearths a nuanced understanding of how social systems work, which helps avoid benefiting only entrenched elites, creating mal-adaptations, and reinforcing inequity, conditions that are at odds with desired resilience outcomes. **Second**, resilience programming emphasizes interventions that integrate across scales. A focus on power identifies the mechanisms that facilitate (or impede) collective problem solving. **Third**, a nuanced understanding of community relationships aligns with, indeed is the necessary foundation of a strategy of localization and community ownership of the process of change toward a more resilient future.

Introduction

As the pursuit of household and community resilience has become a key development programming objective, there is a growing need to understand the complex dynamics that determine resilience capacities. From the definition of USAID, *resilience is the ability of people, households, communities, countries, and systems to mitigate, adapt to, and recover from shocks and stresses in a manner that reduces chronic vulnerability and facilitates inclusive growth* (2022 Resilience Policy Revision, draft as of December 2022). Most resilience frameworks and measurement approaches (e.g., TANGO International 2018) measure resource capacities which consist of the *assets, resources, strategies, relationships, and services that people, households, communities, systems, and/or countries rely on when experiencing shocks or stresses (ibid.)* In many cases, a recurrent monitoring system is employed to measure these capacity values at sequential intervals of time and to interpret changes as evidence of movement in resilience. While the utility of this approach has proven effective in terms of measuring associations between discrete variables and resilience outcomes, there is much to be learned about how power dynamics generate and allocate these resilience capacities among different households and across communities. In fact, resilience has insufficiently engaged with questions of power and access to resources (Mikulewicz 2019).

In quantitative studies of household resilience, the individual components of resilience capacity[1] are empirically measured and each household is attributed a value for each component to arrive at an overall score. The estimated value, however, does not reveal the social dynamics that underlie how individuals and households make choices about their livelihoods and obtain access to assets. In fact, the variable patterns of asset ownership within a community are not static but rather the outcomes of continuous interaction among the social actors who make up the community. This study seeks, then, to understand the ability of individuals to access resilience-building resources as a function of the relationships of power embedded in social values, local norms, and local narratives. We build off the notion that to understand the resilience capacities among households and within communities, it is necessary to focus on the details of social interaction and the underlying power dynamics. As several have argued, the importance of power in resilience is at the cutting edge of inquiry and debate on how to catalyze, measure, and manage resilience in development (Carr 2019; Dewulf et al. 2019; Kashwan et al. 2019; Tschakert et al. 2023).

This study documents changes in local power relations in the context of a concentrated, long-term NGO effort to enhance women's empowerment and social inclusion of the poor and extreme poor in the highly vulnerable northern regions of Bangladesh. Importantly, the learning drawn from the relationships between power and resilience is instructive for designing and analyzing complex resilience programming in three important ways. First, the focus unearths a nuanced understanding of how social systems work, which helps avoid benefiting only entrenched elites, creating mal-adaptations, and/or reinforcing inequality, conditions that are at odds with desired resilience outcomes. Second, resilience programming emphasizes interventions that integrate across scales. A focus on power identifies the mechanisms that facilitate (or impede) collective problem solving. Finally, a nuanced understanding of community relationships aligns with, indeed is the necessary foundation of an operational strategy of localization which insures community ownership of the process of change toward a more resilient future.

In this context, the report addresses three interwoven objectives:

1 Often described as *absorptive, adaptive,* and *transformative*

Objective 1: Identify change in power relations as evidenced in women's status and social inclusion of marginalized groups over two decades of NGO programming.

The study analyzes change in forms of social interaction (i.e., the implicit rules under which people relate to one another) in communities within the vulnerable north and northeastern Bangladesh.[2] The particular focus assesses women's status (and the impact on women's empowerment) and the social inclusion of traditionally marginalized segments of the local population. There is widespread agreement within the development community that the successful integration of women and marginalized households into local social and economic affairs generates desirable and sustainable development outcomes. Indeed, there has been a widespread and sustained NGO effort, supported by public policy, to promote women's status and social inclusion in Bangladesh. The social values and norms that condition the social status of women and the marginalized poor are engrained in the cultural fabric, thus "slow-moving" and resistant to rapid change. This study gathers systematic evidence to demonstrate how such change has occurred in community life in these regions of Bangladesh.

Objective 2: Assess impacts of changes in social inclusion on resilience capacities.

This second objective answers this question: do changes in power relationships correspond to changes in resilience capacities? There is substantial empirical evidence that connects horizontal (within the community) and vertical (outside the community) social relationships with positive household and community resilience (e.g., Ramcilovic-Suominen & Kotilainen 2020). This study contributes to that literature and compiles evidence to show precisely how changes in power relations are reflected into resilience capacities. The pursuit of this question has raised a separate hypothesis: that an evolution of social norms that shape social interaction affect the ability of households to manage shocks and stresses. Such a hypothesis insinuates the direction of influence travels from the social relationships to resilience, and thus this objective further seeks to provoke resilience analytics to move beyond associations among variables to root explanations of what shapes choice and agency.

Objective 3: Identify strategies of complex programming that produce changes in power relations and build resilience capacities.

The third objective interprets the observed changes in power relations and resilience capacities in terms of extensive resilience programming. In the study region, there has been a sustained, multi-decade presence of NGO activity, most prominently CARE/Bangladesh and the well-known SHOUHARDO program.[3] Over this period, SHOUHARDO programming has targeted women's empowerment and the social inclusion of the poor and extreme poor (PEP) as key components of the overall theory of change. Thus, SHOUHARDO provides an effective empirical reference point to exemplify the dynamics of complex resilience programming in practice. In particular, this study uses the example of SHOUHARDO to explore how a sequencing, layering, and integration strategy underpins complex programming designed to achieve multiple development outcomes. Complex programming here is understood as the design of large-scale projects involving multiple sectors and diverse intervention sets, and multiple actors and stakeholders interacting at multiple scales.

Taken in their totality, these three objectives speak more broadly to the organization of complex programming directed toward changes in power relations. The salient question is how the logic of complex programming is constructed to yield intended change and desirable resilience outcomes. To achieve this set of interrelated objectives, the study has employed an innovative community-based ethnography methodology that captures the richness of social interaction within the rural community under the lens of changes in the power relationships.

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2 We use the nature and content *social interaction* as an observable measure of power relations among different social actors in a community (and outside the community. Cultural values and norms for appropriate behavior define the dynamics of social interaction.

3 SHOUHARDO is a Title II Food for Peace project (today called RFSA) that evolved from the Integrated Food Security Project (IFSP) in the early 2000s. From that time, there have been three iterations of SHOUHARDO, currently SHOUHARDO III (extension) is active in the region.

Power and Resilience: Addressing the Gap

The purpose of this study is to relate the exercise of power, as reflected in engrained values and norms that underlie social interaction, to a level of resilience capacity that "...ensures adverse stressors and shocks do not have long-lasting adverse development consequences (Constas et al. 2014)." This capacity is assessed in terms of the capabilities of people, communities, and institutions to, at least, *maintain* a status quo in the aftermath of shocks like droughts, conflict, and pandemics. While not explicit in this formulation, resilience also raises the possibility of transformative change in the status quo (Folke 2006; Nightingale 2017), which can have implications for existing power relations.

Resilience studies have tended to overlook the ways in which power is exercised among stakeholder groups (Dewulf et al. 2019; Kashwan et al. 2019; Tschakert et al. 2023). This omission is consequential because power has been long-considered the major factor in the unequal distribution of livelihood capitals, including in the natural, human, financial, political, and social capitals.[4] Power in a development context can be exercised in many ways: who participates, the ways people participate, the ways groups gain control over resources, and the capacities people have to decide trajectories of their lives.

To address this gap in resilience thinking, we bring centerstage the role of power in building resilience capacities. We adopt a meaning of power closely related to the Latin root of power, *potere*, which means 'to be able.' Power is, therefore, an ability or a capacity to do something and it can be observed in forms that *enable*—as in power to do something—or that restrict—as in power as control over something or someone. The approach employed seeks evidence of change in patterns of control over important resources and in the agency of individuals and households to pursue their well-being goals. This study then links the impacts of this change to the management of risk in the context of Bangladesh.

4 For example, In Nepal, wealthy and politically well-connected individuals and groups exerted control in the creation and implementation of climate adaptation programs and policies (Nagoda & Nightingale, 2017)

The Char and Haor Context in Bangladesh: The Resilience Challenge

This section describes the nature of the climate-based shocks and stresses experienced by communities in the two study regions, and they present two different forms of climate risk. The chars are riverine islands formed by the river dynamics of bank erosion and soil deposition. In the north, they are spread along the flanks of the Brahmaputra and Teesta rivers fed by the Tibetan watershed in the Himalayas.[5] In the monsoon season, the river system swells in volume and velocity, and its annual flooding is a key element of the agro-ecological system in Bangladesh.

These river dynamics create significant amounts of bank erosion and deposition that at once destroys existing agricultural cropland and regenerates it as chars elsewhere downstream. Where chars increase in size with each year's flooding, land-scarce households begin to occupy the island area and establish farming livelihoods. Periodically, the monsoon season ushers in particularly severe flooding, which destroys homesteads and damages agricultural fields, fishponds, and other livelihood resources. Thus, the major risks for vulnerable households in the chars are the loss of valuable cropland (through riverbank erosion) and severe flooding that can occur in any given year.

Figure 1. Examples of extensive riverbank erosion in Bangladesh. Sources: (left) Hasnat et al. 2018; (right) author.

The haors are wetlands the result of a geological depression in the northeast region. During the monsoon season a single haor can cover as much as 180 km2 in area at a depth of several meters. The haors are fed by transboundary rivers flowing from India and monsoon rains. During the winter months (November to April), the haors are mostly dry and are intensely cultivated with paddy rice and other crops. With the onset of the annual monsoons, the haors transform into large, often turbulent, waterbodies. The local populations have adapted to the fluctuating water levels by mounding earth and clustering in tightly spaced communities (see image). Most transportation at this time is by boat—to school, health clinic, and market. The annual flooding of the haors also brings large volumes of fishes, and fishing comprises a major livelihood activity at this time.

5 The Brahmaputra, which becomes the Jamuna River in Bangladesh, is the world's 9th largest river by discharge and the 15th longest. Its waters flow into the Bay of Bengal in southern Bangladesh.

In the haor, the nature of the annual shocks is related to the timing and volume of the flooding—if the monsoon arrives early while the rice crop is still in the fields, paddy production is severely damaged if not lost completely. There is also the risk of extreme flooding, which occurred as recently as June 2022. Flood waters invade the residential homesteads exposing lives and livelihoods to grave danger.

In both the char and haor regions, the resilience challenge is to manage these climate-based risks. While livelihood systems have adapted to these seasonal patterns in a general sense, the climate/hydrology outcomes of any given year are difficult to predict and unevenly distributed. Based on local perception, the char communities reported eight disaster years from 1988 to 2022; while the haor communities identified 6 disasters over the same period. The focus of this report is to relate documented changes in power to this risk environment.

Figure 2. People elevate their homesteads to protect Against annual, routine flooding in the Haor region. Source: author.

The NGO Presence in the Char and Haor Regions

Over the last 20 years, the NGO community has grown to have a vast transformative presence across Bangladesh. For example, CARE Bangladesh has worked among haor and char communities since the late 1990s: the 5-year Integrated Food Security Project (IFSP) gave way in 2001 to the first SHOUHARDO project, which is now in its third iteration. Among its many components, SHOUHARDO introduced local governance groups, such as the Village Development Committee (VDC) that sought to provide a voice for all segments of the community and intensely promoted women's empowerment through awareness campaigns and expanded economic opportunities.

The well-known Char Livelihoods Programme (CLP), initiated in 2004 under funding from UK and Australia donor agencies, combined asset distribution with local governance mechanisms and women's empowerment interventions similar to those of SHOUHARDO. Regional Bangladeshi NGOs such as RDRS (Rangpur) have also worked extensively in local communities in the chars. Given the pervasiveness of NGOs operating in the microfinance sector, it is not uncommon to have multiple NGOs promoting similar interventions concurrently in a single community.

BOX 1. VILLAGE DEVELOPMENT COMMITTEES (VDCS)

VDCs are formed as a community-based group. The committee is responsible for identifying local needs and planning community-led development activities. The VDCs promote community involvement in the decision-making process, ensuring that the program meets the specific needs of the community. VDCs often serve as the connecting body between the local community and other stakeholders such as local government, and by empowering local communities and building their skills in problem identification, planning, outreach/resource mobilization, they enhance the sustainability of program impacts.

Methodology: Community-Based Ethnography

The study is constructed upon an immersive community research approach that we have labeled *community-based ethnography* (CBE). Inspired by the time-tested anthropological approach (Atkinson et al., 2007) and prior community ethnography models (Austin 2003), CBE has at its core the three inter-related principles: i) an intense presence within the study community in order to gain the insider's perspective of experienced reality, ii) the reliance on building trust and rapport between researcher and community, and iii) extended and multi-sited information gathering to capture the nuanced richness of community social dynamics. In this section we present the community selection process, provide descriptive details on the selected communities, briefly summarize the CBE process, and describe the data collected as well as the methods of analysis.

Community Selection

The CBE approach was conducted in a total of eight communities, four in each of the char and haor districts. Each community has been part of the SHOUHARDO program, most recently in its third version, SHOUHARDO III. The selection process within each region sought out known sources of variability so that participating communities would represent a cross-section of the respective regions. The first criterion was location. There are communities that are relatively more and less isolated. The remoteness can impact access to resources and services, mobility, the effectiveness of elected leaders, among other differences. In the haor region, SHOUHARDO labeled the more remote communities as part of the "deep haor," which meant that during the monsoon season, all road access was cut off and movement out of the community required a boat. In the "less deep haor," communities were located near the water's edge of the haor, but community lands were often located within or near the water body. In the char region, the distinction was between the "remote char," characterized by poor road infrastructure, particularly in the monsoon season, and the "less remote char," in which communities have relatively open ground transportation year-round, especially to local urban centers.

The second criterion was based on a SHOUHARDO evaluation of the progress that each community was making toward project development goals. In 2018, CARE/BD conducted an assessment in Sunamganj and Kurigram districts and ranked 259 communities participating in the third phase based on key program indicators: access to income for men and women, improved food security, improved nutritional status for under-five children, pregnant and lactating women, and adolescent girls, strengthened ability to manage shocks, increased women's empowerment and gender equity, and level of access to public services.[6] For each region, communities were ranked relative to each other in terms of greater progress or lesser progress in demonstrating project success.

To avoid a sample skewed toward the most accessible communities that were judged the "showcase stories" of the project and to incorporate potential sources of variability, four communities from more isolated regions and four communities that displayed less progress were included. Table 1 shows our stratified sample, while also denoting the relative rank in terms of percentile, which conveys that the communities we selected in both the char and haor regions were substantially different in terms of development progress according to SHOUHARDO.

6 The ranking exercise 188 communities and 71 ranked in the char and haor regions, respectively. The percentile, noted in parenthesis for each community, is a calculation of the relative development progress for each region, and is calculated with respect to the regional community frequency (e.g., 188 and 71 in the char and haor areas, respectively). Each community received a score on an index ranging from 0 to 100.

Table 1. Summary criteria for the community selection.

	Remoteness	Greater Progress	Lesser Progress
char	**Remote**	Pashchim Rajibpur (59th)	Purba Bepari Para (5th)
	Less Remote	Bara Dargah (99th)	Mushrot Nakhenda (20th)
hoar	**Deep**	Manik Khila (100th)	Durlovpur(10th)
	Less Deep	Notun Krishno Nagor (99th)	Horipad Nagor (32th)

In the char, the four communities are located close to the major rivers of the Teesta and Brahmaputra. These communities are affected by episodic river flooding and persistent river erosion that both form and destroy the chars. In the haor, the "deep" communities reside within the Tanguar haor, one of the largest of the permanent water bodies that further expands during the monsoon season. In the dry season, both Manik Khila and Durlovpur can be accessed by vehicles on unimproved roads; however, during the monsoon season, these two communities require boat access. The other two communities in the haor are located on the edge of the Tahipur haor (also known as Dekhar haor). They can be accessed by vehicle year-round. Figure 1 shows the location of the eight communities.

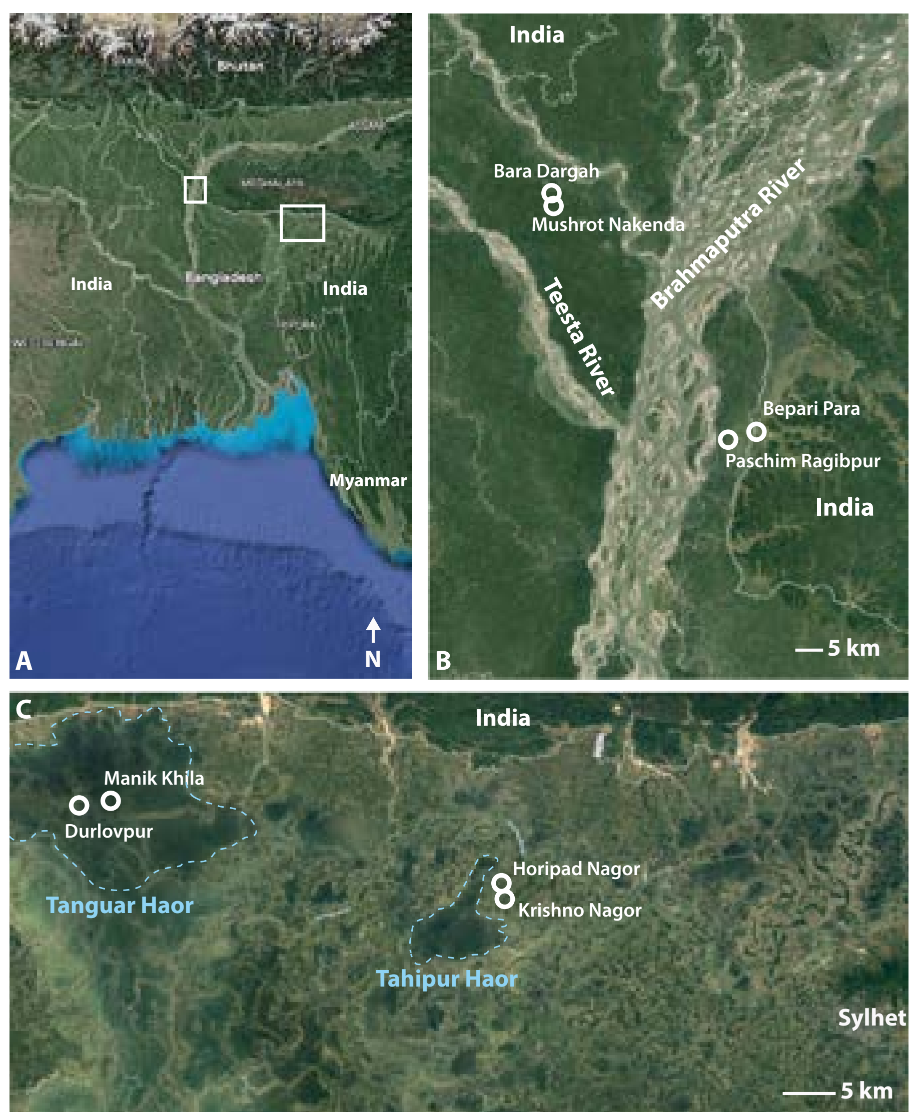

Figure 3. (A) regional map of Bangladesh and surrounding countries that displays in two boxes that encompasses the communities in the char and hoar; (B) communities in the char region; (C) communities in the haor region; the dotted lines display the margins of two hoars as they would generally be located during the drier periods.

The Community-Based Ethnography Process

To design and implement the CBE approach, our team engaged in an extended learning period in which we met remotely as a team once a week for two hours between April and June 2022. These virtual meetings focused on understanding the nature of the research questions, the key analytical concepts, the regional context in which our research occurs, and the step-by-step process of conducting CBE in the communities. Table 2 summarizes the general content of these sessions.

Table 2. Summary of the content during the initial project learning period.

Module	Core Content Discussed
Research Project Overview	• Research objectives and questions • Rationale for Community-Based Ethnography approach
Analytical Concepts and Framework	• Resilience • Women empowerment • Social inclusion • Nature of change power • Sequencing, layering, and integration (SLI) in development programming
Context of Project	• Characteristics of char and haor regions • SHOUHARDO history and strategy • Manifestations of SLI in SHOUHARDO
Methodological Approach	• Core principals of CBE • Develop community engagement strategy (building trust) • Information validation • Team analysis process
Methods	• Review of focus groups, participant observation, and interviewing • Secondary information analysis • Social actor mapping
Sampling Strategy	• Criteria for select communities • Select communities
Documentation Techniques	• Structuring database • Recording the data • Community reports
Logistics	• Safety plan • Community engagement sequencing

As designed in the sessions, the research teams traveled first to the char communities where community volunteer assistants were enlisted to help introduce the teams into the community. Two teams (each with one female and one male researcher) conducted the CBE in four char communities, then moved to the haor region, which had been devastated by severe flooding in June 2022. The two teams of two researchers worked independently in each community, spending approximately two weeks from morning to night (or where possible residing directly). This continued presence in the community and the interaction with residents comprised the main strategy for trust-building.[7] During the fieldwork phase, the CBE meetings continued on a weekly basis, as the availability of the field teams permitted. These meetings provided an opportunity for direct feedback and in-progress revisions to the field approach. At a second point in time, the teams returned to all the communities for 2–3 days to address information

7 Of course, trust-building is a complex process. The willingness to stay in the community, clearly explaining the purpose, showing interest in learning about the community, and participating in the daily flow of life are all contributing factors.

gaps and to validate initial findings with the residents.

During the fieldwork in the 3rd and 4th char communities (*Pashchim Rajibpur* and *Purbo Bepari Para*), the field teams were joined by the researchers from the U.S. This provided an opportunity for reflection on the progress of the approach, which yielded several revisions. Upon completion of all eight communities, including the follow-up validation visits, all members of the team met in Dhaka in May 2023 for a 9-day synthesis workshop.

Data and Methods of Analysis

The CBE approach employs a range of qualitative methods, including individual interviews, group discussions, and focused observations. Each discrete use of these methods is marked as a data "episode" relevant to the research questions. Rather than prescribe specific topic outlines, all forms of verbal and visual engagement were guided by the key components map that organized the content and the relevance of the information into the categories depicted in Figure 4.

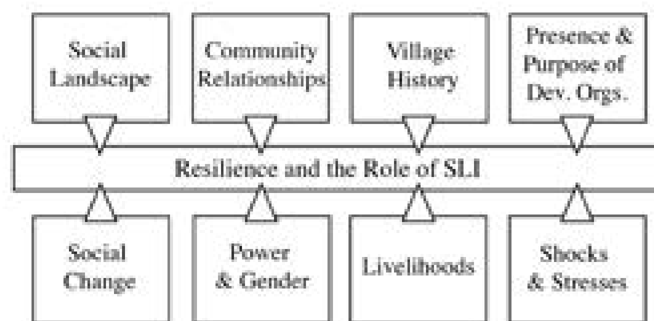

Figure 4. Key components map for the organization of field information.

In each community, team members participated in numerous formal and informal episodes. Table 3 provides a conservative estimate of the episodes in each community and by region (not including observation episodes). In summary, the field research team recorded a total of 254 episodes in the eight communities and involved the participation of 768 people over the entire sample.

Table 3. Data collection episodes summarized for the char and haor communities.

Type of Episode	Char		Haor	
	N. Episodes	**N. People**	**N. Episodes**	**N. People**
Informal Discussion	64	65	28	29
Key Informant Interview	30	30	19	19
Focus Group	56	318	38	288
Life History	5	5	14	14
TOTALS	155	418	99	350

From each episode, the team recorded their interviews, observations, and experiences in individual notebooks (fondly referred to by the team as the "*Golden Notebooks*"). Because the field researchers were paired in each community, they reflected on and shared their insights at the end of each day. From the notebooks, information was transferred as text (in Bangla) into a database organized into the information categories presented in Figure 4. In this second order of data management, the team distinguished text that was paraphrased, text that represented verbatim statements, and (researcher) personal interpretations of what had been heard and observed. After much discussion over the database content, the teams prepared community reports (in Bangla) organized following the key research components. In Dhaka, these reports were translated into English as "community stories." The material in these community stories constitutes the primary empirical content upon which this report is based.

Analytical Framework: Power and Resilience

As introduced above, the concept of power is presented in two categories: *power over* and *power to*.[8] The difference resides in whether power is exerted by constraining opportunities and control of others (e.g., *power over*) or by enabling new opportunities for resource access, self-expression, and participation (e.g., power to). As presented in Figure 5, the analysis identifies changes over time in significant forms of power to and power over in the haor and char communities, then associates these changes with resilience strategies. The examples of power to documented in the communities include the ability to pursue new livelihoods, engage more effectively in public activities, and greater participation household decision-making. Examples of changes in power over include control over resources, such as fishing rights, the ability to negotiate one's labor value, and greater exercise of rights. The analysis then relates these changes in power to impacts on the resilience capacities commonly measured in resilience assessments.

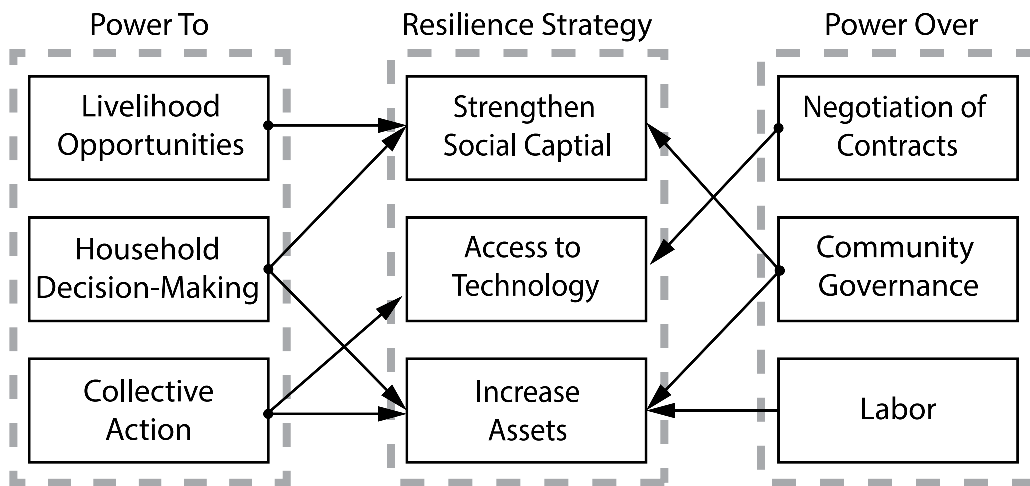

Figure 5. Changes in power related to resilience capacities.

8 Here, we follow Avelino & Rotmans, 2011; Woroniecki et al., 2019

FINDING 1

Evidence of Change in the Eight Communities

Across the eight communities, there is ample evidence of change in the traditional exercise of power. As residents repeatedly asserted, compared to a generation ago (or more), there has been a marked increase across all social strata in agency and mobility, that is, a change in power to. This is particularly evident in the case of women who as a group have seen their status and roles in society expand and have emerged as important economic actors. These changes in how society regards women, as reflected in social values and norms, have eased cultural barriers to entry into the workforce and opened channels for women's entrepreneurship both individually and collectively. In the case of the traditionally marginalized (poor and extreme poor), the changes have occurred predominantly in public participation and access to the public safety nets. Much of this change is associated with a greater reliance on collective action and rights awareness, as well as pro-poor advocacy efforts to sensitize elected officials.

Within the communities themselves, the residents indicate a shift in the traditional power institutions. Elite families continue to dominate the *salish*, the local arbitration committee that manages certain affairs of the community, settles resource (e.g., land) disputes, mediates marriage and inheritance conflicts, and generally maintains a gatekeeper role with regards to the external actors. Salish members and the traditional leader (*dewani*) are not elected and are not representative of the different neighborhoods (*paras*) of the community. Power is concentrated within families and often passed from father to son. Increasingly, however, the poor and extreme poor families, while not positioned to join the salish, are bypassing local authorities to negotiate their demands directly with the formal institutional structure at the Union and Upazilla levels. This is seen as increased access to public services and public goods (e.g., safety net transfers).

At a general level, the direction of change is toward diversification of household livelihood strategies. This reflects, significantly, an expanded social and economic role for women, an increased awareness of rights as expressed in collective organization and action, and a more responsive system of public services. In this one perceives the footprint of the decades of NGO messaging, organizing, and investing within these communities. As described later in this report, the rather continuous NGO presence has served as a catalyst of change in the char and haor regions. Alongside the NGO influence, however, there are other important drivers of change, such as the expansion of the labor market, particularly in the ready-made garment sector, where many community residents enjoy employment and to a lesser degree the opportunities for migration to the Middle East countries. These changes have been complemented by greater access to communication and information via cell phones and the internet.

The research teams documented specific changes in power relations observed in the communities, as detailed below. The analysis then relates these changes to specific household and community strategies that demonstrate an ability to bounce back to the status quo or to transform to a better condition after a time of great stress. In this context, power and resilience are linked, with power describing how an individual, household, or community influences the management of risk.

It is important to observe that the analysis here focuses on the less powerful segments of the communities. The social actors of interest are, for example, the woman in the household, the landless farmer, the day laborer, and the rickshaw driver, rather than the salish member, the large landowner, and the wealthy businessman. The changes documented within this group provide evidence of increased agency (*power to*) and reduced constraints and restrictions (*power over*). But it must be acknowledged that these changes are often subtle and represent a slow erosion of existing power relationships in the community rather than a fundamental systemic change of the power balance. The elite, wealthy individuals still exercise vast influence and control, while the poor and extreme poor groups still struggle.

History of Significant Events

In each community, the teams identified a variety of ways in which power to has changed over time. These change outcomes are classified into the eight categories described below. The categories were not uniformly present across all the communities, but they are the most frequently cited themes of change that emerged from the fieldwork. The dynamics of change in any community are complex, since they involve the realignment of social interaction. As part of this complexity, there is a significant level of complementarity among the categories. Changes may co-occur in different categories and one category of change may condition another. This dynamic synergy of categories will have implications for integrated programming, as discussed in later sections of this report.

The categories of documented change with respect to power to are as follows:

1. **Women's mobility has increased**. The consensus in the communities was that women are able to move more independently within the community and to neighboring places. For example, in contrast to the past generation, women now frequent health posts, hospitals, union councils, union digital centers, and markets unaccompanied. Relocation to the Dhaka labor market, particularly the garment factories. is now considered a routine decision, and, over the past five years, women have been working as domestic laborers in Middle Eastern homes. Such mobility implies not only the freedom to move about but also greater participation in public affairs and more economic options. There is variability in such mobility, and in some of the more conservative communities, women do not venture from the home unaccompanied by an adult male. But the community interviews affirm that in most places the social norms that restricted women's movement and participation have changed.
2. **Women's role in household decision-making has expanded**. Multiple examples from the fieldwork support the conclusion that household decision-making is now more likely to be shared between men and women. In contrast to the prior generation, decisions that involve family planning, employment, household investments, and response to shocks tend to be discussed and agreed upon, according to both men and women in the communities. Specifically, women independently spend and invest their resources, decide on household priorities, and participate in women's collective action (e.g., VSLA groups); although it is rare that the women would represent or speak for the household in the presence of a husband or adult male relative. Thus, while the patriarchal character of the household remains prominent, there is little doubt that the ability to earn an income has altered traditional intrahousehold decision-making.
3. **Livelihood opportunities have diversified**. This category represents an "opening up" of various opportunities for income generation. For women, the opening up has occurred as values, norms, and customs (including freedom of mobility) have changed. It is now acceptable in many households for women to seek and engage in work. In contrast with prior generations, many women now earn income outside their homes, engaging in such diverse activities as vegetable farming, tailoring, working for NGOs, agricultural day-labor, raising poultry, owning and working in small shops, and being employed in garment factories. Increases in mobility—both for men and women—has made seasonal migration a common livelihood diversification strategy and has opened opportunities for international migration to the Gulf countries and elsewhere.

4. **Capacity-building efforts have opened employment options**. Over the last twenty years, access to education and skill-training has greatly expanded the agency of women and the poor and extremely poor (PEP). As community residents attest, virtually every young person has a least a primary education ("in grandmother's time, women did not go to school) as a result of Bangladesh's aggressive commitment to universal primary education (MDG 2). In addition, NGO-based skill-building opportunities targeting women and the PEP have been highly effective.

5. **Information-sharing is more widely accessible**. This category includes both intra-community and inter-community exchange of information and resources. Within the community, changes in social values and norms have increased the participation of men and women in collective action, for example in the NGO-organized village savings and loan associations (VSLAs), through which strong bonds of social capital are often forged. With regards to inter-community connectivity, access to technological change (e.g., smartphones, mobile banking) and an improved communications infrastructure have enhanced ties of binding and linking social capital which help channel information and resources to community residents.

6. **Social projection and public services are more readily available**. A combination of NGO programs, government policies new communication technologies, and a greater awareness of individual rights has increased access to the multiple components of national safety protection program, including the cash transfers and food rations for vulnerable groups (mostly women, widows, disabled). Digital technologies have allowed for direct transfers of cash thus limiting corruption; NGOs have been providing education, development assistance, and rights awareness; and many residents cognizant of the safety net measures proactively pursue these benefits directly at the local governmental office (Union Parishad).

7. **Negotiation of contract terms has benefited the poor and extreme poor**. There is a consensus among community residents that the terms of economic engagement have shifted in favor of the poor and extreme poor. The evidence lies in improved access to khas lands, access to fishing rights in the haor communities, and in the negotiation of wage rates for the day laborers and shares for landless sharecroppers. In part, these changes can be linked to the growth of public institutions or even economic growth, but this does not diminish the influence of collective action and rights awareness.

8. **Community governance groups have created more public participation**. Community residents pointed out that the surge in collective action associated with the NGO promotion of group formation has resulted in more widespread participation in public decision-making. Groups have been formed around gender (e.g., VSLA, mothers' groups), neighborhoods (paras), occupations (e.g., fishers, ag laborers), and representative governance (village development committees—VDCs). In many cases these groups have provided a sense of basic rights and of a common agenda for change, and they have been recognized by the formal political and administrative bodies. In contrast to the past, where opportunities to express group interests were sharply constrained, there is evidence of greater collective voice and action.

Changes in Power Over

Analysis of the community reports yielded four general categories of changes in power over. From the perspective of the community resident, change in *power over* constitutes a loosening of the restrictions imposed by more powerful individuals and governance institutions. The following categories represent the more frequently cited change themes, although there is some variation across communities. Similar to power to, there is a complementarity among the categories.

1. **Negotiation of contract terms has benefited the poor and extreme poor**. Significant changes of control of productive resources due to improved bargaining positions included the following.

    a. **Collective action has expanded fishing rights**. Fishing rights have changed in three ways that have slightly favored the poor and extreme poor fishers. Contrary to the recent past, anyone in the haor can now fish during the first three months of inundation, a less productive fishing time in the annual cycle.[9] The elite, wealthier individuals historically have controlled all the fishing rights, but have ceded control during this time period. Second, some poorer fisher groups, through advocacy efforts, have gained access to leases over smaller haors near their communities. Here they are able to take advantage of the productive fisheries that emerge as the volume of water recede. Finally, in both char and haor waters, poor fishers organized as small groups (*samities*) are now able to obtain leases, access that was traditionally monopolized by the elite. As discussed below, these changes have occurred after NGO-influenced group formation and advocacy activities with locally-elected political elites.

    b. **Access to agricultural land and tools expanded**. There have been three types of changes in this category. First, equipment such as irrigation pumps and mechanical rice harvesters have become less concentrated in the hands of local elites. Increases in their availability have reduced rental costs while also increasing production. Second, the land tenure system has changed from a system dominated by sharecropping to a system where renting is more common. Renting gives the tenants more control over farming decisions and provides more favorable economic terms for the tenant farmer. Finally, there is now a more active land market that has decreased the concentration of land ownership. The exercise of collective rights has played a role in improved conditions for this landless class.

    c. **Labor wages and contracts have improved**. Labor rights have also been enhanced. Improved control over one's labor has been driven in part by the organization of labor groups that permit collective bargaining and more favorable terms of agreement. The NGO influence with rights awareness messages and pro-poor changes in policy have contributed to labor changes.

2. **Social projection and public services are more readily available**. The poor and extreme poor have gained heightened access to the multi-tiered national safety net program. These benefits include several forms of cash transfers that target the poor and specific vulnerable groups (e.g., widows, disabled). In part the program itself has expanded, but the efforts of NGOs and others have made residents aware of their entitlement rights and have pressured the formal public services (e.g., Union Parishad) to honor pro-poor commitments.

9 Many species of fish enter the haors with flood waters, and they both breed and grow out during the several months of the monsoon. As the rains cease, the waterbodies begin to recede, forcing the fish population to concentrate into ever more constrained areas. These are the most productive fishing grounds and are leased by the government to private actors, mostly to the elite, many of whom do not reside in the region.

3. **Use of traditional governance institutions has eroded**. Local conflict resolution is increasingly directed towards more formal institutions and away from traditional community-based institutions like the salish. The salish historically has been a vehicle for concentrating power within a few individuals and administering biased justice and community decisions (Alim 2011). The erosion of this power has pressured the traditional institutions to embrace a more pro-poor advocacy position.
4. **Women have more control over household decisions**. While patriarchy still prevails, men's control over household decisions in general, and women's role within the community and household has changed. Women now have more influence in household decisions compared to the past on such topics as education, family planning, and spending decisions from income they generate.

These categories of change (power to and power over) are empirically derived from community residents in their discussions with the field team. It is important to recognize that these are, in essence, changes in how people relate to one another on multiple levels, how people perceive themselves and others, and how people react to the many pressures and shocks that permeate their day-to-day reality. Power is not an on-off switch; rather it is a community tension inherent to the dynamics of social interaction and thus always being tested and in flux.

As seen in the categories above, the *power to* and *power over* are not independent phenomena but functionally related. As one group of people come to enjoy greater agency (*power to*) and gain access to livelihood options, their exercise of power can slowly erode the *power over* (control over resources, voice) relationships. For example, as women expand the range of choices available to them, the *power over* equation begins to adjust, and their status in household and community slowly changes. This dynamic between the enhanced agency of *power to* and the control of *power over* appears to be highly complex and uneven, and it deserves more attention from the NGO community. In this study these changes in power relations were examined in terms of how people could manage their risk environment, as the following section presents.

FINDING 2

Impacts on Resilience Capacities

In the study region, lives and livelihoods are challenged by the movement of water. In extreme and unanticipated instances, the annual floods can destroy crops and cropland, homesteads and homes, assets and access. The severity of impact from these shocks varies across household and community, and not everyone can claim the same stock of resilience strategies to manage these risks.

The field research team documented across the eight communities different sets of risk management actions designed to prepare for, respond to, and recover from the flood shocks to which they are exposed. The community reports identified 19 such actions derived from a change in power as detailed above and which demonstrated an impact on resilience capacities (see Annex B for the specific risk management actions). The conceptual basis behind the different resilience categories in this analysis is found in widely-cited studies that have measured resilience capacities (e.g., TANGO International 2018). In some cases, these actions represented the expanded role of women, improved access to resources, access to technology and information, and the exercise of collective rights. In effect, the observed actions were interpreted as concrete behavioral manifestations of each resilience category:

1. **Strengthening social capital in the form of bonding, bridging, and linking relationships**. The mobilization of social capital is a well-known coping strategy for managing risk, both pre-shock and post-shock. It serves as the channel through which needed resources can flow, but it also provides the substance for collective action and problem-solving. Several actions observed in the communities demonstrate the value of social capital but also the mechanisms by which the stock of social capital accumulated. These included collective problem-solving, group formation, VSLA activities, and information sharing before and during shocks.

2. **Diversifying livelihoods to expand income sources**: The diversification of livelihood activities is a major resilience strategy as it spreads household and community risks across a range of income sources. Many resilience-serving actions observed in the communities derive from increased mobility and participation, including the expansion of women's economic opportunities and the open access to labor markets outside the community, both seasonal and long-term.

3. **Planning for disasters**: The preparation for shocks through planning and collective actions can reduce the negative impacts. The actions that constitute this category include NGO training and skill-building, especially in early warning information sharing, community planning (e.g., shelter routes), serving on disaster committees, and preparing floodproof areas within the household and homestead. This category has a strong gender component, since the decision-making roles of women have improved. Many of the planning activities, such as protecting homestead assets and investing in flood-proofing were organized by women in the household.

4. **Increase household and community assets**: A number of observed actions contribute to the accumulation and protection of assets. These include collective action to repair household and community infrastructure post-disaster, accumulation of savings (including livestock), access to lending sources, and participation in safety net programs.

5. **Access new knowledge, information, and technologies**: An important pathway to resilience is for households and groups to acquire new knowledge and technologies and to open regular channels to the flow of information. The actions cited in the communities included the adoption of high-yielding rice varieties, the use of mechanical rice harvesters in the haor, and improved fishing technologies. Another important resilience component was an expanded information exchange with the public sector, including public services and elected leaders. Access to market price information and going labor rates were also cited.

Relationships Between Power and Resilience

In the previous sections, the report has documented evidence of changes in power to and power over, as experienced over time by women and the traditionally marginalized groups in the selected communities. It has also reported on actions documented in these communities to manage risks and shocks, then collapsing these observed actions into the five resilience categories.

In what follows, the analysis focuses on the pathways along which changes in power have affected the resilience categories. Figure 6 presents the connections between *power to* and *resilience*, while Figure 7 shows the connections between *power over* and resilience. On each figure, the power categories are located on the left while the resilience capacities are on the right.

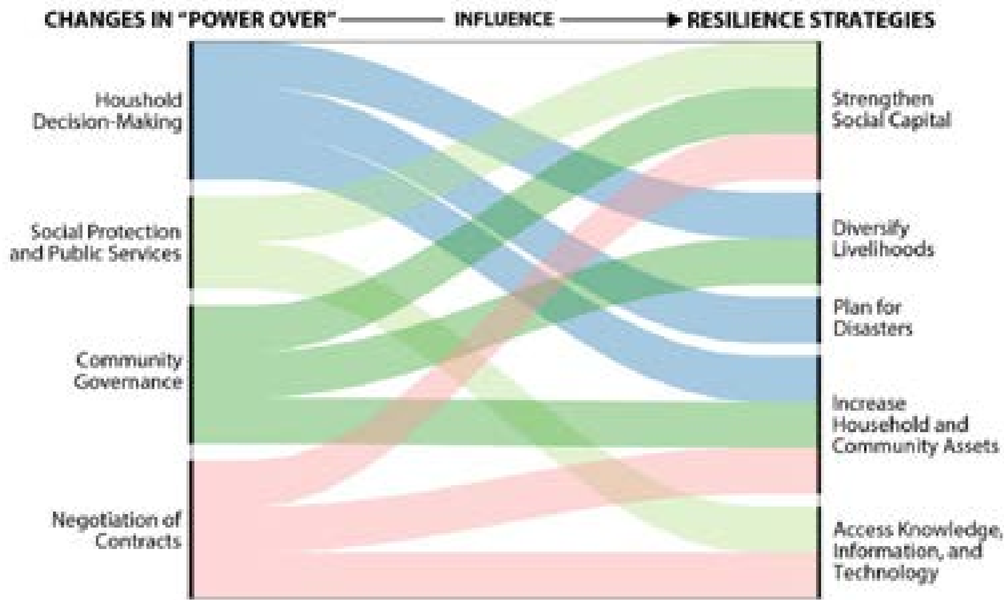

Figure 6. Linkages between changes in power to and resilience categories.

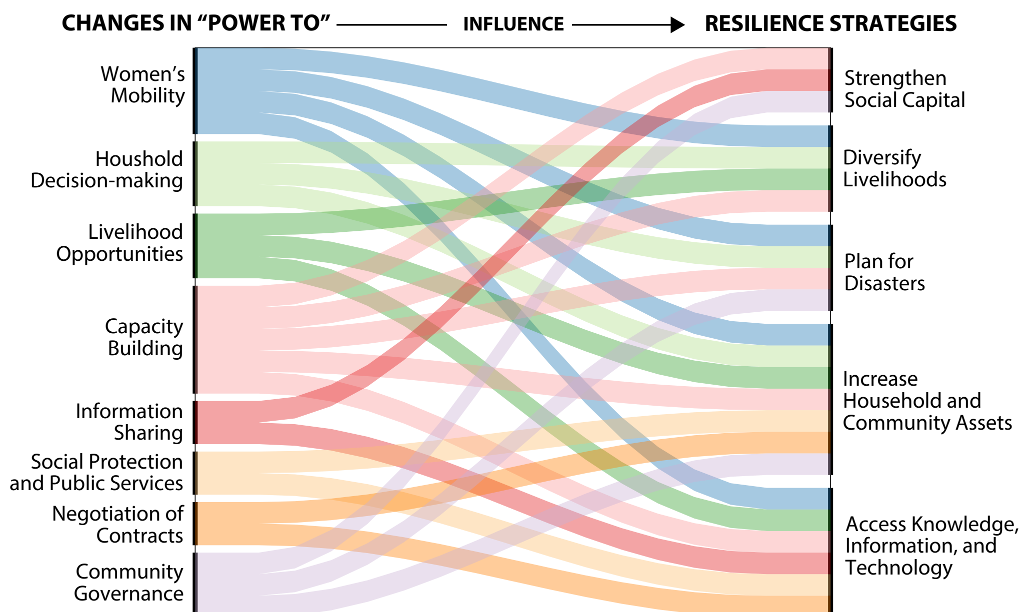

Figure 7. Linkages between changes in power over and resilience categories.

These figures illustrate where changes in power relations contributed to increased resilience capacities. As a reflection of the complexity of rural society, improved agency in the ability to negotiate contracts, such as access to fishing rights has an impact on two resilience categories: access to knowledge, information, and technology and increases in household and community assets (Figure 6).[10] In the case of changes in information sharing, where improved access to technology and to information has advantaged the poor and extreme poor, the resilience outcomes are reinforcement of ties of social capital (through greater communication) and access to new sources of information and ideas from outside the community (Figure 6).Most significant is that changes in the women's status and agency registers resilience repercussions across four different resilience strategies: diversification of livelihoods, increased household assets, improved disaster planning, and access knowledge, information, and technology.

These results suggest that the freedom of movement (mobility), control over one's labor and land/water (negotiation of contracts), awareness and exercise of one's rights (social protections and public services), and the ability to express collective interest and engage in collective action are the change factors that produce transformative outcomes in diverse livelihood options, in linking social capital, in household asset accumulation and savings, and in the ability to manage the risk.

The community reports emphasize the magnitude of change over the generations. For example, it is striking to compare women's roles in the household and community today as compared with those of the mother and the grandmother. It is now considered "normal" (in the sense of norms) for girls to choose education over early marriage, for wives to participate in family planning decisions, for women to pursue economic activities within and outside the household, for women to migrate to the factories in Dhaka or even to the Middle East; for landless farmers and day laborers to negotiate the terms of their engagement, for the poor and extreme poor to collectively demand their entitlements to safety net benefits, and for fishers to gain access to valuable fishing grounds (in the haor) and to improved capture technology.

The encompassing question is how these changes have happened. First of all, it is necessary to note that such change is uneven across and within communities. Not all women have experienced an advance in mobility (see above). Not all households have turned to face these winds of change…for reasons unique to a household or specific community. But the "new normal" has certainly engendered a change in social values and social interaction. In part, these changes represent a slow but steady response to the larger societal forces of modernization as manifest in both public policy and reigning social narratives (for example, against child marriage and acid-throwing). The argument here, however, is that a major catalyst of change has been the continuous presence of NGOs and complex projects like SHOUHARDO. In the communities of this report, there is a wide consensus that the NGO messaging, information sharing, capacity-building, and advocacy has played a major role in this process of slow-moving change. The following section turns to the lens of sequencing, layering, and integration to assess how complex projects like SHOUHARDO have achieved these resilience outcomes.

10 This flow diagram is based on the affirmations of community residents, thus limited to linkages that were explicitly recognized and cited. More detailed inquiry, however, might suggest that any change in power relations affects several categories of resilience.

FINDING 3

SLI and Complex Resilience Programming

The third objective of this study is to understand how complex programming can achieve the resilience enhancing changes documented in the previous sections. In complex, multi-sector programs, households might be expected to embrace a new rice variety, a homestead garden, or childcare practices more readily than a reorientation of social values and norms. Change in such deeply-held values is usually resisted to a greater or lesser extent and is thus a significant programming challenge. Among its many interventions, SHOUHARDO specifically targeted the social values that define women's role in the household and community as well as the exclusion of marginalized groups. It consequently provides an opportunity to assess the underlying sequencing, layering, and integration (SLI) logic designed to achieve these difficult goals. From this analysis, we seek to draw important insights and lessons learned for complex programming.

As is the case with SHOUHARDO, resilience projects supported by USAID tend to be complex and follow core programming principles that include layering interventions across sectors and funding streams, integrating programming to address multidimensional challenges; and sequencing interventions to maximize long-term impact (USAID, 2012). These principles assume that there is a logical ordering of multiple interventions, institutions, and stakeholders that reflects how people tend to behave and how change actually occurs.

The literature relevant to SLI in development is not large, and the understanding of what constitutes SLI is not always consistent. In a sense, the logic of SLI is intuitive in that it requires an articulated "systematic" ordering of interventions to adequately address a problem which is itself complex and multi-dimensional. There have been, however, limited analyses focused on the interactions of activities across sectors and among multiple actors. The most comprehensive analysis on the synergistic effects of multiple interventions is the meta-analysis by Ahner-Mchaffie et al. (2017). This report analyzes 601 quantitative studies of integrated evaluations and concludes that in many contexts integrated, multi-sector interventions have produced positive impacts. They note, however, that there are few impact evaluations that specifically examine the synergistic and interaction effects associated with integrated programming. In one such impact evaluation, Smith and Frankenberger (2022) used a quasi-experimental research design to show that the estimate of impact exponentially increased depending on the number of interventions. In other words, in this study the value of the whole was greater than the value of the sum of component parts. But, supporting evidence of this conclusion remains scant. Moreover, it is recognized that qualitative approaches, often omitted in analyses, can provide insights on how integration factors into the program outcomes (Ahner-Mchaffie et al., 2017).

Several USAID reports also tackle the issue of SLI. Kim and Scantlan (2020) interviewed implementing agencies from two programs in Nepal in the quest for lessons learned regarding SLI at the different stages in the program cycle. Some of these aspects include the use of a systems approach to assess the implementation context, identifying opportunities for integration across different interventions. The authors note that decisions about when and how to most effectively implement integrated, multi-sector programming need to be driven by evidence, rather than by assumptions about the amplified results of "doing more together."

BOX 2. SEQUENCING LAYERING AND INTEGRATION

Sequencing, layering, and integration (SLI) refers to a theory of change logic that organizes the interventions, actors/stakeholders, and learning processes in such a way that achieves complementarity, synergy, and redundancy of project impact. USAID has defined SLI as follows: ***Sequencing*** is the intentional organization and phasing of interventions and the way they are delivered, to coordinate the order in which activities are implemented and actors are engaged to maximize outcomes and sustainability. ***Layering*** is the strategic coordination of geographically overlapping interventions across the different sectors and stakeholders that complement each other to achieve resilience objectives. Interventions can be designed to layer over and build on the completed interventions in the recent past or ongoing interventions within or across sectors, stakeholders, and different pillars of assistance. ***Integration*** of interventions is the intentional layering and sequencing of multisectoral interventions and the coordination of actors to address needs and prevent or reduce the drivers and effects of shocks and stresses that undermine long-term well-being. (2022 Resilience Policy Revision, draft as of December 2022)

We address this gap in resilience programming through a focus on change in social variables (like power) and resilience outcomes. Within the complexity of SHOUHARDO, we look for the logic that decides how interventions precede or follow one another, how they are layered together to achieve intended synergies, and how the many stakeholders and interlocutors fit together to contribute to the common goal.

To accomplish this, the research team held a series of focus group discussions first with community residents, then with residents and NGO staff together in the haor region, and finally with programming staff of four NGOs (including CARE/Bangladesh) in Dhaka. The FGDs were facilitated around an exercise in which representatives from four haor communities prepared lists of all the NGO activities that had occurred (or were occurring) in their respective communities. They were then asked to discuss the linkages among these activities. With NGO staff present (and in Dhaka), the focus shifted to the SLI logic that ordered and integrated these interventions. The following section uses SHOUHARDO as its frame of reference but seeks the larger insight of how complex programming achieves resilience outcomes.

SHOUHARDO

While the assumptions and logic of change in SHOUHARDO evolved from its precursor (Integration Food Security Program—IFSP) through to SHOUHARDO III and S3X, there has been a consistent programming thread. Since the early 2000s, the intervention set has systematically targeted the poor and extreme poor in every community (identified through household surveys); there has been a focus on gender and women's participation; each version has been built around multi-sectoral improvements in food production, household income generation, improved family nutrition and child feeding practices, improved hygiene and safe water, and disaster risk reduction strategies; and increasingly the programming has recognized that communities are not isolates but parts of broader consequential systems, such as markets, private actors, public service providers, and formally-elected bodies.

Although the design of SHOUHARDO interventions was not articulated as an explicit SLI programming framework, there is an ordering logic that suggests a sequencing and layering of its multiple interventions. Table 4 lays out the annual phasing in of different interventions from 2016–22. It is possible to discern an underlying logic of layering interventions that address immediate and urgent needs, such as cash transfers, with those that focus on more longer-term outcomes, such as skill-building and group formation. Later the project focuses on more complex interventions such as local service development (which introduces the "local service provider" model, reinforcement of group activities, and national level advocacy. Focus-group discussions with NGO programming staff delved more deeply into these layering patterns.

Table 4. The ordering of SHOUHARDO III and S3X interventions between 2016 and 2022.

Types of Interventions	'16	'17	'18	'19	'20	'21	'22
Livelihood support (cash transfer)	•						
Commodity distribution (pregnant & breastfeeding mothers)	•	•	•	•			
Technical capacity building & group formation in, for example, farming, women's empowerment & youth employment	•	•	•	•			
Capacity building of aforementioned groups	•	•	•	•	•	•	
Build linkages with public and private service providers	•	•	•	•	•	•	
Repeat livelihood support				•			
Group reformation of self-selected groups				•	•		
Mobile money transfers				•	•	•	
Flood recovery cash transfer & plinth raising			•	•	•		
Local service model development				•	•		
Savings groups reformation				•	•		
Deep haor and remote char livelihood strategy & implementation				•	•	•	
Advocacy at the national level				•	•	•	•

Sequencing

To remind ourselves, sequencing refers to *"the intentional organization and phasing of interventions and the way they are delivered, to coordinate the order in which activities are implemented and actors are engaged to maximize outcomes and sustainability."* A key debate on sequencing among the NGO programming staff highlighted the distinction between those interventions designed to meet concrete community needs for livelihood training and asset support and those that promote awareness of social issues, such as women's status.[13] There are proponents of the argument that changes in social values and norms, such as women's status, occur only after women are earning income and contributing to the household economy. Other programming staff defend that the changes in gender awareness and women's status are prior to the expansion of livelihood opportunities (through asset distribution and training).

There is general consensus that complex programming must first introduce a framework for project governance through which program interventions can be channeled. Thus SHOUHARDO (and other NGOs in the region) initiate project activities with the formation of community groups that will be 1) representative and inclusive, 2) have the skills to coordinate the multitude of project activities, and 3) act as an institution that promotes a pro-poor agenda with community leaders and mediates between residents and the formally-elected power structure. The primary SHOUHARDO institution was the "village development committee" (VDC), but other groups were organized to represent sectors, specific stakeholders, and occupations. Thus, a mothers' group, youth group, fishers' group, farmers' group, husband-wife group, women's group (in SHOUHARDO, *EKATA* group), and the village savings and loan group (VSLA). According to the programmer focus group, this institutional structure

11 We blithely frame this: "feed the belly; feed the mind." In programming jargon, the distinction is between "hardware" (resources) and "software" (messaging, training, etc.).

is a necessary logistical step in implementing multiple interventions. But the evidence from the CBE also shows that such groups are effective vehicles of collective action, and collective action is a necessary component of resilience capacity. Once a group achieves a “collective identity” as fishers or farmers, etc., the pathway to rights awareness and collective action is clearer.

Analogous to the awareness messaging, another component of sequencing derived from the SHOUHARDO experience is the role of capacity building. Capacity training focused on enhancing skills is a major NGO set of interventions, evident in the SHOUHARDO program. There is a generic sequence in this logic: the formation of groups around common interests and identities (farmers’ groups, fishers’ groups, savings and loan groups, handicraft groups, etc.), then offer the capacity building the skills necessary to achieve member goals. In SHOUHARDO, there was a subsequent component to this sequencing, which is to “jump-start” the application of the newly-acquired knowledge in the form of assets and resource support. The CBE community reports provide multiple examples skill-building sessions that focus on expanding women’s livelihood options (for example, in running a tailoring shop). Post-training the participants received the tools or a cash transfer to set up the business, followed by regular technical support.

We present several important sequencing insights derived from the SHOUHARDO experience:

1. Sequencing is critical when a given development outcome involves a stepwise learning process. Learning a new skill or expanding knowledge (e.g., of improved nutrition) is inherently sequential. People learn in steps and become more confident and sophisticated in their understanding through time. The successful sequencing of interventions must acknowledge this process and support learning at different steps. The formation of groups for collective action is a revealing example from SHOUHARDO. A phase of capacity building and the nurturing of leadership skills must precede the actual functioning of the group. Such learning is not restricted to new technical skills (how to plant a new rice variety) but also to organizational skills (how to navigate the social protection system).
2. The second lesson is that the process of change is itself sequential. SHOUHARDO has demonstrated that it is necessary first to lay an institutional groundwork before tolling out subsequent interventions. Also, in the pursuit of a specific development change, such as the reduction of child marriage, the first step is the formation of an appropriate collectivity (in this case, the EKATA group or the youth group), followed by activities of messaging and leadership-building, followed by awareness-building among police and other formal institutions, followed by strategy for monitoring girls in risk of early marriage in the community. Most program objectives that envision desirable change has this time-depth, and it should inform the sequencing of interventions and activities.
3. A third insight from SHOUHARDO is that the sequencing of interventions tends initially to cluster stakeholders and actors from within the community; however, at subsequent stages, the interventions include a range of external actors—technical experts, government service providers, market agents, journalists, and so forth.
4. Finally, the sequencing of interventions is not linear nor uniform across communities. The SHOUHARDO experience the ordering of interventions adjusts to learning gleaned from the community in the course of implementation. As the program progresses, certain interventions may not be “ready” for a specific community, and the sequencing strategy must be revised. Among our eight sampled communities, each is unique in some important way that can affect program results. This inspires the insight that the sequencing logic is itself subject to change and must be grounded in solid knowledge of the local reality and community power dynamics.

Layering

We recall that *layering is the strategic coordination of geographically overlapping interventions across the different sectors and stakeholders that complement each other to achieve resilience objectives*. From the staff level discussions, layering is built upon the inherent complementarities of interventions that target different dimensions of a complex development problem. The assumption is that addressing one aspect of a problem is not adequate, and a comprehensive, complementary set of interventions must address multiple aspect simultaneously. Another assumption is derived from a layering logic—that interventions are also synergistic. The means that the set of overlapped interventions provide a household or community greater value than the sum of the individual interventions.

The programming focus group concurred that the layering of interventions is a function of the complexity of the development problem. In their telling, layering addresses the multiple constraints to change found in any community and profits from the known synergies among sectors (food production, income, nutrition, hygiene and water, disaster management, etc.) For example, it is widely assumed that enhanced child nutrition cannot be achieved without improved availability and access to quality foods. Thus, interventions designed to increase agricultural production and promote homestead vegetable gardens are layered with trainings to mothers' groups on improved diet, breast feeding and weaning practices, and access to clean water (and hygiene) because each one addresses a related dimension of the same food security problem in a synergistic relationship. Increases in food production, however, requires not only training (and seeds, etc.) but also regular access to technical assistance. In a prior SHOUHARDO version, complementary interventions focused on improving the formal service delivery system (e.g., agricultural extension) to meet that constraint. And in the current version, SHOUHARDO trains local service providers who, as private entrepreneurs, support agricultural and livestock producers on a fee basis. The technical assistance activity is complementary to the overall food security goal.

The layering logic of SHOUHARDO is also demonstrated in the quest for women's empowerment. The intervention set aimed at reducing the control over women (e.g., early marriage, dowry, gender-based violence) combined collective awareness-building with enhanced enforcement of gender violence laws (through advocacy activities) with complementary interventions to increase women's access to livelihood opportunities. While the programming focus group maintained different positions on the sequencing of women's empowerment interventions, all agreed that these layered interventions were necessary and reinforced each other.

SHOUHARDO programming further acknowledged addressed the looming risks associated with flooding, riverbank erosion, and other hydro-climatological shocks and the constraints they pose for food security progress. Multiple sets of interventions were designed to manage these risks, including disaster risk management committees, disaster response strategies, and multiple trainings.

As with sequencing, the logic of ordering, as manifest in SHOUHARDO programming operates at multiple scales (intervention level and sector level) and is based upon a holistic, multi-dimensional approach to development change. The particular combinations of interventions are those expected, on one hand, to generate synergistic impacts that are mutually reinforced and, on the other hand, to address the anticipated constraints that characterize the complex realities of the region.

We present several programming insights on layering based on SHOUHARDO:

1. The effective layering of interventions in resilience programming must be guided by comprehensive on-the-ground understanding of the constraints the impede progress toward a specific development goal (such as women's empowerment or social inclusion). These constraints can be resource-based (not enough land, capital), technology-based (not enough information, inadequate skills), institution-based (inadequate markets) but also the lack of voice and participation for segments of the community. Layering strategies are best built upon a strong assessment of this range of constraints.
2. From a programming perspective, the SHOUHARDO example also indicates the need to determine where synergies and complementarities can be found in in the range of possible interventions. Multiple interventions are not necessarily complementary or synergistic, and such decisions should be grounded in an understanding of the local reality.
3. Layered packages of interventions will often be implemented by different types of stakeholders who may not be accustomed to collaboration and teamwork. One set of interventions involves a marketing firm, an input supplier, an elected official, and a NGO field staff. It is important that each implementer is aware of the quest for synergies and complementarities. Thus, effective coordination is important.
4. From the community level discussions, it seems that the logic of layering is not perceived by beneficiary groups in the community. From the community reports and focus group meetings, community residents, including informal leaders, are able to list the range of NGO activities in their communities, but do not articulate how these activities (interventions) are layered and complementary. For example, the "hardware" interventions (cash, assets, livelihood training) are readily associated with the NGO presence, but awareness-building interventions appear less prominent in local perceptions of the beneficiaries. They are not seen as part of a larger NGO layered package. This fact is likely due to the lack of effective participation of the community at early programming stages (see below). It would seem that effective community participation at early programming stages would improve the beneficial effects of layering (and sequencing).

Integration

Integration refers to the *intentional layering and sequencing of multisectoral interventions and the coordination of actors to address needs and prevent or reduce the drivers and effects of shocks and stresses that undermine long-term well-being*. While sequencing and layering obey a logic inherent in the ordering of interventions, integration shifts the focus to the coordination of stakeholders and implementers. In a complex program like SHOUHARDO, the call for integration occurs at multiple levels:

1. ***Internal Integration***: In multi-sectoral programs which include intervention sets in agriculture, nutrition, WASH, DRR, gender, advocacy, etc., the internal organization of the implementer is commonly divided into "teams," each usually clustered in the same space, staffed by individuals with a specific expertise, and each with its operational plan. There often exists the risk of ensiling these multiple components, so that one has little understanding of the other. It is necessary, as SHOUHARDO demonstrated, to build mechanisms of integration across teams in such a way that the holistic approach is maintained. This is frequently a difficult task.

2. ***Implementing Partner Integration***: Large complex programs engage multiple implementing partners. Early SHOUHARDO versions contracted dozens of NGOs to implement the project activities in different parts of the country. Successful integration at this level is required to assure that each implementing partner shares the vision of the program and has the required skill set to carry out project interventions with uniform effectiveness. Once again, this is a difficult task when so many individuals are involved at so many levels, and implementing partners bring variable levels of experience.

3. ***Integration of External Actors***: The third dimension of integration is the coordination of actors that the lie outside the direct control of project management yet whose participation is fundamentally critical to project goals. In the case of SHOUHARDO, such actors have included government counterparts at the Union Parishad and Upazilla levels, public service providers such as agricultural extensionists, public health specialists, etc., local police and law enforcement, marketing agents and associations, banks and financial institutions, private sector input enterprises, and journalists (advocacy). In the logic of the program, each of these actors has a role to play, usually cemented by formal contracts, MOUs, and other instruments of engagement. The challenge of integration is to propose a shared vision that all can adhere to. For example, SHOUHARDO has shown (and confirmed in the community reports) that to achieve women's empowerment and social inclusion, government institutional commitment to pro-poor policies and practices is a key condition.

4. ***Integration of Development Actors***: A complex project is implemented with a larger institutional context. For example, there are multiple NGOs operating independently in the study region, each with a specific agenda and program. In any given community several development actors overlap. Effective integration calls for coordination among these actors in order to achieve maximum efficiency at the community and higher administrative levels.

SLI Programming and Resilience

In the larger picture, this research focuses on resilience, that is, the capacity of communities and households to manage frequent risks and shocks. Resilience is a *systems* concept, and this research is designed to test the assertion that changes in slow-moving variables, such as cultural norms, values, and patterns of social interaction, are systems of factors that condition resilience. In recognizing the complexity of development change, the analysis of SLI in this study intends to inform a larger resilience question. Based on focus group outcomes, it can be said that the complex programming that designed SHOUHARDO, while purposively multi-dimensional, was not guided by any specific SLI formula. Nevertheless, the principles that underlie that SLI, such as the synergistic and complementary effects of multiple interventions, were major drivers of the programming logic. As this study has gathered empirical field data regarding the relationship between change in these power variables and resilience outcomes, the derived implications for resilience-centered SLI programming are as follows:

1. There are no SLI rules, but there is a SLI logic. From discussions with SHOUHARDO (and other NGO) programming staff, there is an underlying sequential logic of intervention roll-outs that enhances the likelihood of success. In SHOUHARDO, for example, there were purposive interventions designed to "prepare the terrain" for sequential set of interventions. The introduction of an institutional framework through which program interventions can be channeled, like the VDC and other beneficiary groups, constitutes a necessary first step for rolling out other interventions. It helps create common interests and identities. Subsequent to this, capacity building interventions were considered precursor activities to other interventions, such as asset distributions, that brought technical support like cash transfer to set up the business that were designed to meet project objectives. The SLI finding is that intended types of change occur in a step-wise fashion and must be accommodated in complex programming.

2. Synergy among interventions is a fundamental programming principle in layering of interventions. The evidence from SHOUHARDO provides multiple examples. While programming staff disagreed over which approach to women's empowerment—awareness building or expanding livelihood options—should be addressed in what specific order, there is a consensus that the two types of interventions together create a synergistic effect toward the intended goal. The SLI finding is that the existence of underlying synergies is the core directive for layered interventions that produce interactive effects, so that the "whole becomes greater than the sum of parts." The insight is that the programming of layered interventions requires a dynamic understanding of how change works within a community.

3. Complex programming requires a systems approach—and integration is a core component. While a complex program manages many interventions, sectors, and development actors simultaneously, and as the defining characteristic of any system, if one component part is flawed or missing, the entire system (and its intended purpose) is threatened. Based on the community research, sequencing and layering refer primarily to interventions that integrated different sectors; but in complex programming, integration refers to the complementary roles of different development actors, including government, private sector interlocutors, financial institutions, and other NGOs present in the same physical space. The finding here is that complex programming for resilience outcomes must be multistranded and requires the integrated participation of many actors, including those close to the targeted communities and those far away.

4. Community engagement is critical for successful SLI programming. In focus groups with community representatives, corroborated by individual conversations in the community, it was clear that local residents do not perceive the multi-dimensional systems approach that has informed the NGO presence in their communities. They perceive development activities as piecemeal and have difficulty articulating how these interventions fit together or why these and not others. That is because community members do not adequately participate in the design of the SLI logic, and they do not assume ownership of this dynamic of change. Creating a shared vision and identity appears central goals for the VDC and other forms of building community governance. The fact that community members do not see the "sum of the parts" suggests that opportunities to create more tailored SLI designs have been missed. This undermines a core tenet of SLI, which is that it should be built on detailed knowledge of local realities and with the active and informed participation of the residents.

5. SLI requires internal and external stakeholder engagement and buy-in. Effective integration calls for coordination among diverse implementers and among different teams within an implementing organization in order to improve efficiency and efficacy at the community and higher administrative levels. Successful integration at these levels is to assure that implementing units express a vision that allows for complementarity, if not a shared vision. Importantly, the main risk to the complex structure of resilience programming is that goals within sub-implementer units (e.g., a WASH team or a DRR team) supersede those of the whole project. At a minimum, disjunctive approaches will suppress synergistic benefits, while in the worst-case situations, disjunction will undermine the project.

Conclusions on the Dynamics of Change and Resilience

The major conclusions of this study are summarized as follows:

Conclusion 1. Change in power relationships is most evident in increased agency:

Within any given community, the vectors of social differentiation are often space-borne. For example, in one para, there is religious homogeneity (Hindu para) or in another, occupational homogeneity (fishers para). The elite families/lineages tend to live together in a single neighborhood, usually in space close to agricultural lands which they cultivate and relatively less exposed to extreme events. In these complex systems, power is not evenly distributed, but rather concentrated in one para or another. Differential power is manifest in many ways, but mostly in control over resources, access to government services, and community participation and decision-making (i.e., *voice*).

The analysis has distinguished between power over and power to. Over the last two decades or so, it is apparent from the field evidence that significant changes in both forms of power have occurred. Power over is the core of traditional power relations and is manifest in control over land and fishing rights, in participation on the local "*salish*", the traditional village council, and in occupying the role of "*diwani*", traditional local leader (not elected) or the formal "*Parishad member*" (elected). People from the low status paras would unlikely be considered for any of these public roles. With regard to intrahousehold relationships, power over still remains with the male adults, at least publicly and formally, and women are unlikely to be seen as major decision-makers in their homes. These relationships of power over show some evidence of change but continue to be dominant.

On the other hand, the study has shown significant change in power to do, or what might be called "agency." In the case of the marginalized population, this change is manifest in the trend to mobilize groups that can negotiate favorable positions with regards to asset access and also an enhanced access to government public services and the safety net programs. Change in agency is prominent in women as their status and inclusion have demonstrably increased. The main signs of change in power to do for women lies in a greater level of economic independence, unconstrained mobility to markets, health clinics, participation in community governance activities and public services, and greater engagement in household decision-making.

Conclusion 2. The sustained NGO presence in these communities has functioned as a major catalyst of change:

While it is difficult to directly attribute a specific change to a specific NGO project or intervention, the impact of NGOs has been enormous. The almost constant presence of change agents in these communities over the last 20 years, the formation of village development communities, the EKATA women's groups, the VSLAs, and direct negotiation with local authorities have nurtured the environment for change. Both women and men cite examples of accessing VSLA resources to solve a problem, villagers point with admiration to floodproofed houses owned by families where women have spent time in the garment industry, and it is obvious that women feel more comfortable to express themselves in village meetings. At the same time there is a more active presence of elected officials in the community and a narrative of responsibility to address the needs of the poor. Community residents cite other "extraneous" factors, such as the universal primary education, improved public transportation, and widespread access to mobile phones as providing marginalized residents with wider options and greater control over their affairs.

Conclusion 3. Shifts towards more equitable power relations enhance resilience capacities:

As women and marginalized groups have seen significant increases in the *power to* (and in some cases, *power over*), the ability to manage risks has broadened in terms of available resilience strategies. The study documents three interrelated ways in which enhanced resilience has been resulted from the shifts in power relations: First, the traditionally less powerful have experienced **increased voice and visibility** through group identity and collective action. This has opened avenues to the exercise of rights, particularly in the domain of social protection and access to public goods. Second, **increased freedom of movement has broadened the range of livelihood options** significantly among women giving them the economic wherewithal to prepare for, manage, and recover from risks. Finally, **increased education, skill-building, and information flows** for both men and women have linked women and the poor to the outside world, especially to labor markets, but also to improved technologies and stronger webs of social capital.

Conclusion 4. Expanding resilience assessments to include freedom of choice as a part of agency can improve monitoring, evaluation, and learning (MEL):

Our study has reinforced the position sanctioned in the literature that resilience must be understood as a complex system of multiple components. Therefore, programming for resilience outcomes must reflect that complexity. The reigning approach to assessing resilience might be called a "capacities" approach in which the measurement focuses on the resources commanded by individual households or communities. It draws on Amartya Sen's work to recognize the importance of both material and nonmaterial components of resilience. Thus, multiple variables such as financial and social capitals are combined with such behavioral strategies as income diversification and coping behaviors to generate a unique one-time resilience value. The values can then be compared across groups or different points in time to show spatial and temporal variability in resilience outcomes. However, traditional resilience approaches do not explicitly account for power nor are the avenues and patterns of access to these measured variables systematically queried. From the insights of this study, we propose a complementary approach to the current framework by amending "agency" to focus a resilience assessment on what people have the ability to choose to do[12] in addition to what types of capacities that possess. This more expansive assessment would account for how much people have the ability to do what they want to do. Such a view necessarily overlaps with how power manifests in social interactions and how it relates to local values and norms, with the latter explicitly aligning with the development focus on "localization." The need for a complimentary approach is reflected in calls by scholars for greater innovation in the measurement of resilience (Jones et al. 2021).

The specific advantages to MEL from including agency are as follows:

1. It focuses MEL on understanding what people do, what they can and cannot do, as a complement to what resources they possess. A focus on the ability of people to control their lives directly reveals the driving forces for many of the resilience strategies the development community has deemed important (see Figures 4 and 5). As an example, choosing to fast is a deprivation of food that reflects a choice, whereas the inability to eat brought on by a lack of resources is a similar deprivation but is categorically different.

12 This perspective takes us closer to the "capacities approach" developed by Amartya Sen (1989), which casts human life as a set of "doings and beings" and it relates the evaluation of the quality of life to the assessment of the capability to do.

2. The possession and dispossession of resources can vary in daily life but particularly in the aftermath of shocks. A common negative coping strategy, for example, is for households to sell assets like a cow or a goat to deal with the duress of a shock. Resources are thus ephemeral and their measurement provide a snapshot in time but do not reflect the underlying levers that allow for their accumulation or expenditure to moderate impacts. Conversely, "power" that enables and constrains choice is more durable, subject to lower-frequency change. Such durability has implications for monitoring, likely reducing the frequency of data collection.
3. Beyond the benefits of understanding the direct change agents, a focus on capabilities avoids assumptions about what constitutes resilience. As one example, asking about the ability of people to engage in new income generating sources is revealing in a separate way than characterizing the number of activities in which they generate income. The latter is assumed to be a positive attribute if people possess a diversified income portfolio. And yet, the choice to engage only in farming while other options are open would be seen as being less resilient. In essence, current approaches to measuring resilience either predefine resilience—using, for example, a food security metric—or defines resilience as being an emergent property that results from possessing (more) capacities: people are more resilience if they have greater assets and/or resources, for example.
4. As a policy evaluation tool, a focus on agency evaluates the extent to which interventions alter the effective opportunities people have to lead lives that they value.
5. Qualitative approaches are often viewed as important for contextualizing resilience. A capabilities approach can give direction and a common framework for such studies.

This work has brought together three important ideas: the recognition that material and non-material capacities are central to human development; a political framework that provides a way to observe power at the individual, household, community, and institutional levels; and resilience thinking that has identified capacities that help people overcome shocks and stresses. Such a convergence can help programs and projects explicitly account for conventionally overlooked determinants of resilience. This is a starting point, and more empirical and conceptual work is needed to help streamline power analysis into development and resilience programming.

Conclusion 5. CBE is valuable as a programming tool:

Based on our research we conclude that the effective programming based on multiple interventions requires a dynamic, iterative process that incorporates the complexities of local realities, particularly the exercise of power. CBE uses an empirical community-embedded approach that explores the power dynamics that determine resilience outcomes. Our central argument is that context matters and the process to capture the importance of context requires a rethinking of common research and assessment approaches to designing development programs. Within traditional approaches to development programming, community assessments are the basis for constructing theories of change and identifying activities and target groups. Rather than the common assessment methodologies of a few focus groups, household survey, or key informant interviews, the embedding the research team within the community for a short but intense and sustained period reveals the often-covert community dynamics that influence agency and control over resources. Moreover, it works to promote a partnership with community residents and create shared ownership of the project. In this collective environment, the complex combinations of interventions reflect a shared version of the local reality. Annex A summarizes the results of CARE/Bangladesh programming exercise to identify the entry points for CBE in the programming cycle.

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ANNEX A
Applications of CBE in the Development Programming Cycle

In the section below we share the results of an extended brainstorming at CARE/Bangladesh during which the potential of CBE was assessed at different phases of the programming cycle to improve program implementation, quality and eventually overall program impacts.

Participants at the meeting believe that CBE can be used in practically all phases of a development project cycle, including project design, project implementation, monitoring and evaluation, and final evaluation. The following sections address how CBE can be used in different phases of the project cycle.

Project Design and Co-Creation Process

Project design is the primary stage of a project cycle where different project-related issues i.e., the nature of the problem, stakeholders, types of interventions and project implementation are designed. How CBE can be applied in project design is shared below:

1. **Aligning with secondary data review:**
   While designing a project to solve a specific problem, the program designers primarily discuss the existing problems, their nature, reasons for that problem and ways to solve the problem. In doing so, the existing literature is reviewed so that the primary nature of the problem can be captured. *For example*, to eradicate child marriage in the char region, project designers need to review research articles, and reports on child marriage, so that reasons and impacts of child marriage and way to eradicate it can be known.

2. **Context-specific problem analysis and identification of possible solutions:**
   After getting an idea about the problem, the program designers dig for more Information about the problem. Especially, the nature of the problem in a specific context is sought in this stage. In doing so, the program designers focus on the field, i.e., they collect information from the different fields and analyze them. It is learnt from the meeting that CBE can be applied in context-specific problem analysis and identification of possible solutions since the nature of the problem in the different contexts and context-based solutions by consulting with the community members can be best known by doing CBE. *For example*, by applying CBE in context-specific problem analysis and identification of possible solutions, it can be understood that the reasons for child marriage are different, and these reasons may vary based on the context of communities. The CBE researchers found that the main reasons for child marriage in Manik Khila and Durlovpur villages of deep haor are lack of opportunities in secondary education, transportation, high population growth and poverty. On the other hand, child marriage is occurring in Pashchim Rajibpur village of remote char, because of traditional practices, poverty and river erosion. For this reason, the way to solve the child marriage problem in two communities should be different.

3. **Ensuring participation of community people from the very beginning maximizes accountability and ownership. This is a critical element to facilitate localization:**
   In CBE, every participant is treated with the same importance and can express his or her opinion, which assists in understanding the problem from everyone's point of view. Researchers can get feedback from the community about their work and have the correct information. By doing CBE, the researchers can discuss how the existing problem can be solved, and thus the program designers can know what kind of solution the community wants or how the problem can be solved in the context of the community as a human- centered design process. This will increase

the community's accountability and ownership for the project and make them active actors and work closely with project implementation team to bring changes and monitor progress.

4. **Understanding multiple and complex dimensions of an issue and their interrelationships:**
   Since it is possible to understand the multiple dimensions of a problem by doing CBE, the knowledge on how one problem is related to other problems can be best learnt, which can then assist designing effective intervention and strategies to create a long-lasting deeper impact and assure the sustainable development of a community. *For example*, it is revealed by doing CBE that if there is a positive change in gender and power relations, it assists a household/community to have better resilience capabilities. The women of Manik Khila village received training from different NGOs and govt agencies, have mobilities to different govt offices, are engaged in different income-generating activities and have greater roles in households, for which, they are now better capable of playing important roles in disaster risk mitigation.

5. **CBE helps to understand the unique features of a particular community (all communities are heterogeneous). It helps packaging interventions as per the need of different groups and communities:**
   In a traditional design process, communities are considered homogeneous and interventions are designed accordingly. Since all the communities are socially differentiated and each para in a village is different from one another, the same kind of intervention for all communities and all the paras of a village may not be relevant and there might not bring an effective result. That's why different packages of interventions for different paras and communities are expected, which is realized only by doing CBE. *For example*, we have learnt from CBE that the two communities of Rajar Haat Upazila (Bara Dargah and Mushrot Nakhenda) are situated in the same geographic location. However, the livelihood and disaster vulnerability of these communities are not the same. In this situation, the same types of intervention may not succeed since the characteristics of a community is different than the other community despite situated in the same geographic location. That's why different kinds of interventions are required even for the same types of problems.

6. **CBE addresses diversity and therefore is packaging interventions based on diverse needs:**
   There are different actors in a community based on livelihoods, power relations, education, land ownership, social exclusion, vulnerability and so on, and these actors' needs are also different from one another. The diversity among the social actors suggests diversified intervention packages. *For example*, In Purba Bepari Para village of char Rajibpur Upazila, it is found that in spite of residing in the same location, Sandhar Para people are more excluded than people of Adorsho gram and Moddho Beparipara in terms of power relations, safety nets and education. They also have different occupations (making and repairing umbrellas) and are more vulnerable because residing on the bank of the Jinziram river. CBE will suggest that people of all the paras of Purba Bepari Para do not need the same kinds of interventions because of the difference in their vulnerability and problems.

7. **CBE helps to understand community experiences on projects/interventions failures and successes and support building interventions and complementarity and integration with the local government institutions (UP) and actors (teacher, imam etc.):**
   In the traditional project design process, we analyze the problem and the solution but we rarely reflect on what has worked and what didn't. CBE fosters a culture of learning from communities and the people that we serve. It is known by doing CBE what kind of interventions have been implemented to solve different social problems and what the impacts of these interventions on the community are. So, what further interventions can be implemented based on the previous interventions of the different stakeholders to meet the same problem can be best analyzed by doing CBE. *For example*, it was known by doing CBE that the Youth group of Manik Khila village received computer training from the SHOUHARDO project of CARE Bangladesh; however, there have not been any initiatives that could help them to engage in related activities. If there is taken any kind of intervention in future, the program designers can learn from the previous interventions by doing CBE and generate better outcomes by developing integration among the community youth group and other stakeholders. (i.e., private computer service centers.). On the other hand, SHOUHARDO project of CARE Bangladesh taught the women of Manik Khila

village how to cultivate vegetables in homesteads. Later on, CNRS (a local NGO of Bangladesh) also had an intervention in this issue differently (CNRS gave smartphones to women, that had agriculture-related apps). As a result, most of the women are producing vegetables and getting more services through this smartphone, which enabled them to fulfil their nutritional needs as well as to gain economic profit.

8. **CBE itself a powerful empowering process: it helps communities and people to reflect on their issues and how things can be improved, monitored, and adjusted to create effective programming.**

Project Implementation

Project implementation is the second stage of the project cycle. By discussing among IDEAL team members, it was known that CBE can be applied in project implementation. How to use CBE in project implementation is as follows:

1. **The unit of analysis is unique. It helps to understand social landscape of a given community and interaction between different social actors:**
   While doing CBE, the researchers drew a social landscape map by discussing it with community members. In the same way, if a map is drawn in association with the community members before implementing a program, the program designers can know the different kinds of stakeholders within the community and the interactions among them. Based on the analysis, the program designers can identify what kinds of intervention to implement with what types of actors.

2. **CBE can build a trust relationship that can goes beyond rapport building:**
   CBE researchers have a deep relationship with community members because they explicitly clarify the reasons for their community visits, explain the research, involve different actors in their research, do several community visits, and meet with each actor multiple times. Their informal discussions with actors and conversations on many issues also aid them in developing loyal ties with the community, which do not end when researchers leave the community. For example, while visiting the community for the second time, the community members were found to be happy to see the CBE researchers and had discussion with CBE researchers spontaneously and asked how the research work is going on.

3. **CBE helps to identify critical actors to work with and support specific activities (identifying gatekeepers and positive deviants):**
   Since the CBE researcher works with different kinds of actors in a village, they can best know the actors who are supportive of the project and who are not, or who are playing the role of gatekeepers. The project designers can have a plan regarding how these two kinds of actors can be better managed to ensure community development and project goal. *For example*, In Manik Khila village, the local representative (UP member) tried to influence the CBE researchers by imposing different actors to interview. He also made an attempt to restrict conversation with a specific *Gusthi* members. So, in future projects, the project designers can have different kinds of plans to manage this problem in a better way.

4. **CBE can assist to determine SLI of any project interventions effectively:**
   Integration: CBE helps to integrate different ongoing programs and NGOs during implementation. Within the project, CBE also helps to integrate different sector-wise activities within projects.

5. **CBE allows us to paint a complete picture of a community where we can cover different thematic areas of inquiry such as nutrition, gender, wash and so on.**

6. **According to community people's suitability and need CBE can design activities where community people become engaged.**

7. **CBE helps to easily understand program TOC (by the participants and different community actors).**

8. **CBE helps to understand the power dynamics and social norms of a community therefore allowing community and facilitators to take better risk mitigation strategies and responses.**

9. **CBE helps us to go beyond biases and helps appropriately target participants and interventions and instigate new paradigms of conflicts over development interventions.**

10. **CBE helps to identify the right community volunteers who could be inclusive, transparent and trustworthy in communities. The role of community facilitators is central to catalyzing community change:**
    For example, the CBE village volunteers of Mushrot Nakhenda and Purba Bepari Para village were not transparent and played the role of gatekeepers. Because of this, the researchers struggled to get information, and in order to get quality information, these CBE volunteers were avoided as much as possible. On the other hand, the CBE volunteers of Bara Dargah village assisted in collecting information and were very supportive. So, while implementing a program, supportive, transparent, trustworthy, and inclusive facilitators can be selected for better output of the project.

11. **CBE helps to better identify inclusive groups and building micro level institutions:**
    By doing CBE, it can be known which local/micro-level institutions worked well or not. *For example*, in the char region, the partner organization did not implement the project activities properly. As a result, community people were not able to say what works the partner NGOs did and what the impacts of these works were. On the other hand, by doing CBE in Bara Dargah, Purba Bepari Para, and Horipad Nagar village, it was found that the VDC group (created by the SHOUHARDO project of CARE Bangladesh) in these villages were not formed properly, and the VDC members were unable to say what their roles were, or what the activities of the project were.

Monitoring and Evaluation

In the stage of monitoring and evaluation, a project is evaluated if the project is producing the expected and fruitful outcomes, or if the process of implementation was right. After the evaluation, the existing project is revised based on the findings.

1. **CBE strongly establishes a foundation for Collaborating, Learning, and Adapting (CLA):**
   During the implementation of a program, monitoring and evaluation is required to know whether the programs are performed in the right way or what kinds of challenges remain, or which goals of the project have been achieved. While doing CBE, the researchers worked together and argued with each other while developing research tools and designing the research and learned from each other. The researchers also adapted to the CBE process.

2. **CBE can help us to identify substantial/appropriate development monitoring indicators and milestones:**
   After doing CBE, the researchers found gaps in their findings and revisited the communities to collect the gaps information. The researchers also collected evidence of different kinds of changes that enriched the research report and learning.

3. **Establishing and understanding the linkages between/among different variables like power over and power to (relationships of outcomes vs. outputs, which ultimately sharpen our analysis and redefine strategies).**

ANNEX B

Risk Management Actions Identified in Eight Communities

Risk management actions observed in each of the eight communities in the haor (1-4) and char (5-8) communities. (**1**=Manik Khila; **2**=Durlovpur; **3**=Horipad Nagar; **4**=Notun Krishno Nagar; **5**=Purbo Bepari; **6**=Mushrot Nakhenda; **7**=Bara Dargah; **8**=West Rajibpur)

Observed Actions	Total	Haor				Char			
		1	2	3	4	5	6	7	8
Homestead floodproofing	5	x	x			x	x		x
Participate in training and education. Receive education and training from NGOs on, among others, disaster risk management and income-generating skills like tailoring and cattle rearing.	4	x	x			x			x
Construct barriers to contain flooding	3		x				x	x	
Use of agricultural machines. Mechanical harvester/thresher machines quicken the time to get the crop off; irrigation machines allow the cultivation of a winter crop of boro paddy rice	3		x	x				x	
Diversify income-earning activities in household.	5		x			x	x	x	x
Specifically, women engage in income earning activities. Women seek employment in activities such as tailoring, day labor, garment factory work, growing vegetables and rearing cattle and poultry	5	x	x	x	x	x			
Draw on cash from savings group.	2					x			x
Diversify crop varieties. Use rice paddy varieties and flood tolerant seeds to enable harvesting rice before normal onset of heavy rains.	7	x	x	x	x	x	x		x
Store household assets in protected spaces. Store paddy, rice, dry food, medicine, dry wood (activity done predominantly by women)	8	x	x	x	x	x	x	x	x
Protect household assets. Protect rice, furniture, clothes, and livestock; elevate beds and household items in home to protect against water damage.	7	x	x	x	x	x		x	x
Accumulate savings. Save money, including among women, to draw on after a disaster.	7	x	x	x	x		x	x	x
Make portable clay stoves to use during floods. Activity is done predominantly by women.	4	x	x			x			x
Share information and warnings before and during disasters. Communicate via mobile phones and megaphones; call authorities to get information.	5	x	x		x	x			x
Sell livestock to address immediate needs.	6	x		x	x	x	x	x	
Evacuate vulnerable households. Transport most vulnerable populations to protected shelters like hospitals, schools, and elevated houses.	7	x	x	x	x	x		x	x
Repair household and community infrastructure. After the flood, repair homes, latrines, and roads.	7	x	x	x	x		x	x	x
Take out loans from local moneylenders	6	x	x	x	x		x		x
Seasonal migration. Seasonally agricultural laborers migrate to different districts (Dhaka, Comilla); women now migrate seasonally	8	x	x	x	x	x	x	x	x