

Reaching Resilience

CARE Bangladesh Strategy to
Disaster Risk Reduction and
Climate Change Adaptation



Reaching Resilience

CARE Bangladesh Strategy to Disaster
Risk Reduction and Climate Change Adaptation





Reaching Resilience

CARE Bangladesh Strategy to Disaster Risk Reduction and Climate Change Adaptation

2016

All rights reserved. No part of this publication may be reprinted or reproduced without the written permission of CARE Bangladesh.

©CARE Bangladesh

RAOWA Complex (Level: 7-8), VIP Road, Mohakhali, Dhaka 1206, Bangladesh

Office: + (880)-2-9889009, Fax: +880-2-9118347

Email: bgdinfo@care.org

www.carebangladesh.org

Author Kevin Henry

Key contributors Arshad Muhammad
Mehrul Islam
Jesmin B. Hossain
Palash Mondal

Photo credits CARE Bangladesh

Printing by Nahid Printing & Design Studio

List of Acronyms

BCCASP	Bangladesh Climate Change Strategy and Action Plan
CBA	Community Based Adaptation
CC	Climate Change
ccGAP	Climate Change Gender Action Plan
CVCA	Climate Vulnerability and Capacity Assessment
DOCs	Domains of Change
DRR	Disaster Risk Reduction
EKATA	Empowerment, Knowledge and Transformative Action
GBM	Ganges-Brahmaputra-Meghna
GCF	Green Climate Fund
GOB	Government of Bangladesh
HH	Household
NAP	National Adaptation Plan
NAPA	National Adaptation Programme of Action
RVCC project	Reducing Vulnerability to Climate Change project
SFYP	Seventh Five Year Plan
ToC	Theory of Change
VSLA	Village Savings and Loan Association

Foreword

Bangladesh is a country that is no stranger to natural disasters and Bangladeshis are known world-wide for their resilience however being truly resilient to disasters is not automatic and we need to approach it thoughtfully and consistently across all that we do as otherwise the gains made by people can be quickly eroded and place them even further behind.

The purpose of this strategy is to set the course of actions for CARE Bangladesh to ensure that its work contributes to building the resilience of its impact populations' shocks and stresses. While we considered various definitions, we finally settled on the following: "Resilience is the capacity of communities, local and central government, and systems to absorb, adapt to, and recover from natural and manmade shocks and stresses and transform in ways that reduce vulnerability and facilitate environmentally sustainable growth, particularly for poor households, women and girls."

CARE Bangladesh's approach to resilience-building is comprehensive, encompassing interventions to build both the human/social capital and asset base of its impact populations (marginalized women, extreme rural poor, and marginalized urban poor), while promoting more diverse and resilient livelihood strategies and building capacity to manage natural disasters.

This strategy provides a framework to guide the integration process and clearly lays out the next steps for its implementation. It is based on a Theory of Change which composed of three elements i) improved ability of communities and systems to absorb shocks and stresses, ii) enhanced ability of community to longer term risks (and shocks) and iii) responsive and accountable governance systems.

CARE Bangladesh programs must be guided by this document which is to be used for design and implementation. This strategy is a living document and a step toward improving resilience of the communities in Bangladesh. There will be a systematic review mechanism to incorporate the changing contexts.

We thank Mr. Kevin Henry for helping us to develop the strategy, and the Program Evidence, Advocacy, Research & Learning (PEARL) team for leading the process.

I am also thankful to the communities and CARE staff who actively contributed in developing this strategy.

Jamie Terzi

Country Director

CARE Bangladesh



Table of Contents

1	Executive Summary
3	Introduction
5	Weather and Climate-Related Risks for the Urban and Rural Poor in Bangladesh
9	Government of Bangladesh Disaster and Climate Change Strategies and Plans
12	Resilience Conceptual Frameworks
14	CARE Bangladesh Approach to Resilience-Building
19	Defining CARE Bangladesh's Resilience Niche Based on its Long-Term Programs
21	Strategy Implementation and Next Steps
23	Conclusion
24	Appendix 1: Overview of CARE Bangladesh Long-term Programs
25	Appendix 2: Climate-Related Hazards in Coastal, Northern, and Urban Bangladesh
27	Appendix 3: Illustrative Matrix of Interventions by Strategy Pillar in Absorb, Adapt and Transform Framework



Executive Summary

This strategy lays out CARE Bangladesh's rationale for and approach to the full integration of resilience-building into its long-term programs focused on the rural extreme poor, marginalized urban poor, and women and girls (rural and urban) whose rights and entitlements are denied by institutionalized gender inequality.

Section I (Introduction) briefly explains the rationale for the development of this strategy and summarizes the logic and analysis underlying the resilience Theory of Change (ToC) developed. This section also situates this strategy in the context of the global CARE 2020 strategy, which highlights resilience-building as a key approach to addressing the underlying causes of poverty and achieving priority humanitarian and development outcomes.

Section II (Weather and Climate-Related Risks) clearly documents the high level and diverse nature of weather-related disaster risks in Bangladesh and the probability that multiple risk factors will be exacerbated under climate change. For CARE Bangladesh, a clear understanding of climate-related risks, both at the national level and in each of its focus geographies, is an essential input into the development of this strategy to support its impact populations in increasing their resilience to shocks and stresses. All of CARE Bangladesh's zones of intervention are characterized by high levels of weather-related risk, although risks are most diverse on the southwest coast. Overall, the primary risks are related to the combination of extreme weather events (heavy rainfall events, tropical cyclones) and sea level rise. Although disaster and climate change risks are very high in the Bangladesh context, the reader is reminded that Bangladesh is not without assets and comparative advantages that should be leveraged as part of adaptation efforts. Taking advantage of the opportunities presented by the Bangladesh context and then following through to build on its history of innovative work should be hallmarks of CARE Bangladesh's resilience strategy.

Section III (Government Plans and Strategies) summarizes the current strategic framework and policy context for resilience-related work. Bangladesh has a well-developed strategic framework, including a National Disaster Management Plan, a Climate Change Strategy and Action Plan, and a recently completed Seventh Five-Year Plan. Such plans, however, have yet to be fully implemented due to a range of factors, including capacity gaps, financing constraints, and challenges of inter-institutional coordination. The updating of the Climate Change strategy and the development of a National Adaptation Plan offer opportunities to address these shortcomings. In addition to the above-described core resilience planning processes, the Government of Bangladesh also developed in 2013 a Climate Change Gender Action Plan (ccGAP), which is directly relevant to CARE Bangladesh's long-term program goals. The Seventh Five Year Plan also offers the opportunity to implement and resource this Climate Change Gender Action Plan.



Section IV (Resilience Conceptual Frameworks) provides a firm grounding for CARE Bangladesh's resilience strategy in the broader thinking on resilience as it has evolved over the past decade. Several leading frameworks are drawn upon to provide the conceptual foundation for CARE Bangladesh's approach to resilience-building.

Section V (CARE Bangladesh's Approach) identifies the building blocks and assembles a CARE Bangladesh's resilience Theory of Change (ToC). First, resilience is given a specific definition in the CARE Bangladesh context. Then five pillars of resilience-building for CARE's impact populations are identified: human, social, and political capital; asset-building; resilient livelihoods; disaster risk reduction; and inclusive governance. Next, the concepts of absorptive, adaptive and transformative capacity are defined and operationalized for CARE Bangladesh. Finally, all these elements are combined in an explicit theory of change (ToC) to guide CARE Bangladesh's resilience-building work.

Section VI (CARE Bangladesh's Resilience Niche) then shows how its resilience theory of change can be fully integrated into its long-term programs to define specific niches for CARE to develop in the large and complex resilience arena in Bangladesh. CARE Bangladesh's niche is first grounded in

its focus on women's empowerment (Gender and Resilience) and working with the poorest and most marginalized rural and urban households. These program foci are then translated into two specific resilience niches grounded in CARE's three long-term programs and their inter-relationships. The first proposed niche is framed in terms of "*Empowering Rural Women Through Climate-Smart Livelihoods*." The second niche is defined in terms of "*Promoting Urban Resilience and Adaptive Migration*."

Section VII (Strategy Implementation and Next Steps) then spells out the required next steps in five areas to fully implement this resilience strategy. These include: 1) Integration of Resilience into CARE Bangladesh's Long-Term Programs and Other Strategies; 2) Capacity Gap Analysis; 3) Partnership Mapping; 4) Impact Measurement and Learning; and 5) Donor Landscaping and Outreach.

Section VIII (Conclusion) reiterates CARE Bangladesh's commitment to the implementation of a comprehensive strategy to build the resilience of its impact populations as a necessary condition for achieving its long-term poverty eradication and social justice goals.



I. Introduction

“Bangladesh is one of the most climate vulnerable countries in the world and will become even more so as a result of climate change. In coming years, it is predicted that there will be increasingly frequent and severe floods, tropical cyclones, storm surges, and droughts, which will disrupt the life of the nation and the economy. In the worst case scenario, unless existing coastal polders are strengthened and new ones built, sea level rise could result in the displacement of millions of people- ‘environmental refugees’- from coastal regions, and have huge adverse impacts on the livelihoods and long-term health of a large proportion of the population.”

Bangladesh Climate Change Strategy and Action Plan, 2009

Bangladesh is among the countries most exposed to natural hazards and most vulnerable to climate change impacts. CARE Bangladesh thus believes that its work with the rural extreme poor, marginalized urban poor, and women denied their rights and entitlements due to institutionalized gender equality, will only bear fruit if the resilience of those impact populations to disasters and climate change is dramatically enhanced. In recognition of this fact, CARE Bangladesh has developed this resilience strategy, the purpose of which is not to serve as a separate, stand-alone strategy, but rather to enable the full integration of resilience thinking and interventions into its long-term programs (rural extreme poor, women’s empowerment, marginalized urban poor) and its work in priority geographies, including the coastal zone, northern *char* lands, *Haor* region, and emerging cities in the Dhaka metropolitan area/central Bangladesh.

Subsequent sections of this document build a conceptual framework and theory of change (ToC) for the integration of resilience-building into all current and future program initiatives. The context for this strategy is laid by analyzing the latest scientific information on the country’s disaster and climate change risk profile, as well as the plans and strategies developed by the Government of Bangladesh in response to those risks. CARE Bangladesh’s resilience strategy is then fully grounded in the larger debate on definitions and conceptual frameworks of resilience, which point to five pillars of intervention at the heart of resilience-building: human, social and political capital; asset-building; diverse, sustainable livelihoods; disaster risk reduction; and good governance. From there, a definition of resilience is established for CARE Bangladesh and a theory of change is built, encompassing elements of building the capacity of poor communities to absorb, adapt, and transform in response to external shocks and stresses. This resilience



theory of change is then fully integrated into CARE's existing framework of long-term programs to define its specific niche(s) in the larger resilience landscape in Bangladesh.

"In a context of increased unpredictability from climate change, disasters and conflict, CARE strengthens poor people's capacity to absorb and adapt to shocks, manage growing risks, address underlying causes of vulnerability, and transform their lives in response to new hazards and opportunities. A focus on resilience enables CARE to better integrate its humanitarian, disaster risk reduction, social protection, climate change adaptation, natural resources management, and other development actions. When communities are resilient the chances of moving out of poverty in the face of worsening shocks and an uncertain climate future are greatly enhanced."

CARE 2020 Program Strategy

Finally, while this document constitutes CARE Bangladesh's resilience strategy, it is important to point out that it is highly aligned with the global CARE 2020 program strategy, which identifies resilience, along with gender equality and inclusive governance, as a key cross-cutting strategy for supporting 150 million people from the most marginalized and vulnerable communities to overcome poverty and social injustice by 2020. Program outcomes in the global CARE 2020 strategy to which resilience-building will contribute are in the areas of: humanitarian assistance; food and nutrition security; women's economic empowerment; and women's rights to sexual and reproductive health and a life free of violence.



II. Weather and Climate-Related Risks for the Urban and Rural Poor in Bangladesh¹

As noted in Bangladesh's National Plan for Disaster Management, the country is vulnerable to a wide range of natural (meteorological and geo-physical) and man-made disasters. By virtue of its location, Bangladesh is particularly vulnerable to a wide range of natural hazards. The dominant features of the country's location and topography that drive its exposure to weather-related risks are: its location in the delta of the Ganges-Brahmaputra-Meghna (GBM) river system; its position on the shallow northern Bay of Bengal, which "funnels" cyclones from the south; and the fact that "about 50% of the country is within 6-7 meters of mean sea level."² Other features of the country that contribute to high vulnerability, particularly to river and coastal flooding, include: a vast network of rivers and channels; an enormous discharge of water heavily laden with sediments; a large number of islands in between channels; and strong tidal and wind action.³ Although the starting point for the vulnerability assessment underlying CARE's resilience strategy is weather-related risks in Bangladesh that are likely to be exacerbated by climate change, it is important to note that poverty, inequality and weak governance also heighten the risk of other disasters, including fires and infrastructure collapse in Dhaka and other rapidly growing cities. Another dimension of Bangladesh's vulnerability worth highlighting is geo-political in nature, which is determined by Bangladesh's location as a lower riparian state, largely at the mercy of larger and more powerful upper riparian states in the Ganges-Brahmaputra-Meghna basin, including India and China.

Given the nature and multiplicity of the weather-related natural hazards Bangladesh faces, it is consistently ranked among those countries most vulnerable to climate change.⁴ So, what does climate science tell us about the likely progress of climate change in the 21st century and its impacts on Bangladesh?

¹ For a more thorough description of weather- and climate-related risks in Bangladesh, refer to the more detailed background paper prepared by the consultant, entitled: "A Synthesis of the Current State of Knowledge on Climate-Related Disaster Risk in Bangladesh."

² National Plan for Disaster Management, 2010-2015, Disaster Management Bureau, Government of the People's Republic of Bangladesh, April 2010.

³ Ibid.

⁴ One such ranking is that done by the risk analytic firm Maplecroft, whose 2014 ranking put Bangladesh at the top of its list of countries facing "extreme risk." This same analysis identified Dhaka, along with Mumbai, as the world's major cities "most at risk of being impacted by climate change." See: <https://maplecroft.com/portfolio/new-analysis/2013/10/30/31-global-economic-output-forecast-face-high-or-extreme-climate-change-risks-2025-maplecroft-risk-atlas/>

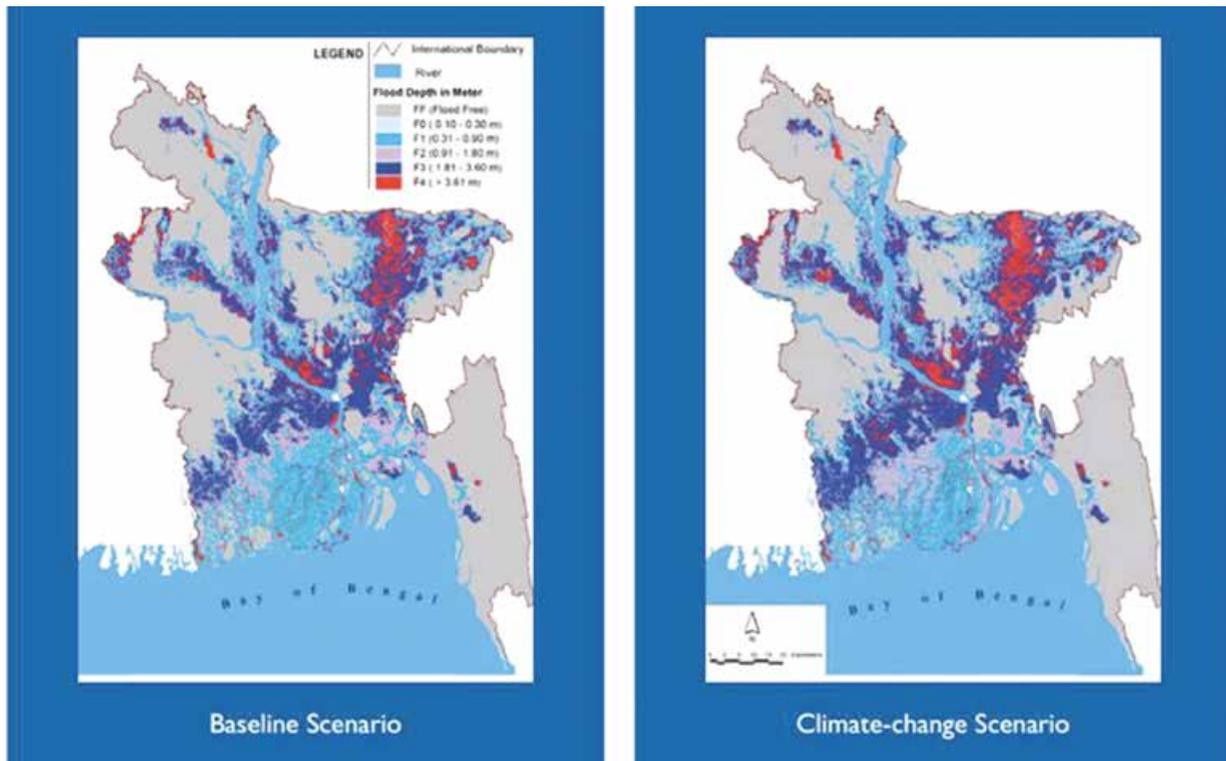


Figure 1: Comparison of baseline and climate change scenarios for risk-exposure zones for 24-hour duration floods. Source: Institute for Water Modeling, as reported by M.H. Dastagir

- First, and with the highest degree of confidence, we know that mean temperatures will rise. While temperatures are not expected to rise as much in Bangladesh as in north and central Asia, projected increases still range from roughly 1.5°C to more than 4°C by the second half of the 21st century;⁵
- Average annual rainfall in Bangladesh is also projected to marginally increase under climate change. However, in a context where average annual rainfall is concentrated in a single annual monsoon season and already averages from a low of approximately 1,400mm per year to in excess of 2,500mm per year, even modest increases of monsoon rains are likely to exacerbate flooding, to which 68% of the country is vulnerable and in which 25-30% of the country's land mass is inundated in a "normal" year;⁶
- Global warming will also unavoidably result in sea level rise as a result of both thermal expansion of the oceans

and loss of ice caps and glaciers. While the range of estimates is wide, in Bangladesh projected sea level rise along the coast will be about 88cm by the year 2100.⁷ Sea level rise, combined with coastal subsidence, will lead directly in Bangladesh to the displacement of large numbers of coastal residents and will impact both drinking water supply and agriculture as a result of saltwater intrusion;

- A severe tropical cyclone hits Bangladesh, on average, every three years.⁸ As a result, Bangladesh is already recognized as a global hotspot for tropical cyclones.⁹ To date, "there is low confidence in any observed long-term (40 years or more) increases in tropical cyclone activity (i.e. intensity, frequency, duration), after accounting for past changes in observing capabilities."¹⁰ There is,

5 Inter-Governmental Panel on Climate Change (IPCC) Fifth Assessment Report (AR5), WGII, Chapter 24 (Asia).

6 National Plan for Disaster Management, 2010-2015, Disaster Management Bureau, Government of the People's Republic of Bangladesh, April 2010.

7 Source: Climate Change Cell, 2006, as reported in: Dastagir, R.M., Modeling recent climate change induced extreme events in Bangladesh: A review, Weather and Climate Extremes, January 2015

8 Bangladesh Climate Change Strategy and Action Plan, Ministry of Environment and Forests, Government of the People's Republic of Bangladesh, 2009

9 Dastagir, R.M., Modeling recent climate change induced extreme events in Bangladesh: A review, Weather and Climate Extremes, January 2015

10 IPCC, 2012: Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation. A Special Report of Working Groups I and II of the Intergovernmental Panel on Climate Change

however, some evidence that rainfall will likely be more extreme near the centres of tropical cyclones making landfall in South Asia.”¹¹ Based on recent simulation work, the area vulnerable to inundation under climate change would be 55% greater than under the baseline scenario, with an additional 2m of inundation depth.”¹²

As summarized above, climate change will result in higher temperatures and sea level rise. Global warming will also affect rainfall patterns associated with the Asian monsoon and tropical cyclones in the Bay of Bengal, with an increase in heavy rainfall events likely. Future flows in the Ganges, Brahmaputra, and Meghna rivers and their distributaries will be affected by a wide range of factors, including monsoon rain patterns, glacial retreat in the Himalayas, and upstream development leading to increased water abstraction and diversion. The nature of climate risk, and therefore the appropriate mix of adaptation strategies, will, however, vary significantly in different regions of the country, including geographies of particular interest to CARE Bangladesh, namely the southwest coast, inland rural areas in the north of the country (including both *chars* and the Haor region), and the greater Dhaka metropolitan area. These site-specific climate-related hazards are summarized in Table 1, with more detailed descriptions included in Appendix 2.

The above clearly documents the high level and diverse nature of weather-related disaster risks in Bangladesh. Also documented is the likelihood that multiple risk factors will be exacerbated under climate change. For CARE Bangladesh, a clear understanding of climate-related risks, both at the national level and in each of its focus geographies, is thus an essential input into the development of this strategy to support its impact populations (rural extreme poor, poor women, and the urban poor) in increasing their resilience to shocks and stresses. All of CARE Bangladesh’s zones of intervention are characterized by high levels of weather-related risk, although these risks are most diverse on the southwest coast. Overall, the primary risks are related to the combination of extreme weather events (heavy rainfall events, tropical cyclones) and sea level rise. Unlike in many climate-vulnerable countries, an excess, rather than a deficit, of water is the main challenge in Bangladesh, although parts of the country are drought-prone and the long annual dry season is likely to become drier still.

While Bangladesh is among the world’s most vulnerable countries to natural disasters and climate change impacts, it is important to also highlight that it is not without assets and comparative advantages that should be leveraged as part of adaptation efforts. Unlike many of the world’s most vulnerable

Table 1: Summary of Hazards, by Zone of Operation

Region	Primary Weather-Related Hazards	Other Risk Factors
Coastal Zone	<ul style="list-style-type: none"> • Tropical cyclones and storm surges • Sea level rise • Monsoon season flooding and riverbank erosion • Reduced dry season river flows 	<ul style="list-style-type: none"> • Sea level rise, land subsidence and reduced dry season flows exacerbate the problem of salinization of rivers, drinking water supplies and agricultural soils
Northern Bangladesh	<ul style="list-style-type: none"> • Monsoon flooding and riverbank erosion in the char lands along the Jamuna River • Flash flooding of depressions and erosion of raised land in the Haor region 	<ul style="list-style-type: none"> • Drought is most common in parts of northwest with lowest average annual rainfall (1,400mm)
Greater Dhaka (urban)	<ul style="list-style-type: none"> • Flooding and water-logging during monsoon season 	<ul style="list-style-type: none"> • Infrastructure collapse • Fire • Earthquake

¹¹ “The IPCC’s Fifth Assessment Report, What’s in it for South Asia?”, Climate and Development Knowledge Network, 2014

¹² Dastagir, R.M., Modeling recent climate change induced extreme events in Bangladesh: A review, Weather and Climate Extremes, January 2015



countries, Bangladesh has good rainfall, abundant water resources, and fertile soils (not everywhere). Abundant water resources also create conditions conducive to the expansion of high value fresh and brackish water fish and crustacean cultivation. Finally, Bangladesh has a track record of innovation on which to build. For example, CARE Bangladesh pioneered innovative rice-fish farming systems in the 1990s and implemented the country's first-ever climate change adaptation project—Reducing Vulnerability to Climate Change (2002-2005). The RVCC project also served as a springboard for CARE International's global climate change adaptation efforts, providing the foundations of its community-based adaptation framework and related methodologies, such as the Climate Vulnerability and Capacity Analysis (CVCA) tool. Taking advantage of the opportunities presented by the Bangladesh context and then following through to build on innovative work should be hallmarks of CARE Bangladesh's strategy to build the resilience of its impact populations to disasters and climate change.





III. Government of Bangladesh: Disaster and Climate Change Strategies and Plans

“In recent years, the GOB has produced a National Plan on Disaster Management, formulated a (draft) Policy on Disaster Management, revised its Standing Orders on Disaster, and enacted its legal framework for disaster risk reduction. On climate change, Bangladesh Climate Change Strategy and Action Plan has been formulated, which has been complemented by the establishment of a number of institutions and funds so that both adaptation and low carbon development may be addressed adequately through the engagement of various stakeholders including the government agencies. Despite such groundbreaking initiatives and policy frameworks, the GOB recognizes a few challenges which need to be overcome in order to provide adequate services to the citizens towards reducing risks of hazards and disasters with or without climate change and to steer the country’s economy in a low carbon and energy efficient pathway.”

Sectoral inputs towards the formulation of Seventh Five Year Plan (2016 – 2021, Climate Change and Disaster Management, Ahsan Uddin Ahmed et al.

Over the last decade or so, the Government of Bangladesh, as summarized above, has produced a number of strategies and plans specifically addressing resilience to natural disasters and climate change, starting with the National Adaptation Programme of Action (NAPA) in 2005. Since both the National Plan on Disaster Management and the Climate Change Strategy and Action Plan are already quite out-dated (2009-2010), a stock-taking of progress to date was undertaken as part of the formulation of the country’s new Five Year Plan (2016-2021). As regards



disaster management and climate change, the inputs to the Seventh Five Year Plan identified a number of shortcomings in Government capacity and plan implementation requiring “immediate attention”, including: 1) “Limited understanding, knowledge and capacity; 2) Inadequate management skills at all tiers; 3) Adaptation priorities are yet to be set out; 4) Inadequate integration of climate risk with development planning and budgeting; 5) Weakness in implementation, monitoring and shared learning; 6) Limited financing; and 7) Weaknesses in institutional coordination.”¹³

**Bangladesh Climate Change Strategy and Action Plan
2009 Action Pillars:**

1. Food security, social protection and health;
2. Comprehensive Disaster management;
3. Infrastructure;
4. Research and knowledge management;
5. Mitigation and low carbon development;
6. Capacity building and institutional strengthening.

While the above-described challenges are daunting, they also provide a clear plan of action for both the Government of Bangladesh and its development partners, including both donors and civil society organizations, with capacity-building and improved inter-institutional coordination a

necessary foundation for attracting additional financing to a clearly-articulated set of climate change adaptation and disaster mitigation interventions. Revisions to the current Disaster Management and Climate Change strategies offer important opportunities to set clear priorities, in alignment with the Seventh Five Year Plan, and build consensus on the way forward if undertaken in a sufficiently inclusive manner. Perhaps the country’s most critical opportunity to attract financing and accelerate progress on urgently-needed adaptation efforts is the development of Bangladesh’s National Adaptation Plan (NAP), already underway. Revisions to the Bangladesh Climate Change Strategy and Action Plan (BCCASP) must, therefore, “attempt to provide for a priority list of actions and a rough estimation of cost of adaptation of prioritized projects so that those may be integrated with both the 7th Five Year Plan as well as the NAP.”¹⁴

In addition to the above-described core resilience planning processes, the Government of Bangladesh also developed in 2013 a Climate Change Gender Action Plan (ccGAP). The Seventh Five Year Plan also offers the opportunity to implement and resource this strategy. CARE Bangladesh, given its focus on women’s empowerment, should prioritize support for the implementation of the following recommendation in this regard: “Greater efforts must be made to understand and respond to gender differentiated

¹³ Final Report, Sectoral inputs towards the formulation of Seventh Five Year Plan (2016 – 2021), CLIMATE CHANGE AND DISASTER MANAGEMENT, Ahsan Uddin Ahmed et al., January 2015.

¹⁴ Ibid.



impacts of climate change and the adaptive capacity of both women and men. The Climate Change Gender Action Plan (ccGAP), developed by the GOB needs to be disseminated amongst stakeholders and implemented within the purview of the 7th Five Year Plan. Since it has linkages with all six pillars of the BCCSAP, the plan must be given due priority for implementation in near future in a bid to integrate gender concerns in all activities on climate change adaptation.”¹⁵ The ccGAP document’s recommendations regarding Pillar One of BCCSAP are particularly detailed and relevant to CARE Bangladesh’s work on disaster and climate change resilience: “Under the food security, social protection and health pillar, emphasis has been given to integrate gender and climate change concerns into policies and national

documents concerning the agricultural sector, create environment to lease land/ water bodies to women, ensure crop insurance and/or other safety nets for female farmers, access to financial instruments and capacity development and involvement of women on alternative technologies for example bio-fertilizer; climate resilient cropping etc. Actions have been suggested to integrate Climate change and gender in national health policy and programs, to support livelihood for women migrated due to climate change, better participation of women for efficient water management and better social security/protection of women, adolescents, and children pre, during and post-disaster and emergency situations.”¹⁶

15 Final Report, Sectoral inputs towards the formulation of Seventh Five Year Plan (2016 – 2021), CLIMATE CHANGE AND DISASTER MANAGEMENT, Ahsan Uddin Ahmed et al., January 2015.

16 MoEF, (2013). Bangladesh Climate Change and Gender Action Plan. Ministry of Environment of Forest, Government of the People’s Republic of Bangladesh, Dhaka, Bangladesh.

IV. Resilience Conceptual Frameworks

“Over the last few years, resilience has emerged as the new preferred paradigm among development organisations, including both non-governmental organisations and donors, to meet a future world of uncertainty and change. The growth of the popularity of resilience within the development discourse, and the adoption of resilience widely across programmatic pillars within NGOs and donor agencies, has led to an explosion of resilience-focused frameworks.”

Overseas Development Institute, July 2015

CARE Bangladesh’s resilience strategy is firmly grounded in the literature and practice of resilience-building as it has evolved over the past decade. While resilience is a new way of framing development in a context of high exposure to natural disasters and climate change, it clearly builds on several other approaches already familiar to CARE. The most important of these approaches are: sustainable livelihoods; community-based adaptation to climate change¹⁷; and disaster risk management/reduction. Although CARE Bangladesh’s approach to resilience-building is informed by a number of resilience conceptual frameworks¹⁸, the framework used as a foundation for the development of this strategy is the Community Resilience Conceptual Framework developed for the U.S. Government’s Feed the Future Initiative.¹⁹ (See Figure 2 below.) Some of the strengths of this framework are: 1) it emphasizes starting with good contextual analysis to provide a pre-shock/stress baseline; 2) it employs a comprehensive community capitals approach, with a particular emphasis on bonding, bridging and linking social capital; 3) it explicitly calls out important community social dimensions and areas of potential collective action; and 4) it uses livelihood outcomes as the ultimate indicators for measuring community resilience.

Another very important contribution of the literature on the conceptual framing of resilience relates to the identification of several different forms of inter-related capacities, namely absorptive, adaptive, and transformational capacity, summarized as

¹⁷ This strategy is consistent with and builds on CARE’s Community Based Adaptation (CBA) Framework. For further details on that framework, see: http://www.careclimatechange.org/tk/cba/en/cba_basics/cba_framework.html

¹⁸ Frameworks drawn on include: 1) the ACCRA Local Adaptive Capacity framework; 2) the DfID-supported BRACED initiative framework; 3) USAID’s Feed the Future Community Resilience Conceptual Framework; and 4) the Rockefeller Foundation City Resilience Framework.

¹⁹ Frankenberger, T., Mueller, M., Spangler T, and Alexander S., October 2013. Community Resilience: Conceptual Framework and Measurement Feed the Future Learning Agenda., Rockville, MD: Westat.



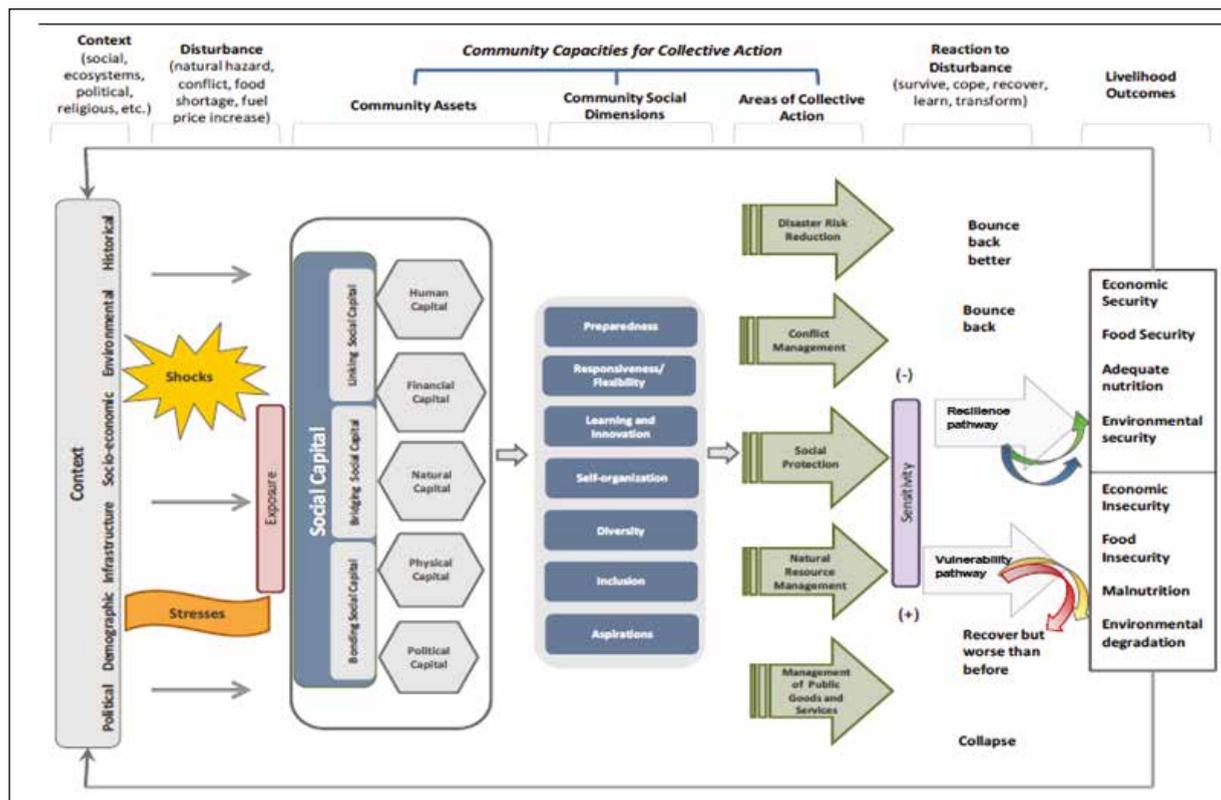


Figure 2: Frankenberger et al., Feed the Future Resilience Conceptual Framework, 2013.

follows: "Drawing on this, we propose to use the following three components of resilience: absorptive, adaptive, and transformative capacity as the three structuring elements of an analytical framework aimed at understanding better what exactly 'strengthening resilience' means. The salient point of the framework is the fact that resilience emerges as the result not of one but all of these three capacities: absorptive, adaptive and transformative capacities, each of them leading to different outcomes: persistence, incremental adjustment, or transformational responses."²⁰

CARE Bangladesh's resilience strategy is thus grounded in a solid understanding of existing conceptual frameworks, while also contextualized to its work in Bangladesh. CARE's long experience in the application of a livelihoods approach is one important foundation, emphasizing good contextual analysis and the critical role played by efforts to build the tangible and intangible asset base of households, including the bonding,

bridging and linking social capital needed for effective collective community action. Distinguishing the absorptive, adaptive, and transformative capacities required to achieve resilience outcomes is also a useful way of integrating other approaches already familiar to CARE, particularly climate change adaptation and disaster risk reduction. In Bangladesh, given the magnitude of the climate-related challenges facing the country, transformative approaches, including those at a policy and governance level, will be essential. Finally, resilience outcomes, in this approach, are the sort of development outcomes already used by CARE (poverty reduction, food and nutrition security, gender equality), based on the understanding that in a context like Bangladesh such outcomes can not be achieved without building resilience to natural disasters and climate change.

20 Béné et al. Resilience: new utopia or new tyranny? Reflection about the potentials and limits of the concepts of resilience in relation to vulnerability reduction programmes. IDS Working Paper, Volume 2012, Number 405.

V. CARE Bangladesh Approach to Resilience Building

A. Definition of Resilience

Drawing on a range of existing definitions of resilience but modifying them to meet the specific needs of CARE Bangladesh's long-term programs, the following definition has been developed to guide this strategy:

"Resilience is the capacity of communities, local and central government, and systems to absorb, adapt to, and recover from shocks and stresses and transform in ways that reduce vulnerability and facilitate environmentally sustainable growth, particularly for poor households, women and girls."

B. Pillars of CARE Bangladesh's Resilience-Building Strategy

CARE Bangladesh's approach to resilience-building is comprehensive, encompassing interventions to build both the human/social capital and asset base of its impact populations (marginalized women, extreme rural poor, and marginalized urban poor), while promoting more diverse and resilient livelihood strategies and building capacity to manage natural disasters. To achieve impact at scale and enhance sustainability, promoting inclusive governance, i.e. empowering the impact population to claim its rights vis-à-vis duty-bearers, is also an integral component of resilience-building.²¹ Each pillar of CARE Bangladesh's resilience-building strategy is briefly defined below:

- 1) **Human, Social and Political Capital²²:** Building the human capital of the impact population consists of increasing their skills, knowledge, ability to labor and good health. In the context of resilience-building, this would include, for example, raising awareness of climate change impacts, increasing access to and use of climate information, and knowledge/skills related to adaptation options. Political capital refers to power relationships, as well as access to and influence on the political system and governmental process at local and higher levels. Social capital refers to the quantity and quality of such social resources as networks, membership in groups, social relations, and access to wider institutions in society. Strengthening various forms of collectives will be a central feature of CARE Bangladesh's resilience strategy;

²¹ This framing is complementary to that of CARE's CBA Framework, which emphasizes four enabling factors: Promotion of climate-resilient livelihoods strategies; Disaster risk reduction strategies to reduce the impact of hazards; Capacity development for local civil society and governmental institutions; and Advocacy, social mobilisation and empowerment to address the underlying causes of vulnerability.

²² For further elaboration, see: Frankenberger, T., Mueller, M., Spangler T, and Alexander S., October 2013. Community Resilience: Conceptual Framework and Measurement Feed the Future Learning Agenda, Rockville, MD: Westat.



- 2) **Asset-Building (Physical, Financial, Natural Capital)**²³: Financial capital refers to the financial resources households and communities use to achieve their economic and social objectives. Physical capital includes basic infrastructure, production equipment, and other material assets that enable people to enhance their well-being. Natural capital is a community's natural resources, including land, water and forests. Given the poor and extreme poor status of CARE Bangladesh's impact populations, such asset-building strategies as savings mobilization and access to common property resources will feature in its resilience strategy. Disaster risk reduction efforts, already quite successful in reducing loss of life from natural disasters, should increasingly focus on reducing property loss (housing, livestock, productive assets) in poor communities;
- 3) **Diverse, Sustainable Livelihoods**: CARE's impact populations are the country's poor and extreme poor. Increasing food and nutrition security and increasing incomes in the face of disasters and climate change must thus be central to CARE Bangladesh's resilience strategy. In rural areas, where livelihoods are predominantly agriculture-based, this means promoting climate-smart²⁴ and nutrition-sensitive²⁵ agriculture, broadly defined to encompass crop, livestock and fisheries, while also promoting the diversification of non-farm livelihood strategies. In urban settings, livelihood strategies are predominantly non-agricultural, both in the informal and formal sectors, and priorities include ensuring fair wages and working conditions and skills-building;
- 4) **Disaster Risk Reduction and Disaster Management**: CARE's impact populations in all zones of operation—coastal zone, northern chars, Haor region, and urban areas of greater Dhaka—are regularly exposed to a wide range of weather- and climate-related shocks. Building in elements of disaster risk reduction and response management into all long-term program efforts

²³ Ibid

²⁴ CARE International's approach to climate-smart agriculture is "SuPER," highlighting the importance of Sustainability, Productivity/profitability, Equity and Resilience. Climate-smart agriculture must first incorporate good basic agronomic practices and access to quality seeds, but then also be informed by climate science.

²⁵ In order to achieve improved nutrition outcomes through agriculture, a number of approaches have been identified, including: a focus on building social capital and women's empowerment; inclusion of diverse, nutrient-dense plant and animal products in production systems, homestead gardens, and nutrition education.

should thus be seen as necessary in the Bangladesh context. Such thinking needs to be integral to activities addressing asset-building (especially household and community infrastructure) and livelihood strategies to enhance resilience, but strengthening appropriate early warning and disaster planning systems at Union Parishad and City Corporation level (and higher governance levels) is also required;

- 5) **Inclusive Governance**: Building the social and political capital of the impact population will enable them to better claim their rights. But good governance also requires inclusive and effective governance processes and duty-bearers willing and able to ensure equal and fair access of women and men, irrespective of socio-economic status, to public programs, entitlements, and common property resources. Building the capacity of local governance structures and processes, including disaster and climate change adaptation plans and open budgeting, at Union Parishad level will be one focus of the governance component of CARE Bangladesh's resilience strategy. But achieving transformational change will also require policy change and program intervention at a national scale, making policy and advocacy work in alliance with others a key approach.

C. Building Absorptive, Adaptive and Transformative Capacity

Using the above five pillars of CARE's strategy to build the resilience of its rural and urban impact populations as a starting point, the next step toward articulating a coherent theory of change is to distinguish between the various types of capacity-building required to achieve resilience outcomes in the Bangladesh context. Definitions²⁶ of absorptive, adaptive and transformative capacity follow:

- **Absorptive capacity** is the "ability of social systems to absorb and cope with the impacts of climate variability and extremes. It refers to the ability of social systems, using available skills and resources, to face and manage adverse conditions, emergencies or disasters. While anticipatory capacity comes into play before a shock or stress, absorptive capacity is exercised during and after

²⁶ These definitions come from the DfID-funding BRACED (Building Resilience and Adaptation to Climate Extremes and Disasters) initiative. For more, see: BRACED Working Paper, "The 3As: Tracking Resilience Across BRACED", August 2015.

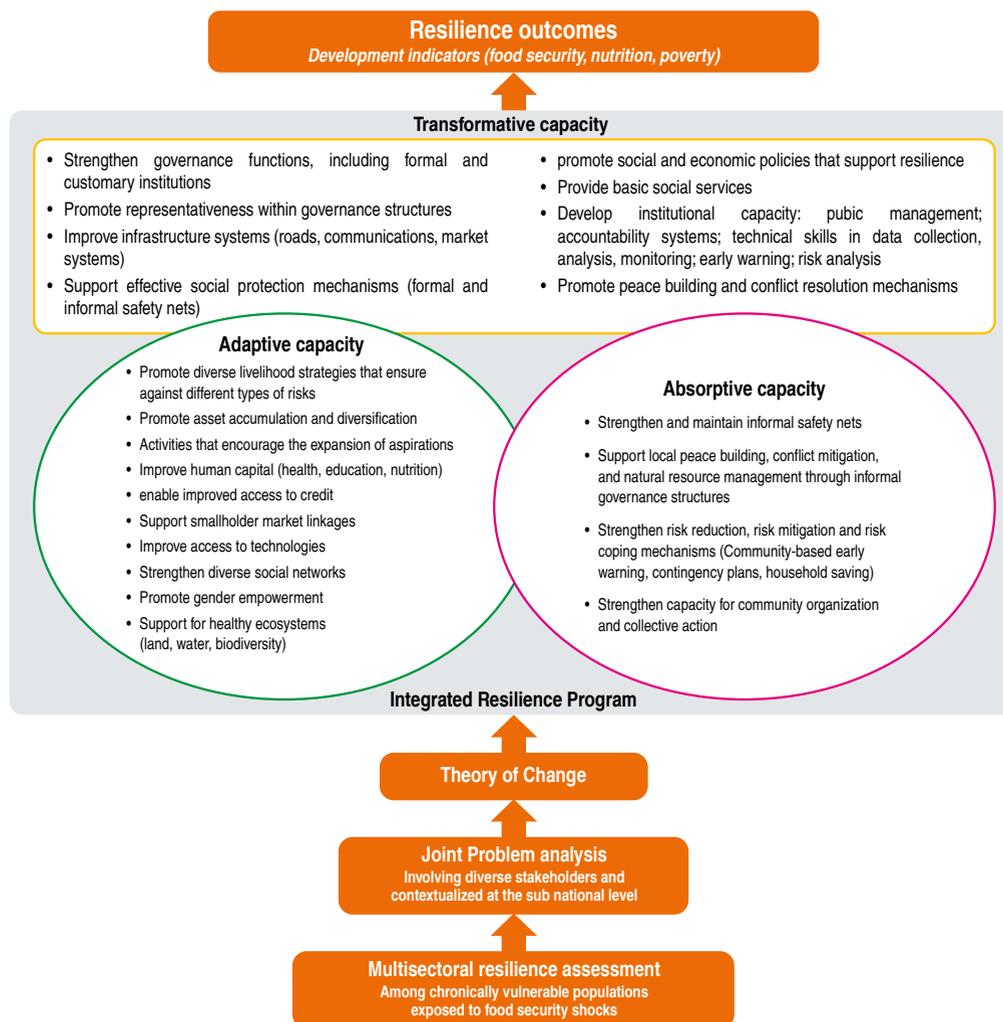


a disturbance has occurred to reduce the immediate impact on people’s livelihoods and basic needs;”

- **Adaptive capacity** is “the ability of social systems to adapt to multiple, long-term and future climate change risks, and also to learn and adjust after a disaster. It is the capacity to take deliberate and planned decisions to achieve a desired state even when conditions have changed or are about to change;”
- **Transformative capacity** requires engagement with issues of power at two levels: changes in the social structures that influence decision-making (at levels including households, communities, businesses, government departments, non-governmental organizations) and changes in individual values, capabilities and choices. Many transformational changes therefore depend on altering existing power relations (eg. gender dynamics), which involves recognizing the social and political processes that both undermine and constrain resilience. They also entail building greater transparency and the inclusion of marginalized groups into formal and informal governance systems, policies/regulations and decision-making spaces. Apart from leadership and empowerment, innovative technologies and processes can also transform systems.”

Figure 4 below then provides a useful framework for demonstrating how an integrated resilience program, which addresses absorptive, adaptive and transformative capacity, is grounded in good contextual analysis and an explicit theory of change and leads to the desired resilience outcomes (measured by development indicators related to poverty, food security and nutrition). The examples of absorptive, adaptive and transformational capacity in Figure 4 are illustrative. For purposes of this strategy, these pathways are defined by CARE Bangladesh’s resilience Theory of Change in the following section.





Source: Authors' compilation.
Note: These data do not include investment in infrastructure

Figure 3: Figure courtesy of Frankenberger et al., Current Approaches to Resilience Programming among Non-Governmental Organizations, May 2014

D. CARE Bangladesh Resilience Theory of Change (ToC)

CARE Bangladesh's impact populations in both rural and urban areas are highly exposed to natural and man-made hazards and vulnerable to the impacts of disasters and climate change. The Theory of Change summarized in Figure 4 below lays out CARE Bangladesh's strategy for building the resilience of both urban and rural communities, especially poor households, and women and girls in particular, to the impacts of disasters and climate change. That said, it is important to understand the differences between the rural and urban contexts. While both contexts demand building absorptive, adaptive and transformative capacities, some pathways will

take on greater importance in one context than the other. For example, improved management of natural capital and common property resources will be more important in rural settings. Climate-smart livelihood strategies in urban areas will obviously be very different from the predominantly agricultural livelihoods in rural areas. Also, while governance interventions are a critical impact multiplier in both settings, the specific institutions targeted for both influence and strengthening (e.g. City Corporations vs. Union Parishads) will differ. These are just a few examples of the differences between rural and urban contexts, which will be more fully elaborated in updated Theories of Change for CARE Bangladesh's long-term programs focused on the rural extreme poor and marginalized urban poor impact populations.

CARE Bangladesh Theory of Change (ToC) for Building Resilience

Impact vision: CARE Bangladesh will work with poor and extremely poor marginalized women, men, girls and boys living in rural and urban areas; building their resilience by increasing absorptive, adaptive and transformative capacities. This strategy recognizes the differences and links between the rural and urban contexts. While both contexts demand building similar capacities, some pathways will take on greater importance in one context than the other.

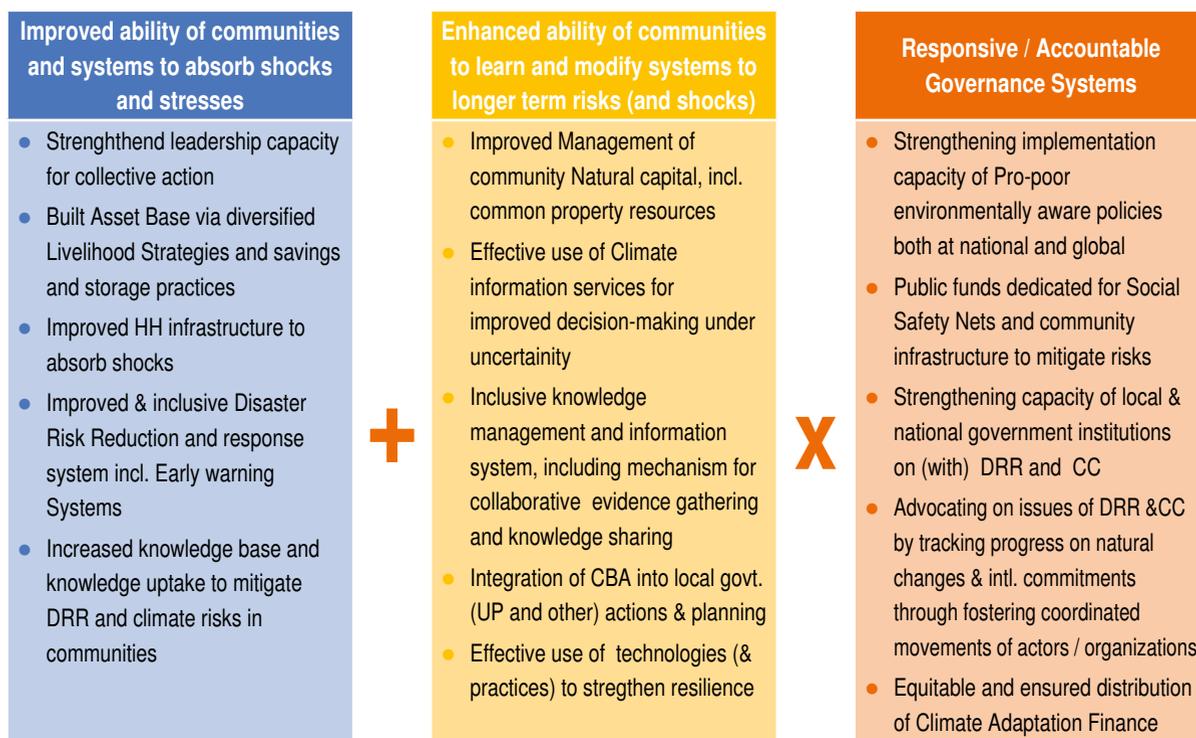


Figure 4: CARE Bangladesh Resilience Theory of Change (ToC)

Figure 4 above summarizes the CARE Bangladesh approach to resilience-building. CARE Bangladesh’s resilience-building theory of change is grounded in the conceptual framework laid out in this strategy. It builds on identifying a package of context-specific interventions addressing five pillars of resilience—human, social and political capital, asset-building, sustainable livelihoods, disaster risk reduction, and inclusive governance. These interventions can then be combined with the “absorb, adapt and transform” framework to shape CARE Bangladesh’s resilience strategy. Appendix 3 illustrates how this might be done. While approaches focusing on building absorptive and adaptive capacity will be prioritized by CARE in the Bangladesh context, identifying and implementing more transformative, breakthrough changes will be essential, particularly in the areas of social and political capital and governance.





VI. Defining CARE Bangladesh’s Resilience Niche Based on its Long-Term Programs

All of CARE Bangladesh’s work is focused on three impact populations, defined as: 1) Extreme Rural Poor (defined as people in the lowest category of well-being); 2) Women, whose rights and entitlements are denied throughout their life cycle by institutionalized gender inequality; and 3) Most marginalized urban poor, including static urban poor, seasonal migrants and recent arrivals. The Theories of Change for CARE’s work with these three populations are summarized in Appendix 1.

CARE Bangladesh’s niche in resilience work will be defined by its long-term programs, which point to a focus on “gender and disaster and climate resilience” and “resilience of the poorest and most marginalized rural and urban households.” Within these broad program focus areas, two more focused programming niches will be developed based on the above-defined CARE Bangladesh resilience Theory of Change, which are summarized in Table 2 below.

Table 2: Defining CARE Bangladesh’s Resilience Niches (Examples)

CARE BD Long-Term Programs	Extreme Rural Poor	Marginalized Urban Poor
Women’s Empowerment	Niche #1: Empowering Women through Climate-Smart Rural Livelihoods to Build Community Resilience	Niche #2: Building Urban Resilience and Opportunities for Adaptive Rural-Urban Migration

Empowering Rural Women Through Climate-Smart Livelihoods: Niche #1 represents work at the intersection of CARE Bangladesh’s long-term programs focused on women’s empowerment and the rural extreme poor. In keeping with its resilience theory of change, interventions will address all five pillars, i.e. human and social capital, asset-building, sustainable livelihoods, disaster risk reduction, and inclusive governance. Particular emphasis, however, will be placed on women’s economic empowerment through asset-building and more productive and diverse agricultural and off-farm livelihood strategies. The human capital of the extreme rural poor will be built through interventions focused

on: a) Knowledge and awareness of disaster risk and climate change; and b) Knowledge and skills for climate-smart livelihoods. Asset-building efforts will focus on collective savings and increased access to common property resources, especially *khas* land and water bodies. Livelihood strategies will encompass both climate-smart agriculture (including crop, livestock, and fisheries) and non-farm livelihoods to maximize diversification. Social capital will be built through strengthening collectives, including women's groups, savings groups, farmers groups, disaster management committees, and village development committees. Within such groups, CARE will place a strong emphasis on developing women leaders. Over time, initiatives to federate such village-level groups at district or higher level will be pursued to amplify the voice of the rural poor, especially women. CARE will use well-established tools and methodologies in building human and social social capital, including: Climate Vulnerability and Capacity Assessment (CVCA) tool; Village Savings and Loan Association (VSLA) model; Farmer Field and Business Schools; and EKATA groups (women and girls' empowerment model). Governance activities in this niche will focus on strengthening Union Parishad institutions to be more responsive to the needs and rights of the rural extreme poor. In addition, a strong emphasis will be placed on generating evidence and documenting successful intervention models to inform policy and advocacy at national and international levels.

Promoting Urban Resilience and Adaptive Migration:

Niche #2 represents work cutting across CARE's long-term programs focused on the marginalized urban poor, including seasonal migrants and new arrivals, and women's empowerment. This niche recognizes the importance of migration as both an erosive coping strategy and potentially positive adaptation for CARE's rural extreme poor impact population. As such, this niche provides a bridge between CARE's work with the rural extreme poor and marginalized urban poor and acknowledges that rural-urban migration is likely to continue under climate change, with poor people moving from highly vulnerable rural areas to urban areas where vulnerabilities are still high but manifest themselves in different ways. In its urban resilience work, CARE will work to build the human capital of the poor to engage in more productive livelihood strategies in both the formal and informal economies, including formal and informal workforce training. Approaches to building social capital for collective action that work in rural settings will need to be modified to the less



socially cohesive urban context. Asset-building, especially savings, will remain important, while access to safe housing and basic social services, including water and sanitation, take on even greater importance than in rural areas. Disaster management efforts in urban centers, given the much higher concentrations of population, will have to address a wider range of hazards, including flooding and water-logging, fire, earthquake, and infrastructure collapse. Workplace safety will be equally or more important than hazards in poor people's places of residence. Governance in urban settings is even more complex and critical, and capacity-building efforts will focus on City Corporations, including in newly emergent cities in central Bangladesh like Gazipur. As regards migration, it is clear that this trend will continue in Bangladesh and may accelerate under climate change. CARE's goal in any work directly addressing migration will focus on reducing the need for forced migration and increasing opportunities for the poor to use migration as a positive adaptation strategy that enhances rather than undermines resilience. Such work could take a number of forms: 1) reducing the push factor by improving the well-being of the rural poor; 2) addressing the particular vulnerabilities of women left behind in rural communities when male household members migrate seasonally or permanently; and 3) support recent migrants in urban areas to secure better employment and working conditions through skills development and strong citizen solidarity groups.

The above descriptions of programming niches are not fully developed but provide clear directional guidance on the logical spaces for CARE to occupy in the resilience arena in Bangladesh. Resilience, as a framework, will only grow in importance and attention from both the Government of Bangladesh and its development partners in the coming decade as the impacts of disasters and climate change fully manifest themselves.



VII. Strategy Implementation and Next Steps

The purpose of this strategy is to set the course for actions by CARE Bangladesh to ensure that its work contributes to building the resilience of its impact populations to disasters and climate change, defined as follows: “Resilience is the capacity of communities, local and central government, and systems to absorb, adapt to, and recover from natural and manmade shocks and stresses and transform in ways that reduce vulnerability and facilitate environmentally sustainable growth, particularly for poor households, women and girls.” Working from this document as a point of departure for this process, following are some of the key next steps in implementing CARE Bangladesh’s resilience strategy:

- 1) Integration of Resilience into CARE Bangladesh’s Long-Term Programs and Other Strategies:** The Domains of Change (DOCs) and pathways for CARE Bangladesh’s three long-term programs, which are summarized in Appendix 1, already incorporate numerous elements of a comprehensive approach to resilience-building. To ensure that resilience-building is fully integrated into these long-term programs, however, each team will review its existing Theory of Change (ToC) and make the necessary revisions to incorporate missing elements deemed critical to achieving its stated impact vision, taking into account all five resilience “pillars.” In addition, strategies currently under development to guide CARE’s work in specific climate-vulnerable zones (Southwest Coast and *Haor* region) will be reviewed through the resilience lens before being finalized for dissemination and implementation;
- 2) Capacity Gap Analysis:** Delivering this resilience strategy will require a range of human, technical and financial resources, either within CARE Bangladesh or its network of partners. A review of the Country Office’s existing program portfolio and human resources base is thus an important step in identifying gaps (programmatic, financial, human resources, partnerships) to be filled in order to deliver this strategy and its intended outcomes. Once gaps are identified, a prioritization exercise should be undertaken to identify those to be addressed most urgently, either through internal CARE investment or as part of new program design and resource mobilization efforts;
- 3) Partnership Mapping:** Although a range of external stakeholders— Government, INGOs, national and international policy and research institutes—were consulted during the formulation of this strategy, a key next step is a thorough institutional mapping of key actors in the resilience space in Bangladesh. The holistic and



multi-layered nature of this resilience strategy makes strengthening partnerships an essential feature of CARE Bangladesh's future resilience work. Priority should be given to identifying a small number of government, local and international NGO (and consortia), and policy and research organizations with most to offer by way of complementary roles and expertise and building strategic partnerships for resilience-building;

- 4) **Impact Measurement and Learning:** Resilience is a relatively new approach to CARE's work and one that is inherently knowledge-intensive. It will therefore be important for CARE Bangladesh to develop a learning agenda that is specific to the resilience niche(s) it decides to develop. This, in turn, will inform the policy and advocacy work of CARE Bangladesh and its partners on resilience. Generating evidence of impact is also critical, and this will require the development of an impact measurement framework connected to this resilience strategy. CARE Bangladesh does not need to reinvent the wheel in this regard since some good work on resilience indicators has already been done as part of the conceptual frameworks on which this strategy has been built;

- 5) **Donor Landscaping and Outreach:** A number of Bangladesh's major bilateral and multilateral donors have already adopted the resilience agenda as part of their country assistance strategies, and multiple calls for proposals under the resilience rubric are anticipated in 2016. Moreover, new global funding streams, such as the Green Climate Fund (GCF), are coming on line and expected to ramp up their outlays in the coming years. Bangladesh is potentially well positioned, by virtue of its high level of disaster and climate change vulnerability, to be a major beneficiary of such funding streams. Indeed, one of the first eight projects approved by the GCF Board in November 2015 will support the development of climate-resilient infrastructure in Bangladesh. The development of this resilience strategy gives CARE Bangladesh the opportunity to strengthen existing donor relationships and build new ones and should be widely shared in early 2016. Moreover, as the Government of Bangladesh explores its opportunities to access GCF and other global funding sources for disaster risk reduction and climate change adaptation, CARE should consider entering into strategic alliances with key Government of Bangladesh ministries and accredited national and international agencies in a position to access these funding streams.

VIII. Conclusion

CARE Bangladesh is committed to building the resilience of poor rural and urban households, and especially women and girls, to the shocks and stresses caused by disasters and climate change. CARE Bangladesh's approach will be a comprehensive one, and fully integrated into its programs in its work throughout the country, including highly climate-vulnerable zones such as the southwest coast, northern *char* lands, *Haor* region, and the Dhaka metropolitan area of central Bangladesh. This strategy provides a framework to guide the integration process and clearly lays out the next steps for its full implementation beginning in 2016.



Appendix 1:

Overview of CARE Bangladesh Long-term Programs

Appendix1: Overview of CARE Bangladesh Long-term Programs

	Extreme Rural Poor	Women's Empowerment	Urban
Impact group	People in the "lowest" category of the well-being ranking (as assessed by poor rural communities)	Women, whose rights and entitlements are denied throughout their life cycle by institutionalization of inequity between men and women.	Static urban poor, Seasonal migrants and recent arrivals, Most marginalized.
Impact Vision	People in the "lowest" category of the well-being ranking (as assessed by poor rural communities) especially those people trapped in a set of unequal power relations sustainably overcome the barriers that prevent the fulfillment of their rights.	The "most" socially, economically and politically marginalized women are empowered. ("most" is defined by multiple denial of rights)	In decentralized urban areas, the marginalized and poor will have access to secured life and with equitable social, economic and environmental outcomes.
Theory of Change (ToC)	DOC 1: Better access to and use of resources and services.	DOC 1: Exercise of greater choice in decisions affecting their lives.	DOC 1: Increased social acceptance and reduced exploitation and discrimination.
	DOC 2: Spaces for poorest to participate in local Govt. And development processes.	DOC 2: Reduced violence against women	DOC 2: Equitable and distributed access and entitlements to service, resources and livelihoods
	DOC 3: Reduced exploitation and dependence on others	DOC 3: Strong social movements built on women's solidarity and participation of men.	DOC 3: Enhanced quality and resilience of living conditions DOC 4: Active engagement in urban governance process backed by pro-poor urban policy.
Pathways	1: Develop in the EP a sense self-belief that raises their confidence to speak and act in their defense.	1 : Girls show greater confidence, competence and leadership	1: Develop strong citizen solidarity groups, networks and alliances.
	2: Create off-farm/value enhancing economic activities for the EP	2: More equitable gender relations in the household.	2: Increased Social acceptance of Social excluded groups, Including women and recent migrants.
	3: Develop alternative leadership of the EP.	3: Women benefit equitably from market and labor, wage employment and education opportunities.	3: Viable and appropriate provision of urban safety net program
	4: Promote pro-poor inclusive governance at local level.	4: Enable women to act on and realize their inheritance rights especially to property and land.	4: Ensure fair wages and employment conditions
	5: Enable the EP to absorb shocks.	5: Women and girls have greater control over their own bodies and realize M&SRH rights	5: Build demand driven vocational and soft skills and capacities.
		6: Gender sensitive local governance	6: Inclusive small scale business development
		7: Increased representation of women and girls in politics and public sphere.	7: Self aware and capacitated community structures to lead self-directed processes.
		8: The justice system is responsive to women and survivors of violence.	8: Responsive local Government and service providers co-produce services with communities.
		9: Domestic violence and other VAW related act is enacted.	9: Protecting livelihood of poor from urban disasters and climate change
		10: Transformed understanding and practices of masculinity	10: Develop political will amongst government and private sector stakeholders to address policy issues.
		11: Grass roots organizations engage in social change transformation process and action.	11: Operationalising existing pro-poor urban policy (decentralization and investments)
		12: Networks drawn together solidarity groups and organizations for common actions for WE.	

Appendix 2:

Climate-Related Hazards in Coastal, Northern, and Urban Bangladesh

Coastal Zone: The coastal zone of Bangladesh, including the southwest, is among the country's most vulnerable areas to the direct and indirect impacts of climate-related natural disasters. In addition to its exposure to tropical cyclones and associated storm surge and the direct impacts of sea level rise, the southwest coast is also most affected by the growing

inundated. There will be increasing risk of coastal salinity (both soil as well as surface water, including drinking water from wells). Scarcity of saline free drinking water will be even more pronounced. In cyclone prone areas in Bangladesh sea level rise will have compounding effects on coastal drainage and erosion.²⁷

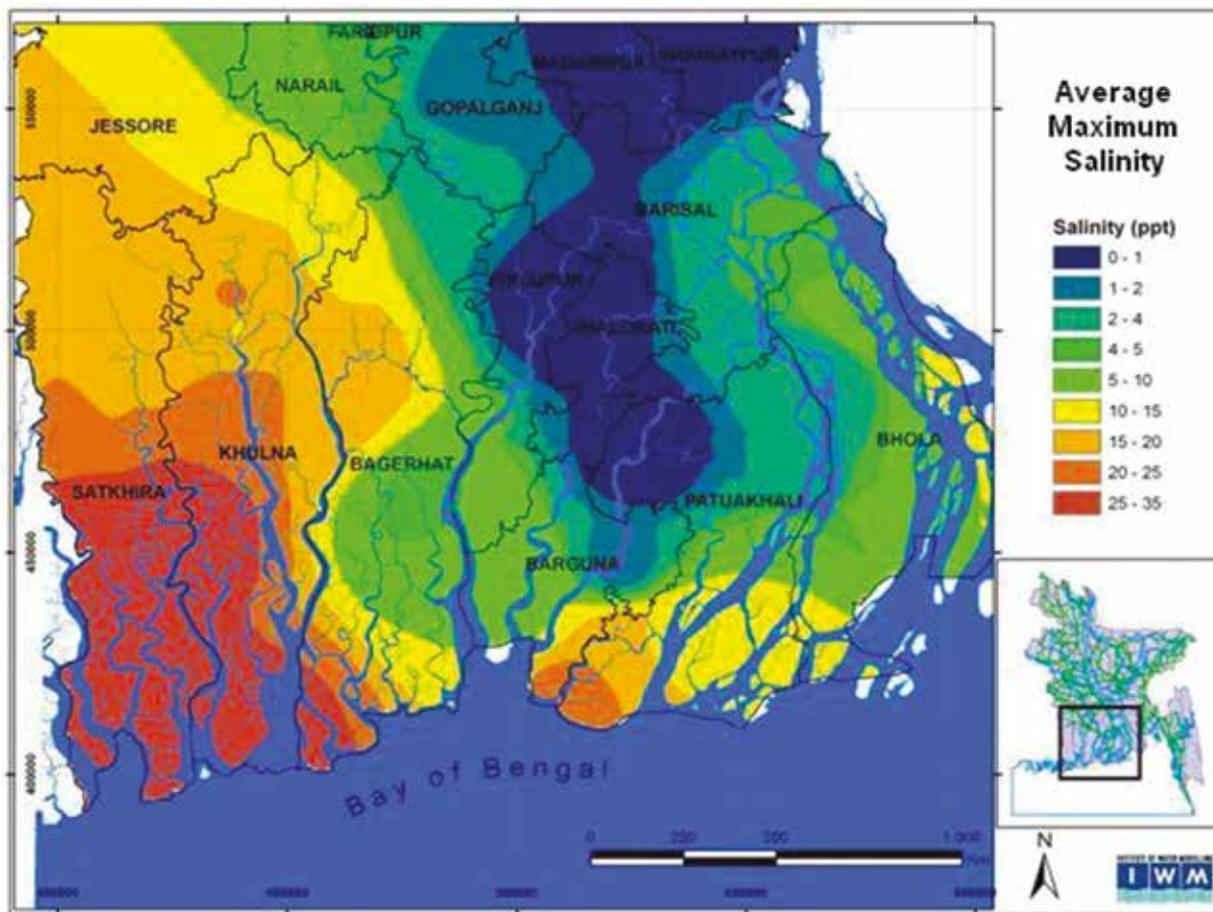


Figure 6: Average Maximum Salinity. Source: Institute for Water Modeling, as reported by World Bank

problem of soil and water salinization. If mean sea level in Bangladesh rises by the projected 0.88m or more by the second half of the 21st century, following is a description of the possible consequences: "If this comes true, a majority of the low-lying non-embanked coastal areas may be completely

Northern Bangladesh: The most significant climate-related risk in northern Bangladesh is monsoon season flooding, and

²⁷ See: "Policy Brief: Local Level Hazard Maps for flood, Storm Surge and Salinity, Ministry of disaster Management and Relief, June 2014.

its associated erosion and water-logging. Flooding is already a widespread phenomenon in Bangladesh during the rainy season, which is only projected to worsen under climate change, particularly in the northeastern Haor region and central Bangladesh. Flooding in the char lands along the Jamuna (Brahmaputra) River, coupled with extensive riverbank erosion²⁸, is also an already widespread phenomenon and expected to worsen under climate change. A recent study estimated that bank erosion along the Jamuna River during 1973-2004 totaled 87,790 hectares. Recent simulations of the 1998 floods under climate change conditions for 2050 and 2080 show larger areas of a number of districts in northern Bangladesh (Rajshahi, Natore, Rangpur, Bogra, Netrokona and Sylhet) are “likely to be submerged with higher flood depths.”²⁹ Bangladesh is described as a country blessed by monsoon rains, and that is certainly the case when compared to much of South Asia. That said, the Government considers portions of northern Bangladesh, particularly in the northwest to be drought-prone and describes the risk as follows: “Bangladesh faces unpredictable drought hazard in the dry monsoon due to inadequate and uneven rainfall. It varies from place to place, however, and the northwestern region suffers most from the drought.”³⁰

“The results showed a trend of increasing monsoon flows for these scenarios during the periods of 2020s, 2050s and 2080s with a projected shift in the seasonal distribution of flows. Examining the monthly projected flows for different scenarios and comparing with the observed condition, it was found that the peak flow may increase 4.5 – 39.1% in monsoon and the dry period low flows may drop by 4.1 – 26.9% indicating high seasonality as a result of climate change. Due to seasonal variation of precipitation and temperature, i.e., excess precipitation in monsoon and lack of precipitation along with higher temperature in the dry season, the flood peaks are likely to shift towards earlier months and the rate of change of flows during the rising and recession of flooding would be much higher compared to current state of the river. These results also indicate the exacerbation of flooding potential in the central part of Bangladesh due to the largest increase of peak flows during monsoon.”²

28 According to the National Plan for Disaster Management 2010-2015, the most erosion-prone districts (Kurigram, Gaibandha, Jamalpur, Bogra, Siajganj, Tangail, Pabna, and Manikganj) are situated along the Jamuna River. A total of around 10,000 hectares of land is eroded by river per year in Bangladesh.

29 See: “Policy Brief: Local Level Hazard Maps for flood, Storm Surge and Salinity, Ministry of disaster Management and Relief, June 2014.

30 National Plan for Disaster Management, 2010-2015, Disaster Management Bureau, Government of the People’s Republic of Bangladesh, April 2010.

Greater Dhaka Metropolitan Area: By virtue of its location, concentration of population (now more than 15 million), and governance challenges, Dhaka is one of the world’s urban hotspots for climate risk. The most significant natural cause of disaster in Dhaka is flooding and waterlogging, but it should be noted that the risk of a destructive earthquake in Dhaka is also not negligible since it is located in Zone 2 (moderate seismic risk). In addition, manmade disasters, including fires and building collapse, are not uncommon in greater Dhaka and other urban centers in Bangladesh. ³¹Climate change aggravates these hazards directly and indirectly, through increased frequency and severity of floods and continuing rural-urban migration as a result of the climatic changes experienced throughout Bangladesh. Increasing population pressures accompanied by poor infrastructure and a lack of public services heightens the risks posed. Within Dhaka, hazards are most extreme amongst communities inhabiting low-lying slum areas. Weather-related risks in the greater metropolitan area are not confined to the political boundaries of the Dhaka City Corporation. In 2014, CARE Bangladesh undertook a socio-economic and vulnerability study of Gazipur City Corporation.³² Gazipur City, incorporated in only 2013, has a population of more than 3.5 million people. Participatory research revealed that one of the two slum areas studied experienced major floods in 1988 and 1989. Water-logging was identified as a major problem, occurring 2-3 times per year in Tongi, often lasting for periods of up to ten days and severely curtailing movement and economic activity. Both communities reported that water-logging is a regular seasonal (June-September) occurrence, resulting in flooding homes up to 1m in depth.

31 See: Disaster Risk Reduction in Dhaka City: From urban landscape analysis to opportunities for DRR integration, World Vision

32 Urban Socio-Economic and Vulnerability Study of Gazipur City Corporation, CARE Bangladesh, July 2014

Appendix 3:

Illustrative Matrix of Interventions by Strategy Pillar in Absorb, Adapt and Transform Framework³³

	Absorb and Adapt	Adapt and Transform
Human Capital	<ul style="list-style-type: none"> Increased knowledge and awareness of CC and DRR 	<ul style="list-style-type: none"> Enhanced capacity to make decisions in the face of uncertainty
Social and Political Capital	<ul style="list-style-type: none"> Enhanced leadership for collective action 	<ul style="list-style-type: none"> Participation of impact population in national and global movements Building movements of people's organizations on CC and DRR
Asset-Building	<ul style="list-style-type: none"> Access to natural capital and common property resources Resilient infrastructure Collective savings and informal safety nets 	<ul style="list-style-type: none"> Formal safety net programs
Diverse, Sustainable Livelihoods	<ul style="list-style-type: none"> Climate-smart agricultural practices Livelihoods diversification 	<ul style="list-style-type: none"> Access to high quality and timely climate information services
Disaster Risk Reduction	<ul style="list-style-type: none"> Early warning systems Community vulnerability assessments and disaster plans 	<ul style="list-style-type: none"> Dramatically improved early warning systems (e.g. longer lead times)
Governance	<ul style="list-style-type: none"> Integration of CBA into local planning and budgeting processes 	<ul style="list-style-type: none"> Evidence-gathering for policy influence Implementation of pro-poor and environmentally-aware policies Equitable allocation of development and climate finance

³³ This matrix is intended as a decision-making framework for CARE Bangladesh and does not rule in or out all the interventions that might be considered for resilience-building work in a specific context. This matrix will be further refined for use in regional strategy and program design work.



care®