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Inclusive Resilience

Inclusion Matters for Resilience in South Asia

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GFDRR
Global Facility for Disaster Reduction and Recovery

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Executive Summary cover

Peeyush Lamgade

Inclusive Resilience

Inclusion Matters for Resilience in South Asia

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Foreword

Climate change and natural disasters are some of the biggest threats confronting South Asia. Global evidence, including studies carried out by the World Bank and the Global Facility for Disaster Reduction and Recovery (GFDRR), indicate that these climatic and disaster events create disproportionate impacts on the poor and the marginalized. This publication contributes to this body of knowledge by analyzing the specific challenges marginalized groups and communities in South Asia experience in disaster contexts due to their social backgrounds and identities. The publication also builds on the World Bank's analytical work and expertise in social inclusion and sustainability, applying the methodology adopted in the flagship report, "Inclusion Matters: The Foundation for Shared Prosperity," in the context of disaster risk management (DRM).

The analytical work reveals the absence of statistics and documented evidence about social exclusion in the DRM context even though there are patches of personal experience and stories shared in various forms. There may be many more untold stories. The availability of information is just a starting point: This can help understand and identify and implement effective practical methods and actions to ensure inclusivity. These can also help build the resilience of the communities we serve—aptly encapsulated by the term 'inclusive resilience.'' By critically examining the vectors of exclusion in DRM projects in South Asia, this report presents practical actions that can be taken to enhance resilience and inclusive outcomes through our interventions.

The year 2020 was a year the entire world was reminded of the importance of social inclusion and continued challenges posed by climate change and natural disasters. While the global pandemic impacted the whole world indiscriminately, we recognized the disproportionate impact and challenges experienced by the poor and the vulnerable. While the pandemic continues to hit hard on

people's lives, we were also reminded that climate change does not stop, and natural disasters continue to affect our lives. We also recognized the persistent systemic racism affecting our society around the world. We have also learned that disaster preparedness outcomes can be useful for a pandemic emergency (e.g., repurposing evacuation shelters as isolation facilities and customization of standard operating procedures for natural disasters for health emergencies).

This publication is a contribution to the World Bank's efforts to make resilience truly for all. At the World Bank, Disaster Risk Management and Social Sustainability and Inclusion units have worked together to advance the agenda of Inclusive Resilience in South Asia. This publication shares practical recommendations for practitioners and policy-makers who design disaster risk management activities based on our expanding experience and analysis. We hope this publication encourages many practitioners to take proactive actions to ensure resilience is indeed for all, including people who often tend to be excluded.

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Lastly, we also acknowledge the generous support from the Global Facility for Disaster Reduction and Recovery (GFDRR).

Abbreviations

ASHA	accredited social health activist (India)
BWCSRP	Bangladesh Weather and Climate Services Regional Project
CBRA	community-based rapid assessment
CRes MPA	Climate Resilience Multi-Phase Programmatic Approach (Sri Lanka)
CSMMC	Cyclone Shelter Management and Maintenance Committee (India)
CSO	civil society organization
DMT	disaster management team
DRM	disaster risk management
EWS	early warning system(s)
GBV	gender-based violence
ID	identification
MPCS	multiple-purpose cyclone shelter
NCRMP II	National Cyclone Risk Mitigation Project, phase 2
NDMA	National Disaster Management Authority (Pakistan)
NGO	nongovernmental organization
NRA	National Reconstruction Authority (Nepal)
PDNA	post-disaster needs assessment
PwD	person(s) with disabilities
SC	Scheduled Caste
SGBV	sexual and gender-based violence
SMS	short message service
ST	Scheduled Tribe
TA	technical assistance
UN	United Nations

ES.

Executive Summary

Illustration by: Peeyush Lamgade

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Analytical Context

South Asia is one of the regions most vulnerable to the impacts of natural hazards, particularly climate-induced extremes. The frequency and intensity of climate-induced hazards are projected to increase in the coming years, threatening the safety of households and communities, their livelihoods, and the development gains they have achieved.

Further, disasters and climate change events have differential impacts on those who are socially excluded or marginalized. These groups especially include women, persons with disabilities (PwD), ethnic and religious minorities, the indigenous, the elderly, and the poor. They tend to live in higher-risk areas with increased exposure and vulnerability to natural hazards, often have limited resources to draw upon when they are struck by a disaster, and are not typically represented in decision-making bodies that deliver disaster risk management (DRM) interventions.

Social exclusion in South Asia remains pervasive and has a significant impact on both development and disaster outcomes. For example, global studies have established a strong link between poverty and climate vulnerability given that poor people are more likely to be exposed to hazards; lose more as a share of their limited wealth when hit; and receive less support after disasters from family and friends, financial systems, and governments (Hallegatte et al. 2017).

Less discussed are the ways in which climate vulnerability, poverty, and social exclusion *intersect*, yielding distinct and multidimensional disaster outcomes depending on the group affected. Sociocultural roles, norms, and values associated with certain identities determine access to resources, economic opportunities, and representation in decision-making bodies. Some of the most common markers of social identity in South Asia that result in exclusion are gender, race, caste, ethnicity, religion, and disability status (World Bank 2013). Other factors such as age and location also determine who is socially marginalized. The intersection of different identities can

compound disaster impacts. As noted above, the aims of disaster risk management and poverty reduction are clearly complementary. Hence, to ensure that DRM strategies comprehensively address the needs of all marginalized groups, they must be socially inclusive.

Although most South Asian countries have put in place several DRM policies, programs, and plans that commit to promoting social inclusion, a gap persists between these policy instruments and the actions on the ground. Throughout the entire DRM cycle—of disaster risk mitigation, preparedness, response, and recovery—measures must be both designed and implemented to reflect the needs, capabilities, and voices of socially excluded groups. Only after these gaps between *de jure* policies and *de facto* actions are addressed will it be possible to ensure the resilience of *all* people in South Asia to withstand climate- and disaster-related impacts in the future.

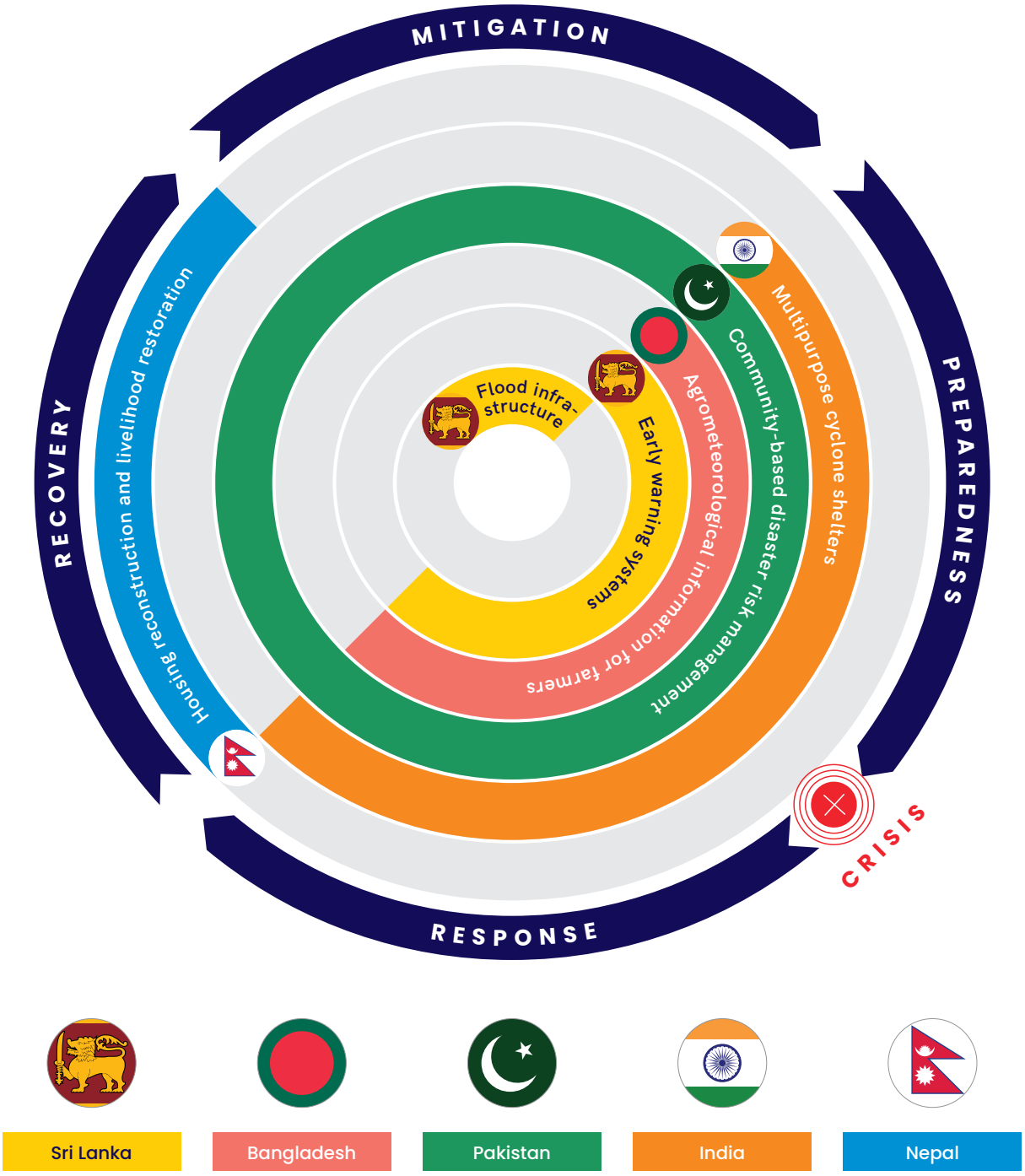
Disasters exacerbate the inequalities arising from social hierarchies, but they also present opportunities to enhance equality and empower women and other traditionally marginalized groups. The inequalities facing PwD, for instance, become pronounced when a disaster early warning system accounts for neither the access nor the functional needs of people who may be blind, deaf, or physically challenged. If the system is not designed to get information to these groups in the needed format or to give them adequate time to prepare, the result can be life threatening. Yet it is important to note that marginalized groups are not only victims of disasters but also have unique abilities to contribute to the resilience of their communities. For example, the elderly are commonly considered as vulnerable, yet in the disaster context they serve as valuable sources of information on local hazards and mitigation strategies that can supplement scientific data and evidence. DRM interventions that address both the needs and capabilities of these groups can broaden the benefits of a particular intervention while also strengthening overall resilience of them and the society as a whole.

Analytical Approach

***Inclusive Resilience: Inclusion Matters for Resilience in South Asia* is the result of analytical work initiated to enhance social inclusion in DRM in South Asia for improved resilience outcomes for *all*.** Five projects were chosen to pilot this approach, in select DRM focus areas, in five South Asian countries: Bangladesh, India, Nepal, Pakistan, and Sri Lanka. These projects were representative of the highly demanded DRM interventions in the region (on the basis of a project portfolio analysis) and covered a range of topics across the DRM cycle of disaster mitigation, preparedness, response and recovery (figure ES.1).

For each country, an Inclusive Resilience Action Plan was developed that is replicable to a range of DRM projects with similar focus areas as well as applicable to different country and local contexts. The analytical work underpinning the Inclusive Resilience Action Plans was conducted in phases, starting with a literature review, key informant interviews (KIIs) with project stakeholders, and community-based rapid assessments (CBRAs) at project sites. These action plans—representing a menu of practical, meaningful actions that show *how* to ensure inclusion in DRM interventions—will keep growing as more is learned.

Figure ES.1 **Stages of the DRM Cycle and Corresponding Focus Areas of Selected Pilot Projects**



Source: ©World Bank. Further permission required for reuse.
Note: DRM = disaster risk management.

Ongoing Efforts to Address Social Inclusion in DRM

Globally, there has been a greater recognition of the need for DRM interventions to address issues of social exclusion. For example, the Sendai Framework for Disaster Risk Reduction 2015-2030 calls for disaster-related decision making to be inclusive as well as to promote gender-equitable and universally accessible approaches throughout the DRM cycles (UNDRR 2015). Across the five countries of focus for this analytical effort—Bangladesh, India, Nepal, Pakistan, and Sri Lanka—each government has formally acknowledged the need to address social inclusion and vulnerability in DRM-related policies and plans, including the following:

- ***Pakistan*** and ***India*** have each established a National Disaster Management Authority, which, among other DRM interventions, advances community-based DRM (CBDRM).
- ***Nepal*** created the National Reconstruction Authority, which has integrated special assistance for vulnerable groups during the reconstruction process (i.e., top-up grants), and promotion of female ownership of land and assets.
- ***Sri Lanka*** has introduced a set of DRM acts, policies, and plans to address the needs of vulnerable groups, including women, PwD, the elderly, and the poor.
- ***Bangladesh*** has demonstrated global leadership on disability-inclusive DRM through the 2015 Dhaka Declaration on Disability and Disaster Risk Management as well as the 2015 and 2018 Dhaka Conferences on Disability and Disaster Risk Management.

Yet, the need remains to translate these concepts and commitments on inclusive resilience—already expressed in high-level policies and plans—into actions. A sound approach would be to first identify and differentiate the needs of various vulnerable and marginalized groups and then to proactively empower and integrate their perspectives into DRM activities and interventions that ensure inclusive resilience for all.

Paths toward Inclusive Resilience

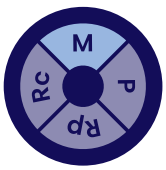
To support efforts to enhance social inclusivity of DRM interventions at the operational levels, Inclusive Resilience Actions Plans have been prepared through a consultative process. The report's objective is to enhance resilience outcomes for a wider group of beneficiaries, including those who have typically been socially excluded in the disaster context. The target audience of the report comprises policy makers and practitioners in the DRM and social development sectors—whether they represent the World Bank, government stakeholders, or civil society. The report aims to inform all those engaged in DRM project preparation, implementation, and policy making because they are the actors most able to bridge the implementation gap between the DRM policy principles on social inclusion and their outcomes *on the ground*. Therefore, the five Inclusive Resilience Action Plans (summarized in the Appendix) comprise practical entry points that can be integrated into existing projects without adding significant burden or resource implications. The consultative process followed to develop these action plans revealed key principles of inclusive resilience as well as entry points for enhancing social inclusion in the different stages of DRM cycle.

Key Principles for Inclusive Resilience

- Acknowledge and discuss social exclusion issues in the context of DRM.
- Understand the differential needs and experiences of excluded groups.
- Mainstream social inclusion into the DRM legal and policy frameworks.
- Develop the knowledge and evidence base required for effective policy-making and programming.
- Strengthen the capacity of relevant authorities engaged in DRM activities.
- Engage communities at every stage of DRM projects, and make decision-making processes inclusive.
- Leverage emerging technologies to explore opportunities for advancing the inclusion agenda in DRM.
- Join the cause to raise awareness of inclusive resilience.

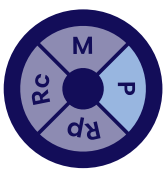
Figure ES.2 High-level Entry Points for Inclusive Resilience, by Stage of the DRM Cycle

MITIGATION



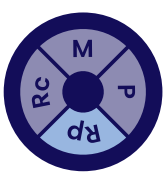
- Engage communities across the planning, design, construction, and maintenance of disaster mitigation infrastructure and buildings.
- Leverage resettlement opportunities associated with infrastructure-oriented projects to enhance the safety and resilience of the affected and at-risk communities.

PREPAREDNESS



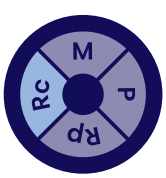
- Design inclusive preparedness actions to make the response activities inclusive as well.
- Improve the inclusiveness and diversity of the local disaster management authorities, groups, and teams to better assist local communities.
- Design and implement early warning systems to enhance outreach as well as accessibility and usability according to varying needs of different users.
- Develop a georeferenced social registry that lists the community's most vulnerable people to facilitate effective, timely evacuation assistance and rescue services as well as post-disaster assistance.
- Adopt and implement a holistic approach to community-based disaster risk management, and use it as an opportunity for long-term integration of community voices and participation along the DRM cycle.
- Adopt evacuation drills as part of community cultures and events to effectively foster the culture of resilience in the community.

RESPONSE



- Make evacuation assistance available to anyone who needs it.
- Ensure inclusive physical and social access to emergency evacuation sites and shelters.
- Ensure equal and inclusive access to emergency services during disasters.

RECOVERY



- Address the impact of social exclusion in post-disaster needs assessments (PDNAs).
- Identify the varying recovery assistance needs of marginalized groups, and integrate them into the recovery plans and budget allocations.
- Ensure inclusive access to post-disaster recovery assistance for those in need, and make additional support available for the most vulnerable people.
- Build the capacity of people involved in delivering recovery assistance services on the ground to more effectively serve marginalized people during the reconstruction process.
- Support both physical and social recoveries to restore people's lives.

Mainstreaming Inclusive Resilience in South Asia: A Way Forward

To ensure that climate and disaster resilience interventions truly benefit all people requires inclusive resilience approaches that reflect a nuanced understanding of people's diverse needs and capabilities, especially those of the marginalized. In general, these approaches must (a) understand and address the unique ways in which disasters affect socially excluded groups and individuals who are disadvantaged based on their identities; and (b) empower the unique abilities of socially excluded groups to contribute to DRM and the resilience of their communities.

To make resilience truly for all, DRM and social development practitioners must be equipped to incorporate social inclusion into the design and implementation of DRM projects from the outset. This would help ensure that resilience measures account for the needs of the socially excluded while also empowering them to contribute their strengths toward deepening the project's impacts for all beneficiaries.

The aim of this report is to enhance DRM project outcomes for a wider group of beneficiaries who have typically been socially excluded in disaster contexts. The analytical work underpinning the report revealed numerous entry points for mainstreaming inclusive resilience in the most highly demanded DRM project activities in the South Asia region. These approaches can be replicated in other DRM projects with similar focus areas as well as in other local contexts. However, the actions and entry points identified are not necessarily comprehensive because this study does not cover all the DRM topics or country contexts of South Asia. Yet they still serve collectively as a valuable guide to other countries and projects that are dealing with similar challenges in the DRM space. As the knowledge and evidence base for inclusive resilience grows, so too will the opportunities to improve inclusion across various DRM focus areas specific to a particular country, locale, or project context.

Sri Lanka | Early Warning Systems and Flood Embankments

Sri Lanka: Climate Resilience Multiphase Programmatic Approach

- Effective early warning systems and disaster mitigation investments are critical to prepare and defend communities against extreme climate events.
- Issues of exclusion in early warning systems affect the ability of marginalized groups to receive messages on time and take appropriate actions.
- Construction of disaster risk mitigation infrastructure may at times lead to adverse social impacts (for example, land taking) which could potentially exacerbate the vulnerability of already excluded groups.
- Entry points to strengthen inclusiveness include (a) enhanced outreach and "disaster literacy" regarding early warning systems, (b) development of disaster-responsive social registries, and (c) community engagement in the design, construction, and maintenance of physical infrastructure.

The island nation of Sri Lanka is persistently threatened by large-scale natural disasters including floods, landslides, droughts, and tsunamis. To address these risks, the proposed Climate Resilience Multiphase Programmatic Approach (CRes MPA) Phase I project seeks to establish (a) weather and climate forecasting and early warning systems, and (b) flood protection infrastructure in the lower Kelani River Basin.

Issues of exclusion, especially the relatively high disability rate, gender inequality, poverty, and ethnic and regional disparities, have ramifications for DRM. Early warning systems such as public service announcements are not geared toward warning people with visual or hearing impairments, and evacuation shelters or camps typically lack the appropriate facilities to accommodate the needs of PwD. Women often face difficulties in evacuating because of their care responsibilities, but the laborious task of restoring the household after a disaster tends to also fall on women. Further, disaster mitigation infrastructure such as flood embankments risk exclusion because the impacts are not uniform, and the adverse impacts (e.g., land acquisition and resettlement) may even exacerbate the vulnerability of the worst off.

The Inclusive Resilience Action Plan for Sri Lanka includes some practical measures to improve the inclusiveness of both its early warning systems and its flood risk mitigation infrastructure:

- Designing and implementing early warning systems to increase outreach to socially excluded groups and individuals
- Building community capacity to better understand and use early warning information
- Developing a disaster-responsive social registry of vulnerable people
- Engaging communities to be part of the design, construction, and maintenance of flood risk mitigation infrastructure such as embankments
- Adopting an objective resettlement assistance plan to nurture social inclusion throughout any resettlement process resulting from the construction of mitigation infrastructure.

Bangladesh | Agrometeorological Advisories and Products

Bangladesh: Weather and Climate Services Regional Project

- Extreme weather events disproportionately affect the poor and vulnerable largely because of their reliance on agriculture, fisheries, and livestock.
- Agrometeorological (agromet) services risk exclusion based on literacy levels, gender, poverty, landownership status, age, disability, and ethnic identity.
- Entry points for inclusion in agromet services are (a) customizing agromet information to the needs of excluded farmer groups, (b) enhancing the "disaster literacy" of excluded groups, and (c) establishing feedback mechanisms to improve the agromet systems as well as enhance local ownership.

Located at the delta of three major river basin systems, Bangladesh is extremely vulnerable to climate events such as tropical cyclones, floods, severe thunderstorms, and drought. These events have significant social and economic impacts, particularly on some of the country's poorest and most vulnerable communities, which continue to rely mainly on agriculture, fisheries, and livestock. Further, these communities live in diverse agroclimatic zones, and their vulnerability has only increased with climate change.

One of the aims of the Bangladesh Weather and Climate Services Regional Project (BWCSRP) is to support awareness building and dissemination of agrometeorological (agromet) advisories and products to farming communities. Based on the detailed farmers' needs assessment, the BWCSRP is introducing multiple data collection, communication, and information dissemination channels to farming communities—including automatic rain gauges; agromet display boards at union parishad (union, or rural, council) locations; kiosks; mobile apps and roving seminars; and two-way communications between the government and farmers. Even with all these efforts, there are people who have limited access to this information based on persistent social vulnerabilities and exclusions related to illiteracy, gender, age, disability, ethnic background, geographical location, or economic status linked to landownership. Further, the intersectionalities between one or more of these factors compound many individuals' vulnerabilities.

The Inclusive Resilience Action Plan for Bangladesh identified the following ways to make agromet advisories and products more available to different groups of farmers:

- Customizing the agromet information and communication system to effectively deliver information and messages to socially excluded farmer groups according to appropriate methods and timing
- Organizing capacity-building programs to enhance the "disaster literacy" of excluded groups and leverage the agromet information and services provided
- Establishing regular feedback mechanisms for continuously improving agromet and early warning information dissemination.

India | Multipurpose Cyclone Shelters

India: National Cyclone Risk Mitigation Project

- Extreme weather events, especially cyclones and floods, often force the poorest and most vulnerable to evacuate to shelters that may not always meet their needs.
- Multipurpose cyclone shelters, lacking ramps or other amenities for women or families, can further exclude already marginalized groups.
- Entry points for inclusiveness include (a) accessible shelter design and location; (b) improved information systems to prioritize evacuation of the most vulnerable; and (c) increased community engagement and inclusive representation in shelter use, knowledge, and management.

Of India's 7,500-kilometer coastline, almost 5,700 kilometers are highly vulnerable to impacts of tropical cyclones and related hydrometeorological hazards and consequently to the recurrent loss of life and property from these events. In response to these threats, the two phases of the National Cyclone Risk Mitigation Project, spanning nearly a decade, have, among other things, strengthened vulnerable infrastructure along coastlines and built multiple-purpose cyclone shelters (MPCSs) that people can use not only for evacuation during disasters but also for community activities during normal times.

The MPCSs have been found to be fairly inclusive, but additional improvements could ensure that the diverse needs of different user groups are met, both before and after evacuation. For example, in West Bengal, it was reportedly difficult to evacuate the elderly, the pregnant women, and the disabled in time because of a lack of readily available information on their numbers and locations. Lack of guidance (such as signboards) or transportation makes it difficult for individuals, especially those with mobility constraints, to reach the MPCSs safely. Once there, people reported discrimination in gaining access to MPCSs based on their economic or social status (such as caste) or even their political allegiance. Other MPCSs reportedly lacked adequate facilities, especially to attend to women's menstrual hygiene needs.

To ensure that MPCSs are designed inclusively to meet the needs of the most vulnerable, the Inclusive Action Plan for India recommends the following, among others:

- Improving information systems (for example, developing georeferenced social registries) to help prioritize and facilitate evacuation of the most vulnerable
- Making the location, design, and facilities of MPCSs accessible to improve their inclusiveness
- Fostering community ownership of the shelters to ensure their effective management
- Increasing the inclusiveness of local disaster management teams (DMTs) and Cyclone Shelter Management and Maintenance Committees (CSMMCs) to ensure the voice, participation, and decision making of all.

Nepal | Housing Reconstruction

Nepal: Earthquake Housing Reconstruction Project

- Extreme weather events such as earthquakes require people to navigate post-disaster assistance processes to rebuild.
- The socially excluded face disproportionate challenges in seeking and receiving post-disaster assistance because of literacy rates, landownership issues, and disability.
- Entry points to maximize inclusive reconstruction outcomes include (a) broadening eligibility for post-disaster assistance, (b) providing proactive reconstruction support to vulnerable groups, and (c) building government capacity to better help vulnerable groups to navigate post-disaster assistance processes.

In 2015, a 7.8 magnitude earthquake struck Nepal, resulting in widespread damage to rural houses and significant impacts on the poor. The Earthquake Housing Reconstruction Project (EHRP) seeks to restore affected houses with multi-hazard-resistant core housing units by providing the eligible households with cash grants of up to NPR 300,000 (about US$3,000) and to enhance long-term disaster resilience across the country.

Additionally, for the 18,505 people identified as being "vulnerable," and thus requiring more support during recovery, a top-up grant of NPR 50,000 (about US$500) was provided. The government also introduced a series of policy measures, including the Reconstruction and Rehabilitation Policy (2016), the Post-Disaster Recovery Framework, and the Disaster Risk Reduction Management Act (2017)—which together provided special assistance plans and programs for women, children, the poor, the elderly, PwD, and other marginalized caste and ethnic groups.

Despite these efforts, vulnerable groups have found it difficult to benefit from the reconstruction processes and exert agency in rebuilding their homes. Since the EHRP works on an owner-driven housing concept, the main challenge has been the owners' lack of capacity to rebuild their homes, both financially and in terms of the human resources. Further, the identification of vulnerable beneficiaries has been affected by the definitional constraints as well as the limited capacity of local government authorities to identify and recommend beneficiaries for additional support.

The Inclusive Resilience Action Plan for Nepal includes some practical ways to improve inclusive resilience in housing reconstruction:

- Making housing support more inclusive by broadening the vulnerability criteria for deploying special assistance packages
- Augmenting the capacity of government officials to effectively serve socially excluded groups
- Providing livelihood support to strengthen economic recovery of vulnerable groups alongside housing reconstruction.

Pakistan | Community-Based Disaster Risk Management

Pakistan: Sindh Resilience Project

- There are significant opportunities for addressing social exclusion throughout the DRM planning cycle.
- Pre-existing factors of social exclusion in a community can manifest within community-level DRM planning and inadequately address the needs of marginalized populations.
- Entry points to strengthen Community-Based Disaster Risk Management (CBDRM) include (a) adoption of a holistic approach to CBDRM and using it to integrate communities across the DRM cycle; (b) outreach through non-traditional channels to engage traditionally socially excluded groups, and (c) redesigned CBDRM trainings that reflect the identified needs and constraints of excluded groups.

Pakistan's Sindh Province is prone to riverine floods and droughts, which have caused extensive damage to rural villages and urban areas. To mitigate the risks faced by these communities, the Sindh Resilience Project seeks to strengthen the government's capacity to mitigate flood and drought risks while implementing a Community-Based Disaster Risk Management (CBDRM) approach. Broadly, CBDRM calls for people who are vulnerable to or affected by disasters to actively engage in the identification, analysis, management, monitoring, and evaluation of DRM interventions.

Despite the objective to apply inclusive approach through CBDRM, integrated decision-making processes have been affected by exclusionary factors such as gender, kinship, and landownership. For example, lack of kinship ties and landownership often leaves marginalized groups out of decision-making processes. Access to political power is a function of kinship ties and landownership, with landowners able to access public services, including DRM-related services, more easily than others. Patriarchal social norms, including the practice of purdah (female seclusion), restricts women's mobility in the public domain and leads to gaps in women's access to essential services as well as in their ability to participate in community activities such as CBDRM.

To better address these issues, the Inclusive Resilience Action Plan for Pakistan recommends several measures to make CBDRM more inclusive:

- Adopting a more holistic approach to CBDRM and using it as an opportunity for long-term integration of the community along the DRM cycle
- Strengthening and enhancing inclusive outreach to and within communities
- Improving CBDRM training content and delivery methods by engaging communities in the development of training materials such that outcomes of the training are truly inclusive.

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Inclusive Resilience

Framing the Issue

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Why Inclusion Matters for Resilience in South Asia

South Asia is one of the world's most vulnerable regions to the impacts of natural hazards, particularly climate-induced extremes. Almost half of South Asia's population currently lives in areas that are projected to become moderate to severe climate hot spots by 2050 (Mani et al. 2018). South Asia also joins Sub-Saharan Africa as the regions most vulnerable to climate-induced consequences such as increased poverty, agricultural prices, disease, and child mortality (Hallegatte et al. 2016).

Research shows that poor people suffer disproportionately from natural hazards and climate-change-induced events. These groups tend to live in higher-risk areas, which increases their exposure and vulnerability to natural hazards and climate-related shocks. They tend to have fewer resources to rely on to prevent, cope with, and adapt to such events (Hallegatte et al. 2016)—often because they lack support from their families, communities, governments, financial systems, and even the social safety net systems intended to help them cope.

The World Bank's flagship report on social inclusion, *Inclusion Matters: The Foundation for Shared Prosperity*, suggests that poverty tends to be concentrated among people with certain distinguishing characteristics that set them apart as socially excluded groups. These may be minorities, caste groups, indigenous people, female-headed households, or households including persons with disabilities (PwD), among others (World Bank 2013). Climate-related shocks and stresses have differential impacts on these groups according to their abilities and limitations, especially during the post-disaster recovery and reconstruction period. Disaster management and prevention strategies therefore must focus on the differential needs of and impacts on these vulnerable and excluded groups.

In South Asia, natural hazards disproportionately affect marginalized groups and thus jeopardize economic growth and development gains. A study of 141 countries from 1981 to 2002 indicates that natural disasters on average kill more women than men and, among the survivors, lower women's life expectancy

more than that of men (Neumayer and Plümper 2007). This is especially true among women of low socioeconomic status.

When different socially marginalized identities intersect—for example, when gender intersects with age, ethnicity, or a geographically isolated place of residence—the disadvantages faced by that person are multiplied. These intersectionalities affect the extent of impact as well as the individual's or household's ability to recover from disasters. For instance, in India's Odisha state, often hit by cyclones, female-headed households, particularly those belonging to excluded caste groups, must deal with notions of subordination to men because of patriarchal norms and "untouchable" status due to their caste. Together these factors place them at the bottom of the social hierarchy when they seek support to cope with disasters. Thus, it is not surprising that after a super cyclone hit Odisha in 1999, women from low-caste groups were the hardest hit because they lacked robust houses to shelter in and social networks to help them cope during the disaster (Ray-Bennett 2009).

The disproportionate impacts faced by the socially marginalized in the disaster context keep them in cycles of poverty, posing a major obstacle to poverty reduction strategies.[1] In other words, social exclusion has implications not just for resilience but also for achieving economic growth and prosperity for all. Therefore, disaster resilience cannot be built without social inclusion.

South Asian governments have put in place measures to address social inclusion and vulnerability in DRM-related policies and plans. Yet, although they have adopted *de jure* disaster risk management (DRM) policies, programs, and plans that commit to promoting social inclusion, there remains a need to implement *de facto* actions to ensure that the needs, capabilities, and voices of socially excluded groups are included in disaster risk planning, response, recovery, and preparedness activities.

To support governments' efforts to manage the evolving risks in the region, the World Bank's DRM portfolio in South Asia has grown

significantly, from US$1.4 billion in fiscal year (FY) 2012 to US$8.9 billion in FY2019.[2] The Bank's support includes not only structural mitigation measures but also assistance that helps governments invest in preparedness actions, improve institutional arrangements, and establish safety nets to mitigate the adverse impacts of disasters, particularly on the poor and marginalized. Inclusion in DRM is more than just supporting otherwise vulnerable and excluded groups as victims of disasters; it is also about empowering them based on their abilities so they can better contribute to strengthening the resilience of their communities and societies. Together, the World Bank and South Asian governments are evolving their approach toward inclusive resilience.

1.2

Inclusive Resilience Efforts in South Asia

This analysis focuses on DRM activities in five countries—Bangladesh, India, Nepal, Pakistan, and Sri Lanka—that have already undertaken substantial inclusive resilience reforms. The five countries of focus already have laws, policies, and programs in place to address the needs of vulnerable groups during disasters. Therefore, they all clearly recognize the need to emphasize inclusion in formal ways, including the following:

- ***India*** issued a National Disaster Management Plan that recognizes the need to provide special attention to the elderly in a post-disaster situation.
- ***Bangladesh*** led the development of the Dhaka Declaration on Disability and Disaster Risk Management, adopted at the 2015 Dhaka Conference on Disability and Disaster Risk Management.
- ***Pakistan*** has a National Disaster Risk Reduction Policy that highlights the special attention needed to improve resilience of vulnerable groups including the elderly.
- ***Sri Lanka*** developed a National Policy on Disaster Management that acknowledges the importance of paying special attention to senior citizens under the section of "equality, diversity and inclusion."
- ***Nepal*** legally created the National Reconstruction Authority (NRA), which mandates the reconstruction of structures

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affected by disasters and recognizes the importance of addressing the concerns of marginalized groups.

However, there is a gap between *de jure* policy intent and *de facto* implementation of social inclusion. For example, findings from the Nepal case study underscore that the challenge of addressing social inclusion in the post-earthquake recovery context did not stem from a lack of laws, policies, or commitments at the national level. Rather, the challenge for the government and the development partners has been in translating these national-level policies and commitments into meaningful participation of vulnerable and marginalized groups in decision-making bodies and processes at both the national and local levels of government—and in ensuring that targeted efforts on the ground are addressing the particular vulnerabilities and needs faced by different groups. Incorporating the voices of marginalized populations in DRM processes, such as the elderly (see Box 1.1), empowers governments to not only anticipate the needs of different groups in the disaster context but also to understand their inherent capacities, which can be applied to better manage the disaster risks of a community.

BOX 1.1

The Elderly and Local Knowledge for Resilience

In 2012, Jacobabad district in Sindh Province, Pakistan, was completely submerged by flooding. Just before the floods, the communities noticed that the river's color was changing, so they contacted the district disaster management authorities to inform them of this traditional early warning sign. The authorities confirmed that floods were expected.

The older people's associations that had been trained by HelpAge International and been given digging materials mobilized the community to block the canals and divert the water. Because of their actions, 50 percent less water reached their villages than during previous floods.

Source: HelpAge International 2015.

1.3

Framing the Report's Approach

Understanding effective approaches and initiating actionable, inclusion-focused DRM interventions can help build more resilient societies. To facilitate this, the World Bank in 2018 initiated a regional analysis, "Mainstreaming Inclusive Resilience in South Asia," to identify effective actions, pilot ideas, and build the capacity of DRM and social development practitioners to work toward more inclusive DRM (World Bank 2020). This report, part of that regional initiative, provides an analysis as well as specific actions to operationalize the broader agenda of inclusion in the DRM sector through the World Bank-financed projects in South Asian countries. It starts with the premise laid out in the Bank's flagship report on social inclusion, *Inclusion Matters*, which underlines the importance of addressing the challenge of exclusion if the World Bank is to meet its goal of building shared prosperity for all people (World Bank 2013). It also capitalizes on the Inclusive Community Resilience initiative of the Global Facility for Disaster Reduction and Recovery (GFDRR) as well as other good precedents, including the "World Bank Group Gender Strategy (FY2016-23)" (World Bank 2015); the "Gender Action Plan 2016-2021" (GFDRR 2016); and the "Strategic Framework for Mainstreaming Citizen Engagement" (World Bank 2014).

This report draws on the conception of social inclusion as defined in the *Inclusion Matters* report. *Inclusion Matters* comprehensively reviews the concept of social inclusion and explains how individuals and groups are excluded or included based on their identity—including their gender, race, caste, age, ethnicity, religion, disability status, sexuality, political affiliation, class, human immunodeficiency virus (HIV) status, educational attainment, geographic location, and so on. It defines social inclusion in two ways: The first is a "broad sweep" definition to guide policy makers, which defines social inclusion as "the process of improving the terms for individuals and groups to take part in society." A second definition takes into account *how* the terms of social inclusion can be improved and *for whom*. Accordingly, this second conception articulates social inclusion as "the process of improving the ability,

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opportunity, and dignity of people, disadvantaged on the basis of their identity, to take part in society" (World Bank 2013, 3–4).

Using this framework, the report seeks to answer the following:

- Who tends to be affected the most when disasters occur in the region? Who is disproportionately affected by the impacts of climate change and natural disasters? Are groups who are otherwise excluded on the basis of their identity also worse off when it comes to accessing DRM assistance?
- How does exclusion undermine disaster preparedness, risk management, and response? Do these exclusion factors also affect poverty reduction and resilience? How are certain groups worse off, and why?
- What policies, programs, and frameworks are in place to include these groups in DRM activities? How do the project design and implementation arrangements increase inclusion and reduce or mitigate possible negative impacts on individuals and groups? Do these strategies work on the ground?
- How do formal and/or informal institutions mediate the impact of DRM-related policy and program implementation?
- If programs and projects are not yielding intended outcomes, what can be done to proactively incorporate social inclusion as part of existing DRM project components? What are the easy, quick wins? Which activities may take more time?

The report's objective is to enhance resilience outcomes for a wider group of beneficiaries, incorporating those who have typically been socially excluded in the disaster context. Its target audience comprises policy makers and practitioners in the DRM and social development sectors—whether they represent the World Bank, government stakeholders, or civil society. The report aims to inform all those engaged in DRM project preparation, implementation, and policy making because they are the actors most able to bridge the implementation gap between the DRM policy principles on

social inclusion and their outcomes *on the ground*. To help these stakeholders strengthen their approaches to inclusive resilience, the report identifies the needs of different vulnerable, marginalized groups based on project examples (encompassing different focus areas and different stages of the DRM cycle) and provides clear entry points for integrating their perspectives into DRM activities. By balancing the broader understanding of why inclusion matters in South Asia with concrete, project-specific actions, the report contributes to the translation of *de jure* intent into *de facto* actions. This will help make DRM project outcomes available to wide groups of people and promote inclusive resilience for all in society.

The inclusive resilience actions that DRM projects can undertake, as listed in this report, may be applicable to a range of DRM interventions in regions beyond South Asia. However, the identified actions and entry points are not exhaustive, and there is a need to expand this type of analysis to different types of DRM projects as well as to analyze the results of implementing such activities. The policies, practices and interventions on inclusive resilience will always be evolving. This report contributes to these iterative efforts to raise awareness about best practices for inclusive resilience as well as to better understand the lessons learned in advancing such efforts.

1.4

The Factors of Exclusion during and after Disasters

To answer the questions posed by this report requires an understanding of who gets excluded in the disaster context. This section highlights the primary factors of social exclusion in South Asia, which can be applicable to the vectors of exclusion found in other regions of the world—gender, ethnic or religious minority status, disability, age, sexual orientation and geographic remoteness and isolation. When individuals' identities intersect across one or more socially excluded groups, the adverse impacts facing such individuals in the disaster context can compound, making it even more difficult for them to access disaster assistance and support.

The case studies in Chapter 2 will explore these factors in more detail, examining the country- and project-level contexts in which these factors of social exclusion manifest. Chapter 2 will also provide guidance on how DRM interventions can implement inclusive resilience measures to mitigate adverse impacts on excluded groups and broaden the resilience benefits of the project.

Vectors of Exclusion in DRM: Women

- Social and cultural norms that reinforce gender roles and hierarchies and place restrictions on women's mobility
- Household and care responsibilities, including rescue and care for the elderly and children during disasters
- Limited asset ownership (of land, mobile devices, and so on)
- Unequal access to early warning messages and lack of participation in DRM planning processes
- Destruction of homes and economic livelihoods derived from home-based work
- Increased risks of gender-based violence (GBV) and other violence, especially in the post-disaster context

Women and Girls: Gender-Based Norms and Consequences

Women and girls tend to be disproportionately affected by some natural disasters owing to multiple factors that increase their vulnerability during and after such events. In Bangladesh, when Cyclone Gorky hit in 1991, women outnumbered men 14 to 1 among the dead as a result of cyclone-induced flooding. Similarly, three to four times more women than men lost their lives when the 2004 Indian Ocean earthquake and tsunami hit Indonesia (Oxfam 2005). However, some women are more vulnerable than others: subgroups of women such as single, widowed, or abandoned women as well as female-headed households tend to be more adversely affected than others. In Nepal, for example, women were the single most adversely affected group during the two 2015 earthquakes, with female-headed households constituting 26.5 percent of all affected households.

The disproportionate impact on women often results from cultural norms that restrict women to certain household roles, thereby limiting their mobility and increasing their vulnerability when disasters strike. These roles include caring for children, elders, or sick household members (GFDRR 2016). DRM processes, including the dissemination of early warning messages or development of DRM plans, often do not address women's specific needs. When struck by a disaster, in certain cultural contexts, women need permission or an escort to evacuate to a shelter even while they may be responsible for rescuing other family members. The destruction of homes during disasters also means loss of workplaces for women who depend on

home-based work. Under such circumstances, some women find it difficult to get access to relief and recovery assistance, especially when their access to financial and other assets, relief providers, or social networks that could facilitate their recovery are limited.

Global experience also indicates that disaster-induced displacement can increase the incidence of gender-based violence (GBV), both in initial temporary shelters and during prolonged displacement. Increases in human trafficking in the aftermath of past disasters also point toward the greater vulnerability of women and children specifically (Frank 2013). And, the economic shock triggered by disasters can also lead lower-income groups to turn to negative coping mechanisms such as transactional sex, which can have long-lasting deleterious impacts on these women and girls (IFRC 2015).

Although the impacts of disasters on women are well established, the strategies to address these gendered impacts are less so. Risk mitigation actions must address the varied needs of women versus those of their male counterparts. Equally, there is a need to recognize that women are not just passive victims but can be active agents for resilience. For example, in the devastating floods that hit the southern states of India in 2018, Kudumbashree—Kerala state's network of self-help groups led by women—was the primary responder helping the state clean up the debris and restore normalcy in regions affected by the disaster (Anandan 2018).

Ethnic, Religious, and Excluded Caste Groups: Deeply Rooted Inequalities

Social exclusion linked to caste, religion, and ethnicity is deeply rooted in many aspects of life in South Asia, and disasters can exacerbate these inequities. *Inclusion Matters* draws on existing research in South Asia to highlight how low-caste and minority religious groups in India are poorer than other groups (World Bank 2013).

Vectors of Exclusion in DRM: Ethnic and Religious Minorities and Excluded Castes

- Inequities rooted in cultural beliefs
- Higher prevalence of poverty due to their social standing
- Marginalized when seeking disaster assistance
- Lack of voice or participation in DRM planning

Research shows that people from excluded caste groups have unequal or limited access to clean water, shelter, health services, education, and jobs in the aftermath of disasters. The International Dalit Solidarity Network's "Equality in Aid" report, for example, suggests that around 260 million people in countries such as India, Pakistan, and Sri Lanka, among others, face caste-based prejudice and human rights violations in their everyday lives (IDSN 2013). Because of their social standing, individuals from these excluded groups are often excluded from DRM planning. Hence, a disaster like a flood or a drought worsens their plight: because of entrenched social hierarchies and discrimination, many do not get the same access as their higher-caste neighbors to emergency aid such as clean water, dry food rations, or shelter.

Ethnic minorities face disproportionate hurdles to respond to and recover from disasters, as several (of many) examples illustrate:

- *In Sri Lanka,* after the 2004 Indian Ocean earthquake and tsunami, displaced communities were refused food distribution in a camp because of their "low caste" status (HRW 2005). Other research indicates that the unequal distribution of post-tsunami assistance between the Sinhalese and Tamil communities contributed to increased tension between the tsunami-affected and the conflict-induced internally displaced persons (IDPs) in Sri Lanka (Ferris 2010).
- *In Pakistan,* the community-based rapid assessment (CBRA) undertaken for this analytical work revealed that rescue services during floods were concentrated in certain *goths* or *paras* (clusters of households of a particular kinship group) that were more privileged, at the cost of excluding socially marginalized groups who lived in other, more remote *paras*.
- *In India,* during Cyclone Fani in 2019, the compulsion to stick to caste-based occupations and the pressure to live in the most vulnerable parts of the village further marginalized farm laborers from Scheduled Castes (traditionally excluded castes) in Odisha and Tamil Nadu states during disaster relief (Jain 2019). Both Odisha

and Tamil Nadu, where Scheduled Castes account for 17 percent and 20 percent of the population, respectively—or 2.16 million people as of 2011—have recurrently been hit by cyclones.

Vectors of Exclusion in DRM: Persons with Disabilities

- Stigma and discrimination against PwD
- Wide range of disabilities with unique individual abilities and characteristics (such as mental, physical, visual, and aural disabilities)
- Intersectionalities and interrelationships between disability and other factors of exclusion that multiply the disadvantage
- Lack of engagement or meaningful participation of PwD in DRM stages
- Support to PwD often viewed from the perspective of charity or benevolence, and their inclusion often addressed in high-level policy documents only

Persons with Disabilities: At Risk from Commitments with Limited Action

Persons with disabilities (PwD) have diverse characteristics and abilities, but practices on the ground that address their needs and perspectives are difficult to come by. PwD include people with a wide range of disabilities, including physical disabilities; vision, hearing, and speech impairments; cognitive disabilities; and psychosocial disabilities. The DRM sector often addresses the inclusion of PwD in high-level policy documents, but it is rare to find practices on the ground that address their detailed needs and perspectives. When a disaster strikes, aspects of their disabilities make them particularly vulnerable, and their needs have not been planned for in disaster response and recovery planning. Following the 2011 Great East Japan earthquake and tsunami, the fatality rate for PwD was up to four times higher than that of the general population (UNESCAP 2015).

The intersectionality of disability with age, race, ethnicity, sex, gender, religion, sexual orientation, socioeconomic status, and other identities can multiply the types and degrees of stigma, discrimination, and disadvantage that PwD experience. Particularly powerful is the interrelationship between disability and poverty. Disability is a risk factor for poverty and vice versa. Further, in the context of disasters, PwD experience multiple challenges during disasters, including lack of access to early warning messages and relief support, inability to evacuate on time, and dependence on others for support, to name a few. An assessment performed after the 2015 Nepal earthquake, for example, discovered substantial challenges faced by PwD compared with other marginalized groups,

including physical barriers, obstacles to communication, and other barriers to access essential services (Lord et al. 2016).

Despite ongoing efforts to promote disability-inclusive DRM, it is not easy to comprehensively capture the needs of PwD, which vary given their unique individual abilities and characteristics. Further, support to PWD is often viewed from the perspective of "charity," and much more remains to be done to ensure that PwD are empowered to be active participants in all phases of DRM and that proactive measures are taken (GFDRR 2017).

Vectors of Exclusion in DRM: The Elderly

- Limited mobility due to physical and sensory decline or health status
- Age-related factors exacerbated by gender inequality, poverty, and social isolation
- Stigma against physical ailments such as dementia
- Heterogeneity among the elderly, who have different capacities and unique needs

The Elderly: Vulnerable and Knowledgeable

Age-related challenges of physical and sensory decline multiplied by other factors, including gender inequality, poverty, and social isolation means that the elderly population are disproportionately affected by natural disasters. Seventy-five percent of those who died from Hurricane Katrina in the United States in 2005 were over 60, although that age group accounted for just 15 percent of the population of New Orleans, which saw the worst of the hurricane (US Executive Office of the President 2006). In the Great East Japan Earthquake (2011), 56 percent of those who died were 65 and over although that age group made up just 23 percent of the population (UNDRR 2016). Those affected included elderly people who were trapped in collapsed homes as well as those who suffered from chronic illness and lost access to medications and necessary equipment during and after the disaster. The elderly are also more likely to experience severe cognitive psychological stress upon loss of their belongings and property. However, the elderly population is not a homogeneous group, and their needs and capacities are diverse.

Data are limited on how disasters affect the elderly, which undermines their inclusion in DRM planning. In South Asia, for example, older women generally have fewer financial resources to rebuild their lives after a disaster for any number of reasons: their role

as informal caregivers for their families, absent or reduced earnings, limited access to financial services, increased social isolation, and other forms of discrimination (Chan 2019; Childers 1999; HelpAge International 2013, 2014; WHO 2007). Ailments caused by physical and sensory decline, such as dementia, are highly stigmatized and efforts to address the unique needs of such populations virtually missing (Hossain et al. 2018; Prince et al. 2015). Despite these hurdles, the knowledge, experience, and skills of the elderly gained from past disasters can be leveraged for more effective DRM interventions.

Vectors of Exclusion in DRM: The Poor

- Often forced to live in hazard-prone areas in informally constructed and unsafe housing
- May lack education and literacy
- Often lack a voice in official decision-making processes
- May lack official identification, which inhibits access to services
- Often have overlapping marginalized identities

The Poor: Lacking the Essential Resources to Cope

Income and wealth shape the extent to an individual or household can cope with disasters and recover from them. Global studies have established a strong link between poverty and climate vulnerability, linking the aims of disaster mitigation and poverty reduction. This is because the poor are often forced to live in areas susceptible to hazard risks and have limited savings and resources to draw upon to prepare for, respond to, and recover from disasters. Adding to this vulnerability is that the poor often lack identification or a means to prove their existence and status, which inhibits their ability to access post-disaster assistance. The general lack of access to essential services can result in poor health and educational outcomes, which can reinforce poverty. Further, the poor are less likely than middle- and high-income individuals to be included in official policy-making and local government decision-making processes. When poverty intersects with other marginalized identifies, the disaster impacts can be amplified, leading to greater loss of life and more adverse, longer-lasting economic and social impacts (Sarker and Jie 2017).

Vectors of Exclusion in DRM: Geography and Location

- Hazard-prone locations, vulnerable to frequent disasters including flooding and other events
- Residents generally include poor and excluded groups
- Isolation from government services, support, and official communications
- Difficulties in catering assistance and services to, including during emergencies

Those Who Live Remotely: Risk Factors from Geography and Location

Geography and location can also serve as an axis of exclusion. In 2018, the floods that devastated India's southern state of Kerala did maximum damage to the state's hilly districts, which house many remote and inaccessible tribal settlements. In Pakistan's Sindh Province, the more-excluded identity groups—for example, the *Mallahs*, or the fishing communities—tend to live in the geographically vulnerable and unprotected (*Katcho*) areas of the floodplains that are vulnerable to natural disasters such as floods.

The poor and excluded tend to live in these precarious places because they cannot afford lands in prime locations. Thus, their vulnerability on account of geography is also a result of their exclusion. The weak or limited government presence in these remote locations also has a bearing on these populations' ability to benefit from or even to have a voice in DRM interventions. In Nepal, the damages to ethnic groups such as *Janajati* (indigenous) communities living in the remote hills were difficult to assess in the immediate aftermath of the 2015 earthquake because the roads to these areas were damaged. Lack of information on these groups, coupled with limited communication with them, affected the government's ability to send relief materials to them in a timely manner.

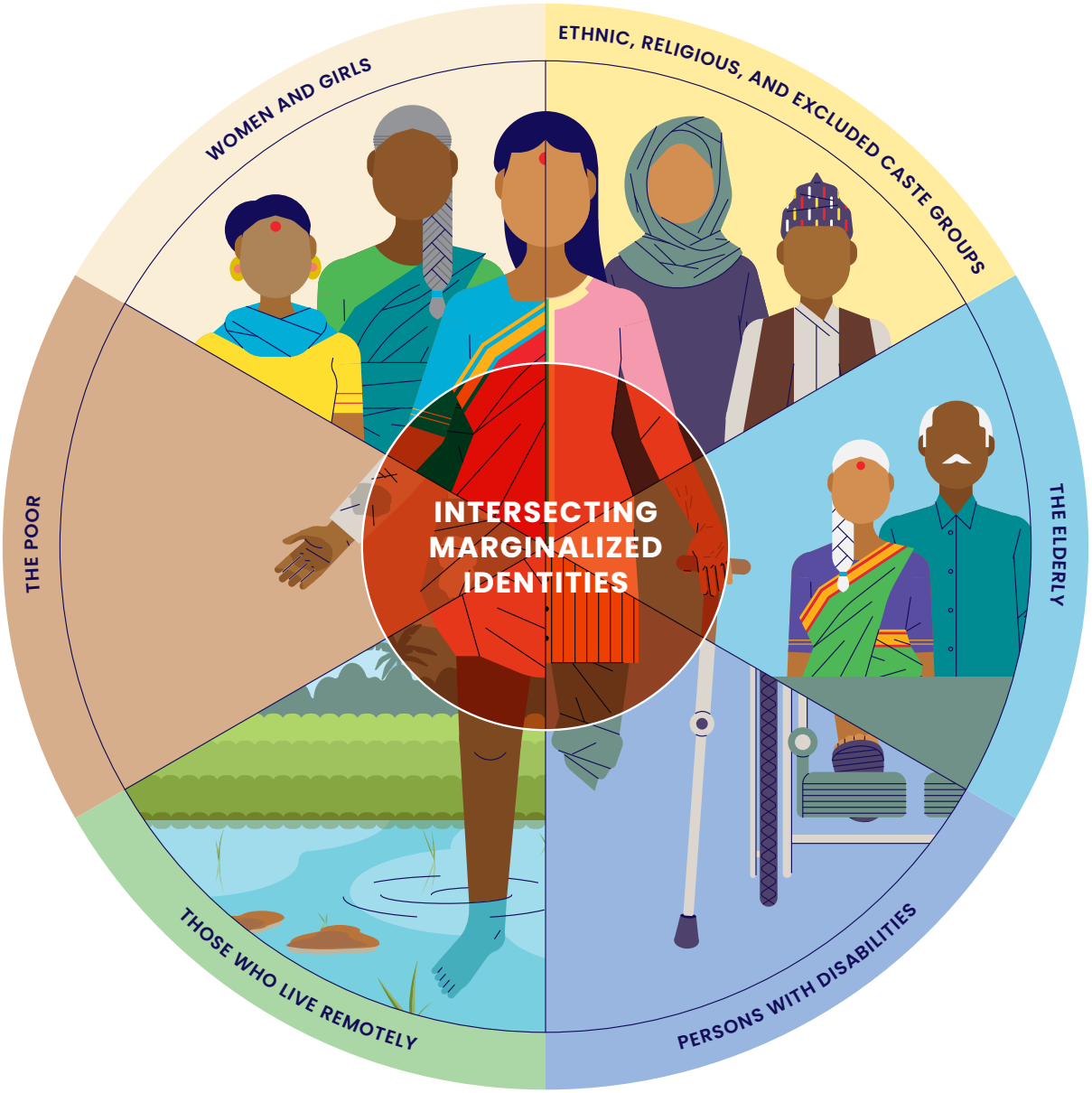
Intersecting Marginalized Identities

The intersection of different disadvantages exacerbates exclusion in the disaster context. For example, even among the traditionally excluded caste groups or ethnic minorities, those who have less education tend to have lower awareness of disaster risk mitigation measures such as early warning systems or agrometeorological services. Similarly, when caste or ethnic identity interacts with gender, adverse outcomes can worsen. Prevailing patriarchal norms among particular religious and ethnic groups in Sri Lanka, for example, come

in the way of assessing post-disaster damages for women. Experiences with floods in the Kelani River Basin in Sri Lanka suggest that Muslim women living alone cannot be visited for a damage assessment unless the surveyors are accompanied by Muslim men. It is also difficult for Muslim women to step out of their homes to participate in early warning communications and disaster relief activities.

Several case studies highlight how multiple marginalized identities interact and compound adverse disaster impacts (figure 1.1). The case studies from India and Pakistan indicate the multiple levels of exclusion faced by India's Dalit women and women from historically marginalized communities such as those in Pakistan's non-Muslim Bheel tribe living in flood embankment areas. Intrahousehold inequities also tend to come to the forefront during disasters. For example, in Pakistan, decisions to evacuate during floods are mostly made by men. While women may want to evacuate earlier to save their assets, men may feel bound by community honor to stay behind. In Sri Lanka, certain groups such as women and children with disabilities, or women who are single or heading their households, are less educated and have poorer access to social networks, leaving them particularly vulnerable when disasters strike (CBM Australia 2014).

Figure 1.1 **Intersectionality of Multiple Identities**

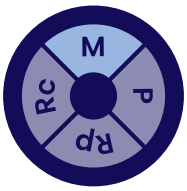


Source: Adapted from World Bank (2013). ©World Bank. Further permission required for reuse.

1.5

Social Exclusion across the Disaster Risk Management Cycle

While the whole of society faces challenges due to natural disasters and climate change impacts, the vulnerable are differentially affected, and their prevalent exclusions are exacerbated. Case studies across the globe and in South Asia are compelling enough to acknowledge the increased challenges faced by excluded groups, as noted earlier. Exclusion of certain groups across countries and contexts is usually underpinned by norms or belief systems that lead to stereotypes, prejudices, and stigmas about these groups, which can be overcome by mainstreaming social inclusion in development, including in DRM and climate-change-related interventions. To mainstream social inclusion in DRM requires a thorough understanding of the factors of social exclusion and how they interact across the DRM cycle. Because DRM activities cut across different stages, the DRM cycle—from mitigation to preparedness, response, and recovery—offers a helpful way to frame social exclusion and the underpinning stereotypes, challenges, and needs facing excluded groups within the disaster cycle.



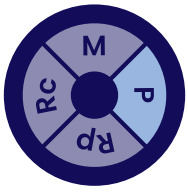
Mitigation

Disaster mitigation measures help eliminate or reduce the impacts and risks of hazards through proactive measures taken before a disaster occurs. They often include structural or physical improvements including promotion of sound land-use planning based on known hazards, relocation or elevation of structures out of floodplains, or engineering of roads and bridges to withstand earthquakes.

Although structural mitigation measures are critically important to the safety and well-being of populations susceptible to disaster risks, there is often a disconnect between these physical structures and the unique and diverse social needs of the people who interact with them daily. In practice, this often means that the infrastructure development and building design have not adequately reflected the voices and needs of the people who use and are affected by these structures. Further, such physical mitigation measures often

require the most disaster-prone populations—who also tend to be the most marginalized and vulnerable—to be relocated, which can exacerbate their social exclusion, lack of agency, and vulnerability. If the voices of the marginalized are not proactively sought to include in the planning of disaster mitigation infrastructure, these interventions may unintentionally exclude users' needs (such as safety lighting and accessible design features). For example, in Pakistan, the opportunities for women to articulate their independent concerns, interests, and voices regarding DRM planning, including in mitigation planning, are restricted by the gendered structure of settlements, with many women facing restrictions on their mobility and not being allowed to access public spaces on their own.

Therefore, community engagement efforts must actively seek representation from a variety of individuals—especially the traditionally excluded—throughout the design, construction, and maintenance processes of structural interventions. This will help to ensure that mitigation investments address the users' varying needs and foster a sense of community ownership that supports the long-term sustainability of the asset. The Sri Lanka case study in Chapter 2 will highlight the social exclusion factors facing a flood embankment project and provide recommended entry points for how these can be addressed.



Preparedness

Disaster preparedness measures are taken to prepare for and reduce the effects of disasters. They help predict and, where possible, prevent disasters and mitigate their impact on vulnerable populations. Disaster preparedness is a continuous and integrated process that, when embedded with mitigation measures, can either prevent disaster situations or save the maximum number of lives and livelihoods during a disaster situation.[3] However, if preparedness planning and systems do not factor in the needs and voices of the socially excluded, they will unintentionally overlook

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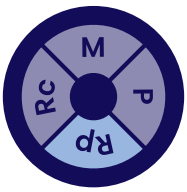
the unique ways the marginalized can be empowered and contribute to preparedness—or worse, result in further exclusion by leaving out critical lifesaving considerations for marginalized groups.

Community-based disaster risk management (CBDRM) is a good bottom-up preparedness mechanism for empowering communities to build resilience, prepare for disasters, and plan for disaster recovery. CBDRM can work well as a complement to top-down, government-led DRM approaches. The strong benefit of community-organized DRM activities is that they reflect a deep understanding of the community's own hazards and vulnerabilities. Yet, social exclusion within a community—in terms of whose voices are prioritized, or not prioritized—can manifest in community-level DRM planning and post-disaster outcomes that further marginalize the socially excluded. For example, in Pakistan, owing to patriarchal norms, some women face restricted mobility that can inhibit their ability to evacuate after a disaster or seek post-disaster assistance. Therefore, DRM planning activities, including CBDRM, must proactively seek to accurately represent all the voices within a community and incorporate their needs into planning processes. The Pakistan case study in Chapter 2 will highlight the factors of social exclusion facing a CBDRM project and provide recommended entry points for how social inclusion can be addressed.

Early warning systems constitute another important preparedness mechanism. Information dissemination and early warning systems play an important role in helping the public prepare to take appropriate and timely actions to mitigate disaster impacts for themselves and their households. Incorporating the needs of the most vulnerable by delivering early warning messages tailored to the hearing, visual, and physical needs of a range of groups is a challenge even for high-income countries. However, delivering these messages in ways that meet the recipients' varying needs is critical to enable those with disabilities or other needs, to evacuate in a timely manner. Those who are illiterate or are from migrant communities and/or ethnic minorities who do not speak the official language face similar barriers,

in that the typical early warning messaging is not designed to meet their needs. Patriarchal norms in South Asian countries are another barrier to widespread adherence to early warning messages, which tend to be passed through the local leaders, who are typically men. In turn, these local leaders may spread information only to a select few by word of mouth, thereby deepening the existing systems of kinship and patronage while keeping the most vulnerable, particularly women, excluded from information sharing. For a deeper look at how social exclusion manifests at the preparedness stage, see the Bangladesh and Sri Lanka case studies in Chapter 2, which explore the exclusion factors facing an agrometeorological early warning system and disaster early warning system, respectively, and highlight entry points for how social inclusion approaches can be strengthened.



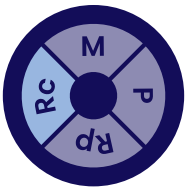
Response

Disaster response measures refer to the immediate assistance provided in the aftermath of a disaster. Response activities include evacuation to designated shelters, search-and-rescue operations, and assessment of post-disaster damage. Response activities aim to provide assistance that maintains life, improves health, and supports the mental and emotional health of the affected population.

The socially marginalized face additional hurdles when seeking to respond to a disaster (such as to evacuate) in a timely manner and to a safe location. Women may lack the agency to determine when to evacuate, or their ability to evacuate may be limited because of their role as a primary caretaker for children or elderly family members. For example, owning to patriarchal norms, Muslim women in Sri Lanka and Pakistan face restrictions to their mobility and often cannot leave their settlements without permission from the head of the household. Those who are physically disabled may require additional support to evacuate and will face further barriers if the shelter they evacuate to is not accessibly designed. Certain groups of people face other forms of exclusion when seeking to enter evacuation shelters:

incidents of discrimination at evacuation shelters against people from traditionally excluded caste groups reflect prevalent negative perceptions by other caste groups, which can inhibit the access of excluded caste groups to shelter amenities or other resources.

Although many response interventions invest in equipment and capacity building for governments and other relevant stakeholders, it is critical to prioritize investment in people's ability to build their own response capacity. For example, in India, evacuation exercises demonstrated significant lifesaving impacts (Kumar, Gettleman, and Yasir 2019), yet people still face challenges in evacuating depending on their access to resources, their social status, or representation of their voices in evacuation planning. The India case study in Chapter 2 explores the factors of social exclusion at play in a multipurpose cyclone shelter project and the ways that these can be overcome through strengthened inclusive resilience approaches.



Recovery

Post-disaster recovery efforts focus on restoring, rebuilding, and revitalizing the physical, social, and economic fabric of an affected community. The disaster recovery phase often overlaps with the response phase, occurring while response activities are still taking place. Disaster recovery activities include housing reconstruction, post-disaster economic development and livelihood support programs, and perhaps training programs for the skills required to rebuild homes and infrastructure.

During the recovery stage, resource- and access-based exclusions can be exacerbated when the socially excluded seek post-disaster assistance for rebuilding their lives. For example, in Sri Lanka, after the 2004 Indian Ocean tsunami, gender biases prevented women from getting land titles, which made it challenging, particularly for widows, to access reconstruction assistance because they lacked proof of land ownership. In Nepal, many female-headed households had to produce

citizenship certificates to receive grants to reconstruct their houses; not all women possessed such certificates, especially unmarried or divorced women. Further, only individuals possessing red (complete disability) and blue (severe disability) cards received top-up housing grants for reconstruction after the earthquake. Those with yellow (partial disability) cards were not considered eligible despite their disability.

In many cases, lack of access to government documentation, such as ID cards or certificates, can amplify exclusion in accessing relief measures. In Bangladesh, the inability of indigenous groups to prove ownership over their traditional lands meant that they cannot access relief services that require proof of residence as a criterion for access. Similarly, those who do not have computerized national identity cards (CNICs) in Pakistan have been known to be turned away from flood relief camps. The Nepal case study explores the factors of exclusion facing a housing reconstruction project and the actions that can address these challenges to achieve more inclusive and resilient outcomes.

1.6

What to Expect from the Report

The aforementioned framing of exclusion provides a foundation for examining how exclusion manifests itself in the disaster context as well as on the ground at the DRM project levels, depending on the specific country contexts. Understanding the nuanced ways in which social exclusion can inhibit inclusive resilience outcomes is an important step toward identifying which actions can promote inclusive resilience. Accordingly, Chapter 2 will present the underpinnings for how projects' activities of focus were selected to examine their factors of social exclusion. The detailed case studies analyze project activities, the factors of social exclusion, and project-specific recommended actions to address these factors and promote inclusive resilience. Chapter 3 includes high-level recommendations for how inclusive resilience can be applied and implemented across the DRM cycle and also a proposed path forward for advancing the inclusive resilience agenda.

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While the report covers only select DRM topics, the action plans and recommendations have been designed to apply more broadly to other DRM topics and different social contexts. Some of the limitations of this report are therefore based on the finite set of communities and project- and context-specific factors examined for this analysis. The available disaggregated data are also quite limited for marginalized groups, especially for those from excluded caste groups and those who live in geographically isolated locations. This limitation inhibits a nuanced or longitudinal understanding of the impacts of disasters on these groups. Accordingly, investigation of other types of DRM projects in different country contexts is recommended. The World Bank aims to continue creating more-comprehensive knowledge and awareness of how social *exclusion* can not only undermine DRM projects but also, conversely, how social *inclusion* can strengthen resilience impacts in South Asia.

Notes

1 "Climate-related shocks and stresses, already a major obstacle to poverty reduction, will worsen with climate change" (Hallegatte et al. 2016, 2).

2 DRM portfolio data come from the World Bank's Operations Policy and Country Services (OPCS) Vice Presidency.

3 The International Federation of Red Cross and Red Crescent Societies (IFRC) provides a variety of disaster preparedness resources and tools on its website: https://media.ifrc.org/ifrc/what-we-do/disaster-and-crisis-management/disaster-preparedness/.

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Addressing Social Inclusion in Disaster Risk Management Activities

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Methodology: Putting Principles into Practice

The analysis underpinning this report was carried out in three phases. Phase 1 began with an extensive desk review of the World Bank's disaster-related project portfolio over the past decade to determine the most common disaster risk management (DRM) project types in South Asia and the social inclusion activities already being implemented in these projects. The desk review provided a foundational understanding of the World Bank's DRM portfolio in South Asia, which served as the basis for selecting a set of projects, focusing on different stages of the DRM cycle, that would offer widely replicable examples for mainstreaming inclusive resilience. Accordingly, five projects were selected (figure 2.1) across the different stages of the DRM cycle (figure 2.2).

Phase 2, with the project activities of focus selected, investigated the social exclusion issues in each project country. It examined ongoing inclusion efforts in project areas or sites and identified the social inclusion needs of different groups in the project context. Methods included the community-based rapid assessment (CBRA) approach, interviews, community profiling, and focus groups with project beneficiaries and relevant stakeholders.

"The Inclusive Resilience Action Plans provide practical, meaningful recommendations for strengthening social inclusion without significant costs or changes to planned project activities."

Phase 3 developed project-specific Inclusive Resilience Action Plans on the basis of the Phase 2 findings. These plans provide sets of practical and meaningful recommendations for strengthening social inclusion without significant implications for or modifications to the planned project activities.

Each project's Inclusive Resilience Action Plan, detailed in the Chapter 2 case studies, includes a set of DRM-specific entry points for action on social inclusion. As climate-related extreme weather events increase in frequency and intensity in the region, so too will the disproportionate impacts on the socially excluded, keeping the already poor in cycles of poverty and negating development gains toward poverty reduction. The Inclusive Resilience Action Plans comprise recommendations for overcoming the identified social exclusion challenges.

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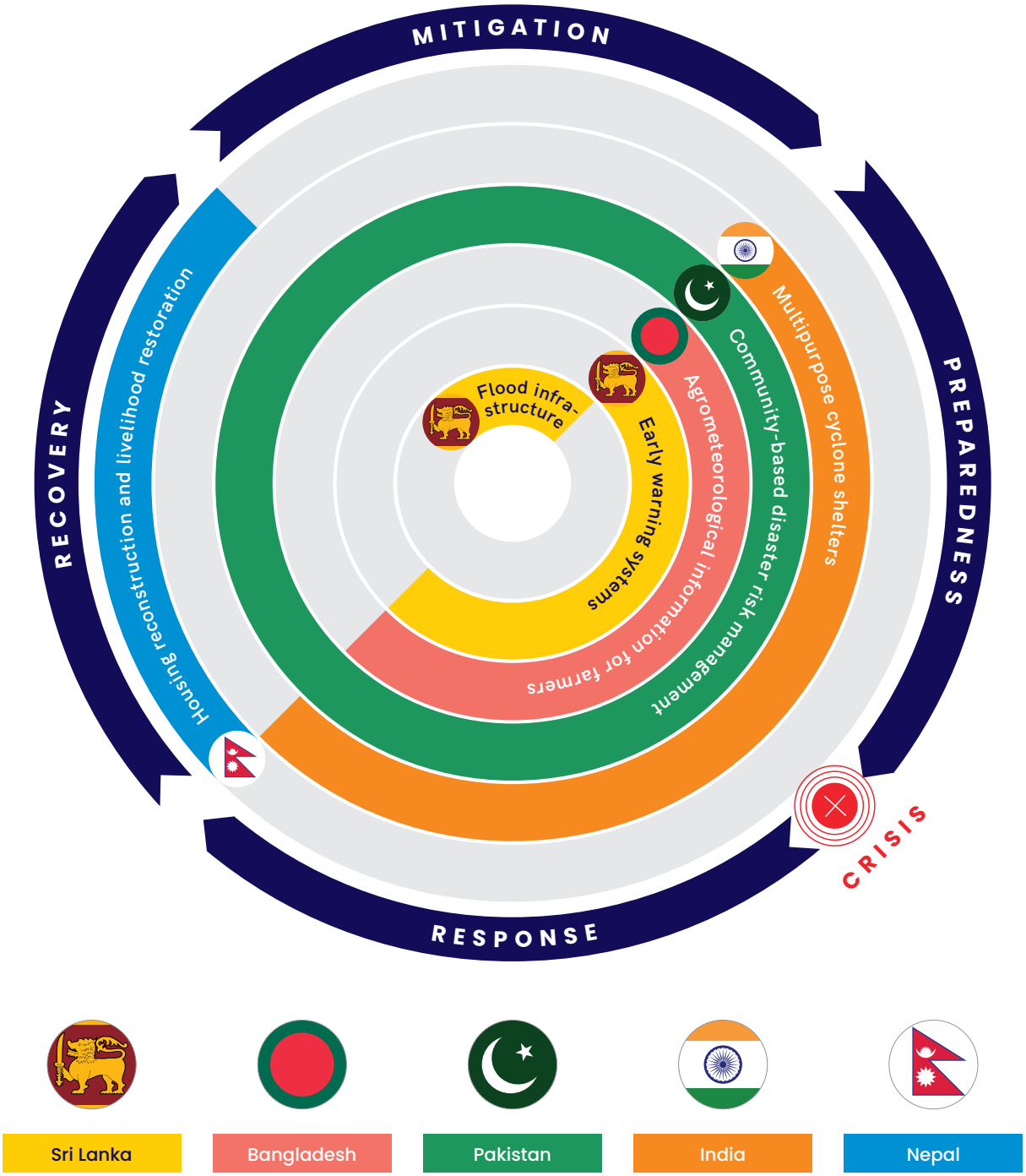
Figure 2.1 Selected Priority Focus Areas for Inclusive Resilience in Five World Bank DRM Projects across the DRM Cycle

Country **Sri Lanka**		Focus areas for Inclusive Resilience Action Plan: **Improvement of early warning systems** **Construction of flood risk mitigation infrastructure**	
DRM Stages Covered: **Mitigation, Preparedness, Response**		Project title and code: **Climate Resilience Multi-Phase Programmatic Approach Program (P160005)**	**Project development objective:** Invest in improving forecasting and early warning services; and flood risk mitigation infrastructure in the Kelani river basin.
Country **Bangladesh**		Focus area for Inclusive Resilience Action Plan: **Strengthening of agrometeorological information systems**	
DRM Stages Covered: **Preparedness, Response**		Project title and code: **Weather and Climate Services Regional Project (P150220)**	**Project development objective:** Strengthen the capacity to deliver reliable weather, water, and climate information services, and improve access to such services.
Country **India**		Focus area for Inclusive Resilience Action Plan: **Construction of multipurpose cyclone shelters**	
DRM Stages Covered: **Preparedness, Response**		Project title and code: **National Cyclone Risk Mitigation Project (P144726)**	**Project development objective:** Reduce vulnerability to cyclones and other hazards of coastal communities, and increase the capacity of state entities to effectively plan for and respond to disasters.
Country **Nepal**		Focus area for Inclusive Resilience Action Plan: **Housing reconstruction and livelihood restoration**	
DRM Stages Covered: **Recovery**		Project title and code: **Earthquake Housing Reconstruction Project (P155969)**	**Project development objective:** Restore earthquake-affected houses with multihazard-resistant core housing units in targeted areas, and enhance the government's ability to improve long-term disaster resilience.
Country **Pakistan**		Focus area for Inclusive Resilience Action Plan: **Community-based DRM**	
DRM Stages Covered: **Mitigation, Preparedness, Response, Recovery**		Project title and code: **Sindh Resilience Project (P155350)**	**Project development objective:** Mitigate flood and drought risks in selected areas, and strengthen Sindh Province's capacity to manage natural disasters.

Figure 2.2 Stages of DRM Cycle and Corresponding Focus Areas of Selected Pilot Projects



Source: ©World Bank. Further permission required for reuse.
Note: DRM = disaster risk management.

The Inclusive Resilience Action Plans are aimed at policy makers and practitioners engaged in the DRM, social development, urban development, climate change, and other such sectors. They help translate social inclusion-related policies into practical actions and support effective implementation of inclusive resilience on the ground. Specifically, the plans serve as a basis for (a) initiating dialogue on how to ensure that planned DRM activities are implemented inclusively, and (b) expanding a practical evidence base on the inclusive design of future DRM activities. They identify proactive, robust approaches that enable DRM agencies to integrate the needs of people with different backgrounds and identities—helping to ensure that DRM interventions achieve resilience for *all*.

The Inclusive Resilience Action Plans were prepared in a consultative and participatory manner. Beneficiaries, project representatives, policy makers, and World Bank staff were consulted to reflect the range of perspectives and voices on the ground, especially of those who are typically excluded. They contribute to expanding the evidence base on *how* to implement inclusive resilience, recognizing that the cost of exclusion is high. The plans are designed to have minimal financial implications and do not require significant operational changes, enabling DRM and social development practitioners to strengthen their resilience interventions practically and relatively easily, making them truly applicable for all. The remaining sections of this chapter present the country-specific and project activity-specific analyses organized around the different DRM stages, highlighting (a) the factors of exclusion facing the implementation of project activities on the ground, and (b) the proposed Inclusive Resilience Action Plans to help overcome these factors.

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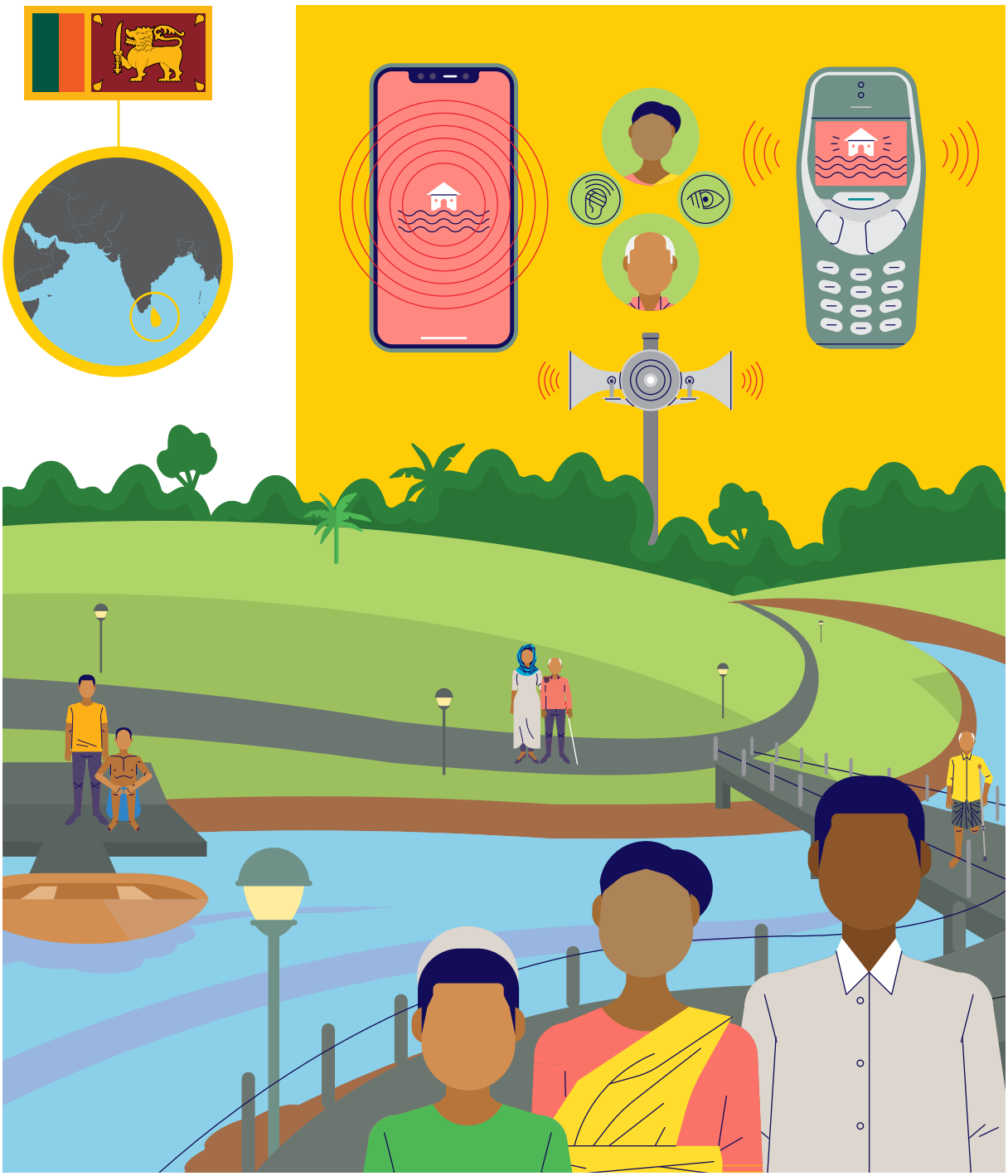
2.2 Mitigation, Preparedness, and Response
The Case of Flood Protection and Early Warning Systems in Sri Lanka



Key Messages

- Effective early warning systems and disaster mitigation investments, such as flood embankments, are critical to adequately prepare and defend communities against extreme hydrometeorological events like cyclones, floods, and resultant landslides.
- Issues of exclusion in early warning systems—in Sri Lanka, concerning gender or ethnic identity as well as physical, aural, and visual disabilities—must be addressed because different groups have different needs for receiving early warning messages to take appropriate action.
- Disaster mitigation infrastructure like flood embankments risk exclusion because the impacts of infrastructure development are not uniform.
- Measures such as enhancing outreach of early warning systems; developing a disaster-responsive social registry; improving disaster literacy; and engaging communities in the design, construction, and maintenance of physical infrastructure are critical to achieving inclusion outcomes.

Introduction: Disaster and Project Context

Disaster Context

The island nation of Sri Lanka has been suffering from many large-scale natural disasters including floods and landslides. For example, the 2004 Indian Ocean earthquake and tsunami killed more than 30,000 Sri Lankans and left more than 20,000 injured.

Project Context

This case summarizes findings from a review of the Climate Resilience Multi-Phase Programmatic Approach Project (CRes MPA) for Sri Lanka, Phase I. The World Bank-approved project aims to enhance the government's capacity to improve (a) weather and climate forecasting and early warning services; and (b) the flood risk mitigation infrastructure in the Kelani River Basin. Guided by desk reviews of the program materials, key informant interviews among project stakeholders and identified DRM experts in the country, and a CBRA, the review illustrates different needs and impacts on vulnerable groups, leading to identification of several entry points for socially inclusive DRM.

Legislative and Policy Efforts to Address Social Inclusion

The 2004 tsunami in particular, and the sheer scale of damage it caused, led to the development of a vibrant policy discourse around DRM in the country. The Road Map to Disaster Risk Management, introduced in 2005, served as a foundation for implementing various policies and plans, including a National Policy on Disaster Management (2013), the Sri Lanka National Disaster Management Plan 2013-2017 (published in 2014), and the Sri Lanka Comprehensive Disaster Management Programme 2014-2018 (published in 2014).

During this process, the government also sought to address the need for inclusion of vulnerable groups, particularly during disasters. For example, the National Disaster Management Plan 2013-2017 paid specific attention to vulnerable groups such as the elderly, children, persons with disabilities (PwD) and women, in the proposed countrywide DRM framework. Disability inclusion was also acknowledged in the Community-Based Disaster Risk Management (CBDRM) component of Sri Lanka's Comprehensive Disaster Risk Management Programme. The "Policy Framework and National Plan of Action to Address Sexual and Gender-Based Violence (SGBV) in

Sri Lanka 2016-2020" has a separate section dedicated to addressing women's needs in disasters (MWCA 2016). Other policies such as the National Involuntary Resettlement Policy—which comes into force during disaster reconstruction—provides, among other things, special attention to vulnerable groups such as female-headed households, the elderly, and those who are differently abled.

"Many policy pronouncements combine vulnerable groups within a single category without detailing group-specific needs."

Most of these policy pronouncements, however, combine vulnerable groups within a single category without detailing group-specific needs, not to mention the needs of those who face the compounded impacts of multiple vulnerabilities and exclusions factors. Further, and despite a *de jure* promise to adhere to a principle of equality and inclusion in these high-level policies, programs, and plans, there is much scope for improvement in the *de facto* actions to ensure that these groups are not left out of disaster risk planning and rehabilitation activities.

Social Exclusion Challenges in Sri Lanka

The CBRA for the CRes MPA Project suggests that, among those directly at risk from floods and therefore targeted by flood risk mitigation activities, different groups have different vulnerabilities and accordingly, different needs. These groups encompass several major factors of social exclusion in Sri Lanka.

"Despite Sri Lanka's high levels of gender parity in health and education, floods are a gendered experience."

Gender. Despite the country's achievement of high levels of gender parity in the health and education sectors, the CBRA showed that floods were a gendered experience in Sri Lanka, as they are elsewhere in the region as well. Floods disrupted perhaps the only spaces to which women had complete access— the private spheres of their homes. As a result, they found it difficult to leave their homes and evacuate, particularly if they were pregnant, had small children, or cared for the elderly and infirm in the family.

Another challenge was a rise in sexual and domestic violence, both in the immediate aftermath of disasters like floods and during the post-disaster reconstruction stages.[1] Evacuation shelters are still not designed to protect female privacies and prevent gender-based violence (GBV), and the lack of segregated sleeping arrangements and bathing facilities creates new risks for women and girls. Likewise, norms regarding property ownership—particularly the concept of the male head of household—result in gender biases against women's access to post-disaster reconstruction activities, as shown in post-tsunami resettlement experiences (Caron 2009; Jayasuriya et al. 2006).

Disability. Sri Lanka has a high disability rate. The *World Report on Disability* identifies a disability prevalence rate of 12.9 percent (WHO and World Bank 2011). Yet, support or assistance to PwD is influenced by the dominant charity- or benevolence-based discourses of helping the "helpless" as a moral obligation, including during disasters.

PwD need more assistance with evacuation, need longer to evacuate, and generally lack appropriate facilities at shelters. Early warning systems such as public service announcements are not geared toward warning people with visual impairments or hearing difficulties. The shortage of sign language interpreters in the country and the absence of legal validity of sign language[2] exacerbate the vulnerability of the PwDs. Despite the recent efforts to incorporate disability-related issues into DRM policies and programs, these initiatives are weakened by negative perceptions of PwD and insufficient alternative communication channels for public service announcements, including for early warning messages.

Age. The elderly constitute another category known to be particularly vulnerable during disasters. They are not only more likely to be killed or harmed by natural disasters like floods but also more likely to undergo severe cognitive psychological stress upon losing their belongings and property (Jia et al. 2010; Kwan and Walsh 2017; Labra, Maltais, and Gingrass-Lacroix 2018; Sanders, Bowie, and Bowie 2004).

Ethnoreligious identity. There is also some evidence of discrimination against ethnoreligious minorities in the disaster context. For example, a study on post-tsunami humanitarian aid and relief disbursement in the Ampara District in Sri Lanka found that a lack of inclusive, participatory approaches has reinforced ethnic divisions and hierarchies and exacerbated vulnerabilities among already marginalized groups (De Silva 2008). However, by and large, examples of caste-based and ethnoreligious discrimination were not apparent in the context of the study site.

Flood-prone populations. Besides these more recognized vectors of exclusion, people who live near rivers face the most immediate risks from floods and their impacts. Although some better-off segments of the population also occupy these riverine or reclaimed wetlands (for businesses, hotels, and the like), most are individuals who have been pushed to these marginal lands because of their inability to afford living in areas that are less flood-prone.

Some of these groups are vulnerable at the onset of disasters because they lack safety nets and support networks to rely on, alternative space to secure their belongings, or access to mechanized transport to move to safety. Floods also affect the livelihoods and daily activities of those who depend on the river for drinking water, washing, and work (for example, in farming and allied activities like fisheries and cattle rearing).

Poverty. Cutting across many of the aforementioned drivers of vulnerability is poverty. Evidence suggests that among the poor, flood losses were 24.5 percent higher for those who worked in the agriculture sector than for those working in other sectors (De Silva and Kawasaki 2018).

Intersectional vulnerabilities. Finally, and as noted earlier, marginalization and exclusion are multiplied where intersectionalities operate. For example, certain groups such as women and children with disabilities, or women who are single or heading

their households, are less educated, have poorer access to social networks, and are particularly vulnerable when disasters strike.

Inclusive Resilience Action Plan for Strengthening Social Inclusion in Early Warning Systems and Flood Risk Mitigation Infrastructure

Given the aforementioned exclusion challenges in flood risk mitigation activities, the Inclusive Resilience Action Plan proposes a few potential entry points to strengthen inclusion in such projects. Because the analysis focused on Sri Lanka's early warning system as well as the flood risk mitigation infrastructure, the entry points are presented in two parts.

Early Warning Systems

ENTRY POINT 1: Design and implement early warning systems to increase outreach to socially excluded groups and individuals

Ensure message delivery to those with different capabilities and needs. Early warning systems (EWS) need to increase their outreach toward socially excluded groups and individuals. This means developing an early warning communication system that can disseminate information based on a person's visual, hearing, or other types of needs.

Broadcast media such as television and social media (for example, Facebook and Twitter) can be useful for ensuring that early warning communications reach *all* people. The media platform allows for messaging to be delivered in sign language or other languages (including Tamil, Sinhala, and English) along with subtitles, or different colored lights or sirens, that can be used to communicate weather-related information.

Alternative platforms for disseminating early warnings include short message service (SMS) text alerts in all languages and help line numbers. New technological solutions that can strengthen outreach include text-to-speech, live transcription, live captions, and other evolving innovations that will help break traditional barriers to information dissemination.

Establish community early warning committees. Such committees, when representative of the diversity of community members, are an important tool for capturing the needs of people, including those with special needs in ongoing DRM planning and programming. They also serve as a mechanism for communities to provide regular feedback. Such a committee can strengthen understanding and coordination between users, local governments, and the local Disaster Management Center to continuously improve the EWS and its procedures.

Strengthen the EWS and protocols. An EWS is only as good as the actions catalyzed by warning messages. Therefore, it is important for the forecasts and warnings to have reliable accuracy, relevance, and geographic specificity. To streamline the early warning information that goes to the end user requires strong coordination among and within departments such as the Departments of Meteorology, Irrigation, and Hydrology. To achieve greater adherence to early warning messages requires clear, simple, and safe evacuation protocols (for example, which mitigation measures to take depending on different warning messages, where to keep important documents, how to evacuate animals, and other community concerns), coupled with safe and accessible evacuation shelters and sites. These systems and protocols are being addressed under the CRes MPA.

ENTRY POINT 2: Build community capacity to better understand and use early warning information

Train community members to understand, interpret, and use early warning messages. To maximize the benefit of early warning messages, users should be equipped to comprehend them, empowered

to make appropriate decisions based on the information, and capable of taking any necessary action to mitigate their risks. Capacity-building programs should be tailored to the varying capabilities and needs of different user groups. In addition, regular trainings, drills, and capacity building for vulnerable groups and the wider community are essential to support a smooth evacuation process when a disaster strikes.

ENTRY POINT 3: Develop a disaster-responsive social registry of vulnerable people

Develop an up-to-date social registry of vulnerable people. A list of vulnerable people (for example, PwD, pregnant women, the elderly, mothers with small children, people requiring medical attention, and so on) that includes their location, contact information, and specific needs can be a powerful tool to prioritize assistance to these groups during a disaster. Such social registry should be shared with local government authorities, community-based organizations, nongovernmental organizations (NGOs), first responders, and others to help ensure smooth evacuation when a disaster strikes.

Enhance communities' capabilities for community-level disaster preparedness and response based on early warnings. The role of communities should not be limited to being passive recipients of information from outside. Instead, community-level training on DRM protocols can enhance community ownership over these processes—for example, by involving individuals from at-risk communities in different early-warning-related activities through a community DRM committee. These committees should seek participation from women, men, senior citizens, PwD, and people of different ethnicities and religions. Providing the committees with basic equipment and training can empower them to read early warnings (for example, of rising water levels). Committee members can become interlocutors with official informants of early warnings and equip vulnerable people with knowledge about what they should do to minimize risks when they receive early warning information. Committee members

can also meet regularly with local government officials to advocate for their community's voice as well as incremental improvements of the early warning system and community DRM activities.

Flood Risk Mitigation Infrastructure

ENTRY POINT 1: Engage communities to be part of the design, construction, and maintenance of flood risk mitigation infrastructure such as embankments

Flood protection works reduce the vulnerability of at-risk populations by reducing frequent flood disruptions, improving socioeconomic well-being, and reducing flood damages and losses. However, the impacts of infrastructure development are not uniform across households and may even exacerbate the vulnerability of the worst off, as a spillover of the physical intervention. Thus, it is important to empower local communities to take an active role in the design, construction, and maintenance of flood protection infrastructure such as embankments.

Establish a citizen monitoring committee as an interface with communities. To enhance local ownership of the whole development process from infrastructure development to maintenance, it is important to give local communities opportunities to remain engaged and communicate the impacts they experience because of the project's activities. One approach is to establish a citizen monitoring committee. This has already been adopted into the project design of the CRes MPA, which involves communities in the design, construction, and maintenance of embankments. This approach helps create sustainable, regular two-way communication between communities and the government, whereby people can express their opinions and concerns and the government can share regular project updates.

Engagement with the communities can be enhanced through other complementary measures. Some other ways to reinforce this two-way communication is by offering a trilingual hotline to help people

get information about the project and report any problems, issues, or concerns. Alternatively, the local government offices and/or on-site project offices can have a public inquiries box or registry. These type of communication mechanisms can empower people and foster ownership over the risk mitigation infrastructure, in this case, the flood embankments. Other opportunities for communities to be involved in long-term risk mitigation activities include appointment of volunteers to help monitor each sluice gate, monitor water levels during heavy upstream rain, and so on. Cultivating a sense of community ownership is especially important during the maintenance period.

Adopt universal design features and ensure that river connectivity would prevent the vulnerable from being further affected by the physical interventions to manage risks. Flood embankments should be designed to be accessible—for example, include railings, ramps, separate communal bathing spots for men and women, and recreational spaces. Embankments should also have safeguard measures such as fences and solar-powered lampposts to ensure the safety of various user groups, including women and children. These inclusive public design features would help create and strengthen the links between people and the river.

ENTRY POINT 2: Adopt an objective resettlement assistance plan to nurture social inclusion throughout the resettlement process

Physical investments to mitigate the impacts of disasters often involve the acquisition of private land, the removal of squatters and encroachers from public lands, the resettlement of households and communities, and losses of income and livelihoods, among other impacts. Vulnerable people tend to reside in marginal lands most susceptible to natural disaster-related risks, which requires interventions—in this case, the construction of embankments for flood protection—to mitigate flood risks. However, these vulnerable groups are likely to constitute a significant proportion of the households that would be adversely affected by development-induced displacement.

World Bank-supported projects provide a comprehensive set of safeguards to mitigate the risks and adverse impacts to project-affected households, including vulnerable groups. These include the required resettlement policy framework or resettlement action plan as well as the World Bank Environmental and Social Management Framework (World Bank 2017).[3] The CRes MPA Project has introduced a unique approach to support joint ownership and livelihood support in areas of relocation, especially in recognition of the challenges women faced in accessing public assistance because of their lack of asset ownership after the 2004 tsunami.

Raise awareness and support behavioral change on property rights for women, including joint ownership of land and assets. It is imperative that programs involving resettlement carry out awareness-raising initiatives to highlight the benefits of women's property rights, including through joint entitlements of land and assets. Conducting a round of consultations with affected households and providing them a platform to ask questions and clarify their issues will be an important component of such an initiative. Both men and women should participate in these discussions, which can help promote the idea of equal ownership in a safe setting while mitigating potential problems, including possible violence against women caused by shifts in distribution of power and resources through female or joint titling of land and assets.

Awareness sessions can also be used to share success stories from different countries or other projects where joint titles have led to better outcomes for women and children. At least one consultation should be conducted with financial sector agencies (state and private banks and other formal lenders) to dispel common myths and concerns about joint ownership of assets by men and women and the ability to use land as collateral for loans.

Provide cash grants, livelihood assistance, and other assistance to vulnerable households. Empirical evidence shows that it is harder for the elderly and PwD to relocate. Therefore, resettlement program

officials should consider additional allowances and in-kind support for households with elderly persons and PwD. Accessible design of houses in the resettlement site, including for example, accessible bathrooms and ramps that can support wheelchair or crutch-based mobility, would facilitate inclusion of these groups. Possibilities may also be explored for creating special resettlement options for the elderly, PwD, and those who require medical attention, including offering sites with greater accessibility, basic medical facilities, places of worship, recreational and communal activities, and so on.

Make counseling services available to those experiencing psychosocial stress from relocation. One of the main reasons why resettlement efforts in many countries do not proceed as planned is that physical structures alone do not address the emotional and psychological needs of individuals affected by the resettlement. Such stresses may be more pronounced for the elderly, the youth, and women. To address this gap, the program may engage a panel of counselors from nearby medical and public health facilities whom the affected parties can contact. Raising awareness about the availability of such counseling services will help those who need it most to access such services. Additionally, motivational programs and life-skills training programs can be built into resettlement programs, especially for the youth and the self-employed. Partnerships may also be explored with private sector stakeholders to employ affected individuals based on their skills and capabilities.

Notes

1 However, as a post-disaster needs assessment (PDNA) conducted after the floods and landslides of 2016 pointed out, the true incidence of violence against women has not been documented as part of Sri Lanka's disaster impact assessments, and the absence of sex- and age-disaggregated data limits the possibility of understanding the effects of gender-based violence (GBV) on women in disaster situations.

2 In Sri Lanka, sign language has been recognized as a "language" at the policy level since 2010, but it is yet to be formally recognized as a matter of law.

3 The World Bank's Involuntary Resettlement Policy (Operational Policy [OP] 4.12) requires preparation of a Resettlement Action Plan to address the risks of impoverishment related to involuntary resettlement and/or the loss of assets or income as a result of the land acquisition occurring under development projects. For more information, see the Bank's Operational Manual: https://policies.worldbank.org/en/policies/operational-manual. The World Bank's newer Environment and Social Framework replaces OP 4.12 with "Environment and Social Standard (ESS) 5: Land Acquisition, Restrictions on Land Use, and Involuntary Resettlement" (World Bank 2018).

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2.3 Preparedness and Response
The Case of Agrometeorological Information for Farmers in Bangladesh

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Key Messages

- Extreme weather events like cyclones, floods, and drought disproportionately affect the poor and vulnerable because of their reliance on agriculture, fisheries, and livestock.
- Agrometeorological (agromet) services can create exclusion on the basis of literacy level, gender, poverty, landownership, age, disability, and ethnic identity.
- Potential entry points for enhancing inclusion include (a) customizing agromet information to the needs of excluded farmer groups using appropriate methodology and timing; (b) enhancing the "disaster literacy" of excluded groups; and (c) establishing regular feedback mechanisms for course correction.

Introduction: Disaster and Project Context

Disaster Context

Located at the delta of three major river basin systems, Bangladesh is extremely vulnerable to climate events such as tropical cyclones associated with storm surges, floods, severe thunderstorms, and drought. These events have significant social and economic impacts. For example, although the estimated economic impact after Cyclone Sidr hit Bangladesh on November 15, 2007, was equivalent to 2.8 percent of the country's gross domestic product (GDP), the storm's effects were highly concentrated in districts with high population density and higher poverty rates than the national average (for example, a poverty headcount ratio exceeding 50 percent in Barisal District versus a national average of 40 percent). Thus, the impact of the cyclone was borne primarily by the poor (Government of Bangladesh 2008). Since 2007, Bangladesh has had several other extreme climate events, each adding economic damage

to the country. Bangladesh's vulnerability to losses is only likely to increase with the rising incidence of extreme weather events.

Project Context

This case summarizes findings from a study of potential entry points for enhancing social inclusion in the World Bank's Bangladesh Weather and Climate Services Regional Project (BWCSRP). Project activities include installing automatic rain gauges and agrometeorological (agromet) display boards at union parishad (union, or rural, council) locations; posting information at kiosks; developing mobile apps; and organizing roving seminars—all the while gathering feedback from farmers on how these advisories can better help them to protect their lives and livelihoods. The study drew upon an extensive desk review of the project materials, an examination of key determinants of exclusion in Bangladesh, and a CBRA in one of the project sites (Sunamganj District).[4]

Before the BWCSRP, there was no nationwide agromet service for farmers. Most farmers obtained general weather information from television, radio, and community sources. One aim of the project is to support awareness building and dissemination of agromet advisories and products to farming communities. A variety of customized agromet products and tools will be developed to help farmers in their planning processes to adapt to the adverse impacts of climate change and disasters.

Recent Efforts to Enhance Inclusion in DRM Planning

Bangladesh has made remarkable strides in identifying groups that are prone to vulnerability and ensuring that their concerns are addressed under the government's DRM programs and strategies. Sustained efforts have been made to prioritize poverty reduction over the years, cutting Bangladesh's poverty headcount rate from 31.5 percent in 2010 to 24.3 percent in 2016 (UNDP 2018). In 2009, the Government of Bangladesh adopted

a National Strategy for Accelerated Poverty Reduction, a core pillar of which is "Ensuring Participation, Social Inclusion and Empowerment" so that marginalized groups such as women and PwDs are considered in the country's development and poverty reduction initiatives (Government of Bangladesh 2009).

The country has also made measurable progress in women's advancement and rights in several areas including education, labor force participation, health and nutrition, and voice and agency. In the DRM field more specifically, the Government of Bangladesh has highlighted gender sensitivity and disability inclusion as important issues in climate change adaptation and DRM. In terms of the project context, the BWCSRP is planning for 25 percent of the members of the lead farmer groups to be women. This represents a significant step in the project's design toward ensuring the inclusion of women in project activities.

The government has also acted to integrate the concerns of ethnic, religious, and cultural minorities into DRM. The National Plan for Disaster Management adopts social inclusion as "an underlying and cross-cutting strategy" (MoDMR 2020, 21) and recommends local-level engagement of different stakeholders (including indigenous communities) in DRM. It also highlights integration of traditional, indigenous, and local knowledge and practices into the plan to complement scientific knowledge in disaster management across the country (MoDMR 2020, 42–43). Finally, Bangladesh has committed to developing practical guidelines to implement and report on the United Nations (UN) Sendai Framework for Disaster Risk Reduction and the UN Sustainable Development Goals (SDGs) on the inclusion of persons with disabilities.[5] Before that, the 2015 Dhaka Declaration on Disability and Disaster Risk Management committed to meaningfully engage PwD and disabled people's organizations (DPOs) within the implementation of the Sendai Framework at the local and national levels.

Social Exclusion Challenges in Bangladesh

Some groups of people in Bangladesh remain excluded from its economic growth and face greater risk of bearing the adverse impacts of climate change. These include, for instance, some of the country's poorest and most vulnerable communities, which continue to rely mainly on agriculture, fisheries, and livestock. They live in diverse agroclimatic zones[6] and therefore face various sources of vulnerability that are only heightened with climate change. Drought, flooding, and cyclones have always been factors around which these communities in Bangladesh have built their livelihoods, and these events have always been sources of covariate shocks and poverty traps.[7] Notwithstanding these risks and impacts, floods can also increase the productivity of agricultural lands (Sultana 2010) and they also play a crucial part in fish breeding by replenishing ponds and connections between waterways (Cannon 2002).

In Bangladesh, exclusion operates along several axes, all of which deepen vulnerabilities, particularly at times of disaster.

"Vulnerable subgroups may not be literate enough to use potentially lifesaving information from the country's current disaster preparedness and recovery materials."

Illiteracy. Lack of education limits access to social services and information, exacerbating poverty during and after natural disasters. Access to timely, accurate, credible, and understandable information during a natural disaster can save lives and property (Yates and Partridge 2014). Findings from the CBRA for Bangladesh indicates that the literacy required by the country's current disaster preparedness and recovery materials, however, may not match the literacy levels of vulnerable subgroups who may not be able to use such potentially lifesaving information.

Gender. Gender-related vulnerabilities exacerbate social exclusion and increase the negative impacts of adverse climate events on women. The interaction between gender and natural disaster risk has been long recognized in Bangladesh (MoEFCC 2018). In general, given the patriarchal context of Bangladeshi society, men are more likely than women to find employment under a government program

or in the formal sector after a disaster. Women's more-limited opportunities center around the household, making them less likely than men to restore their predisaster livelihoods (Kartiki 2011). Washing away of homes during floods not only deprives women of household essentials but also affects their livelihoods, which are generally home-based (Khondker 1996). Further, women's economic assets—particularly land—are treated as subordinate to men's assets; when there is a distress sale, land belonging to women is likely to be sold before land belonging to men (Sultana 2010).

Bangladeshi women in general also tend to have less information and decision-making power regarding risk mitigation. For example, migration to avoid climate disasters generally happens at the household level—a decision primarily made by men (Kartiki 2011). And when families do migrate, women are more likely than men to suffer adverse consequences such as poor or outright lack of sanitation, fear of sexual and physical abuse, and the increased post-disaster burdens of carrying out the functions of daily living for their families (Ayeb-Karlsson 2020; Islam 2012; Sultana 2010).

Poverty. As noted earlier in this report, poverty both drives social exclusion and exacerbates other dimensions of exclusion. Poverty increases exposure to risk as well as the ability to enhance resilience after an extreme climate event. For example, poorer households may have less-durable housing that cannot withstand an earthquake or cyclone. In addition, such a household probably has fewer savings or less access to resources to cope with repairing or rebuilding a house after the cyclone has passed. This may lead to greater loss of life as well as more adverse and longer-lasting economic and social impacts (Sarker and Jie 2017). Global studies have established a strong link between poverty and climate vulnerability, linking the aims of disaster mitigation and poverty reduction (Narloch and Bangalore 2018).

"In Bangladesh, land scarcity and the prevalence of landlessness among farmers is a chronic issue increasing poverty and vulnerability."

In Bangladesh, land scarcity and the prevalence of landlessness among farmers is a chronic issue increasing poverty and vulnerability. Farmers who do not own land in Bangladesh have a

higher poverty rate than landowning farmers. The rate of extreme poverty is nearly 40 percent for landless households and declines progressively, by extent of landownership, to 6 percent for those owning more than 2.5 acres (World Bank 2008). Although poverty among households that own no land has decreased over the years, the unpredictability of the weather and increases in the frequency of natural hazards have increased those households' vulnerability in recent years—more so because their choice of crop and harvest is often dependent on the landowners' decisions.

"Successful provision of agromet services might have only limited impacts on landless farmers because they are not the decision makers for the rented land that they cultivate."

Because of the BWCSRP, however, major differential impacts created by landownership are unlikely to be as significant because the agromet products and services are becoming available to anyone with access to the kiosk or display-board locations. However, the economic impacts on individuals and households will vary based on the amount of land owned (and thus the amount of agricultural output).

Ethnicity. Indigenous communities in Bangladesh are particularly vulnerable to social exclusion, more so in times of disaster. Termed "small ethnic groups," they represent about 1.8 percent of the country's total population (BBS 2011).[8]

The major challenges of the indigenous communities in Bangladesh are poverty, illiteracy, and lack of recognition of customary landownership and its use (DANIDA 2001). These dimensions of exclusion significantly increase their vulnerability to weather-related shocks and trends and decrease their ability to cope with or reduce impacts. A study of Chakma communities, for example, reveals a lack of knowledge about climate adaptation strategies because of limited access to mass media (Huda 2013). Further, given the traditional systems of collective landownership that indigenous people follow, many cannot reclaim land after a disaster because they cannot prove individual/household ownership. With the dispossession of these communities, a lot of traditional knowledge about cultivation and disaster mitigation can be also lost.

BOX 2.1

Traditional Knowledge of Predicting Climate Patterns

Some indigenous communities in Bangladesh—in the Chittagong Hill Tracts, for example—rely on traditional knowledge in predicting climate patterns. They practice the *jhum* method of cultivation, whereby very high production portends severe cold and floods in the following months; birds flying restlessly to and fro signal imminent hazards; and even dogs barking abnormally and ants climbing up houses are taken as possible symbols of upcoming cyclones and hailstorms, respectively.

Source: Irfanullah and Motaleb 2011.

Disability. PwDs are vulnerable in disaster contexts, particularly if neither emergency preparedness nor response planning recognizes and includes their specific needs. In Bangladesh, the net percentage of population suffering from physical disabilities was estimated to be around 9 percent in 2010 (Thompson 2020). Natural disasters disproportionately affect PwD, most notably those living in poor communities. Their ability to access safe living spaces after a natural disaster is limited.

Findings from the first-ever UN global survey of persons living with disabilities show that (a) PwD are generally not consulted about their requirements in potential disasters; (b) most never participate in community DRM processes; (c) most are unaware of a national risk reduction plan in their areas; and (d) even if sufficient lead time is provided, over half find it difficult to evacuate if a sudden natural disaster occurs (UNISDR 2014).

Age. Inclusion of the elderly in DRM programs in Bangladesh is an underresearched topic. No information on the role of the elderly in agromet decision making was forthcoming during

the CBRA. Key informant interviews and focus group discussions indicated that PwD and the elderly do not tend to contribute significantly to agriculture in Sunamganj District. Therefore, given the project's design and planned activities, it is unclear if there will be any differential impacts based on age or disability.

Intersectionality. Finally, intersectionalities with other dimensions of exclusion exacerbate the adverse impacts of natural disasters. For example, landless women are the most vulnerable to be trapped into poverty, indicating that the intersectionality of gender and landlessness significantly enhances the risk of exclusion.

Entry Points for Greater Inclusion in Weather Information Systems

Three priority entry points have been identified in the Inclusive Resilience Action Plan for Bangladesh to address social exclusion issues. They ensure that the agromet information component of the BWCSRP is geared toward providing inclusive and accessible information across different groups of farmers and other excluded populations within the wider community.

ENTRY POINT 1: Deliver customized agromet information and communication systems to socially excluded farmer groups using appropriate methods and timing

Customize information and message content. First, farmers need location-specific information. Most farmers now receive early warning signals from their union parishad offices and television channels. The BWCSRP is making the agromet information area-specific (that is, village- or ward-specific), and the relevant stakeholders, including farmer groups, have confirmed that this is of interest. In addition, if warning systems provided better local information, it would help improve crop management and protection. Some states in India, for example, have used a

block-level, customized SMS service that provides information on block-level weather conditions and their impact on crops and livestock (NIC 2012). The BWCSRP could consider a similar model.

Hazard-specific information could also be expanded. Weather risks such as seasonal rainfall and temperature change, lightning, foggy weather, and cold waves are specific weather-related concerns for women, indigenous groups, and the elderly. These groups have limited avenues for accessing information, and this "non-traditional" weather-risk information is particularly scant. Agromet bulletins that forewarn of all hazardous weather events, including the non-traditional ones, would help mitigate losses arising from such events.

Alternative presentation of information and messages would better address groups' needs. Both the communication channels and the content could be tailored to address the needs of different groups. For illiterate farmers, the use of pictorial or universal symbols can help, along with a list of what these symbols represent, how they are representative of disasters, and what actions are required from individuals. A concept similar to farmer field schools could be used to ensure that farmers take appropriate actions after receiving agromet and EWS information (FAO 2019).

Adopt more-useful message delivery methods and timing. Delivery methods should include voice messages. To receive information, farmers prefer hearing a voice message because this obviates the need for literacy. Hearing a human voice is also perceived to carry more authority than the written word. More-localized voice messages could be sent to people in different localities. Engaging with farmers' associations could help provide context-specific feedback and support a process to review, analyze, and revise communication channels, message content, and the timing of warnings. Some NGOs, civil society organizations (CSOs), and women-led organizations working on similar issues can be partners to fill the information and dissemination gap.

The timing of message delivery is also key. For agromet information to be useful, it must be disseminated within an actionable time window. Regular weekly weather forecasting could help farmers plan actions to mitigate disaster risk. Lead farmer groups could schedule weekly meetings to disseminate forecasted weather patterns, allowing individuals to plan mitigating actions. General training sessions on how to interpret this information and change agricultural decisions on the basis of weather warnings would help farmers better plan their actions. These could be delivered through schools, frontline service workers, or other modes of service delivery used by the government.

Alternative delivery and outreach mechanisms are equally important. To ensure that information reaches all groups—including poor landless farmers, the illiterate, the elderly, women, PwD, and indigenous groups who are also less likely to be literate or own a phone—physical information boards would be a useful way of disseminating information. Even for those who can access information through other channels, if the board is appropriately located (for example, at a central point of the ward, village, or marketplace), this method of providing information could enable people to come together physically and discuss the information displayed. For Bangladeshi women, because they have restricted mobility, information can be delivered at home, either physically or verbally through the radio or SMS text messages (if they have access to these technologies). Local NGOs and organizations that work with women could also be used to reach out to women through community volunteers.

Engage users, including excluded groups, and leverage existing social assets. Diversified community representation in lead farmers groups would improve their reach. It is important to ensure that traditionally excluded groups (such as women, the poor, the elderly, landless, illiterate, PwD, and/or indigenous people) are represented and/or able to participate equally in lead farmers groups and farmers' associations. Ensuring that other identity groups are represented in these lead farmer groups would be

crucial to improve the reach of these groups and to confirm that the project is not perpetuating traditional dimensions of exclusion.

Leveraging social networks will further assist in disseminating information. Union parishad members have an important role in disseminating information on adverse weather events, especially because they enjoy high confidence among community members. Likewise, to reach every home and household, elected members at the ward level can pass the early warning messages to schools (for children and teachers), community-based organizations, village-based clubs, and the like. Engaging with and training these functionaries would help ensure broader reach of the agromet services under the project.

ENTRY POINT 2: Strengthen capacity-building programs to enhance "disaster literacy" among excluded groups

Enhance community capacity. Agromet information and services are new tools for farmers. As also being implemented under BWCSRP, user capacity building is instrumental in maximizing the benefit of agromet information and services for enhancing crop productivities and management. Extensive training of all farmers—whether they are better off, marginalized, poor, illiterate, women, or elderly—is necessary to ensure that the project outcomes benefit everyone, especially those who need it the most.

The information kiosks already developed can strengthen their outreach by ensuring that the interpretation of agromet information is done by someone who is literate and has an advanced understanding of the information and graphs presented. Unless people can access the kiosk and know how to use it, ethnic, illiterate groups in the locality are likely to be less prepared and more vulnerable in coping with hydrometeorological hazards. Likewise, because the project's proposed kiosks and display boards are likely to reach fewer women than men (given social norms that limit women's movement), agromet and other early warning information could be more useful for women if it is received at home. The same can be said for roving seminars and

feedback sessions, which are likely to have a disproportionate number of male participants because of restrictions on women's movement.

Moreover, although the kiosks are planned to be somewhat "literacy agnostic," SMS and mobile app-based alerts may not. This is significant, because women tend to have less access to phones[9] and are also less equipped (by way of literacy) than men to comprehend and act on mobile-based alerts.

Incorporate social inclusion components in training for agromet system designers and service providers. Although user trainings are particularly important, there is also a need to raise awareness about the needs of excluded people among agromet system designers as well as service providers, who are usually central and local government officials. Trainings for government officials can include trainings for the *upazila*-level agriculture officers, agriculture extension officers, and subassistant agriculture officers on the utility of agromet advisories and products. The trainings can go beyond the technical aspects of agromet information and EWS to also include sessions on social inclusion, social analysis (to understand social difference and its relevance to agromet information), and how to ensure that agromet information is accessible and usable by different groups.

ENTRY POINT 3: Establish regular feedback mechanisms for continuously improving dissemination of agromet and early warning information

Establish an inclusive process for gathering feedback. Regular and ongoing gathering of feedback from farmers, as the end users of agromet and early warning information, would make the agromet information and services more sustainable. As with communication materials and approaches, this might mean using both written and nonverbal tools (for example, participatory visual tools) to gather feedback from respondents with limited literacy or ensuring that feedback is collected at convenient locations for different groups of people. In some cases, it might mean actively seeking

respondents (such as women) who might not usually respond, or be allowed to respond, because of social norms and behaviors.

Given these considerations, some academics have endorsed the idea of "disaster literacy" (Brown, Haun, and Peterson 2014). This concept advocates that disaster communication materials be developed keeping in mind the ability of vulnerable groups to access and engage with these materials.

Engage existing groups and platforms. As mentioned above, existing platforms such as farmers' associations, farmer field schools, disabled people's organizations, and women's self-help groups can also be used as platforms to get feedback and make appropriate changes in the agromet services and products.

Notes

4 The Sunamganj region was selected for the CBRA because of its vulnerability in terms of both socioeconomic characteristics and extreme weather events. Sunamganj is the most poverty-stricken district in Bangladesh, has an overall literacy rate that is far below the national average, and is home to a significant proportion of the country's indigenous population. In addition, the region faces annual flash floods, which have a severe impact on food production and livelihoods in the region, reducing the rice yield considerably. The 2015 Integrated Food Security Phase Classification (IPC), identified Sunamganj as chronically food insecure (IPC Level 4). The study identified the contributing factors as low-value livelihood strategies, high dependency on a single livelihood, and low literacy rates—which result in high poverty—as well as poor sanitation and lack of infrastructural facilities such as electricity, roads, and growth centers (IPC 2015).

5 For information about the 2018 "Disability and Disaster Risk Management" conference, see the event website: http://dkconf18.modmr.gov.bd/.

6 An agroclimatic zone is defined as "a land unit in terms of major climates, suitable for a certain range of crops and cultivars" (FAO 1983).

7 Covariate shocks are ones that affect groups of households, communities, or regions—in contrast to idiosyncratic shocks, which affect individuals or households.

8 Indigenous groups in Bangladesh live mainly in the greater Chittagong Hill Tracts and the Sylhet (including Sunamganj), Mymensingh, and Rajshahi Divisions. The major indigenous ethnic groups include Santal (about 30 percent of the total indigenous population), Garo, Hajong, Koch, Manipuri, Khasi, Chakma, Marma, and Tripuri. In Sunamganj, most of the ethnic groups are in the Manipuri, Garo, Hajong, and Khasi communities. (For more details, see AIPP and KF 2014.)

9 Despite an overall national mobile ownership of 68 percent in Bangladesh, Bangladeshi women are 33 percent less likely than men to own a mobile phone (Rowntree 2018).

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2.4 Preparedness and Response
The Case of Multipurpose Cyclone Shelters in India

Key Messages

- Extreme weather events, especially cyclones and floods, often force the poorest and most vulnerable to evacuate to shelters that may not always meet their needs.
- Shelters can at times be exclusionary because of lack of accessible designs, absence of amenities and facilities to attend to the needs of different groups, and discriminatory practices.
- Disaster shelters need to adopt universal design features, provide amenities that accommodate those with different physical abilities, women, children, and the elderly, and have operational procedure to ensure discrimination-free environment for anyone who needs a safe place to evacuate.

Introduction: Disaster and Project Context

Disaster Context

Of India's 7,500-kilometer coastline, almost 5,700 kilometers are highly vulnerable to the impacts of tropical cyclones and related hydrometeorological hazards and consequently to the recurrent loss of life and property. The coastal states of Gujarat and West Bengal, for example, respectively lining India's western and eastern shorelines, have been victims to severe cyclones in the past.

In the past decade or so, however, states in India have increased their preparedness to deal with such extreme weather events. Odisha, for example, showed a high degree of preparedness during Cyclone Fani in 2019 and effectively evacuated nearly 1.2 million people based on early warnings. Similarly, both Cyclone Vayu in Gujarat and Cyclone Fani in West Bengal did not cause as much damage as anticipated. Among the reasons for improved preparedness is the availability of multiple-purpose cyclone shelters (MPCSs) and more-timely warning signals from the state governments.

Project Context

The objective of the second phase of the National Cyclone Risk Mitigation Project Phase II (NCRMP II) is to reduce vulnerability to cyclone and other hydrometeorological hazards of coastal communities in project states and to increase the capacity of the state entities to effectively plan for and respond to disasters. The NCRMP II is contributing to a broader national multi-hazard mitigation effort, following the previous phase focused in Odisha and Andhra Pradesh, where the Government successfully demonstrated the resilience outcomes on the ground (e.g. safety of people through timely evacuation at large scale). While the objective of the project is focused on reducing vulnerability to cyclone and other hydro-meteorological hazards of coastal communities and increasing the capacity of the State entities to effectively plan for and respond to disasters, the focus of the Project on inclusion is strong. The primary beneficiaries of the project are envisaged as the vulnerable coastal population. The Project has also been making efforts to integrate socially marginalized groups like women and girls, persons with disabilities, and the poor through shelter-level community resilience activities. The assessment for this study targeted two components of the project—(a) the construction and operation of the MPCSs, and (b) disaster risk mitigation capacity-building programs —for which the CBRA was carried out in a few districts of two out of six project states: Gujarat and West Bengal. In both states, the CBRA was performed in the blocks where MPCSs had been built under the NCRMP II and where these shelters had been used during the recent cyclones in 2019 (Cyclone Fani in West Bengal and Cyclone Vayu in Gujarat). The objective of the CBRA was to gain insights from both the administration and end users about the use of the shelters and the challenges faced in accessing the shelters during the cyclone.

Recent Efforts to Address Inclusion in DRM

Over the past decade, the overarching DRM strategy of the Government of India (GoI) has shifted from a reactive emergency

response towards a proactive ex-ante risk reduction and preparedness that benefits millions of vulnerable people at the national, state and local levels. Accordingly, GoI has enacted the Disaster Management Act in 2005 which paved the way for the establishment of the National Disaster Management Authority (NDMA) and State Disaster Management Authorities (SDMAs). The NDMA, mandated with framing policies, plans and guidelines for disaster management, has proactively formulated guidelines and procedures for dealing with specific natural disasters and started to invest in risk mitigation measures and preparedness activities. As part of this effort to proactively invest in risk reduction, the NDMA addressed social inclusion in the National Policy on Disaster Management issued in 2009, which clearly guides the integration of economically and socially vulnerable people such as the elderly, women, children (including orphans), and differently-abled persons, into a wide range of disaster mitigation activities. This policy guidance at the national level is overseen by the State level for implementation on the ground. Some States are proactively tackling this issue. For example, the State of Kerala initiated a project to strengthen emergency response capability to better assist differently-abled people and issued the Handbook on Disability and Disaster Risk Reduction (GoK 2016).

Social Inclusion Challenges in India

Various studies have documented the exclusion of vulnerable populations in post-disaster period, particularly during aid distribution and post-disaster reconstruction. In India, these groups include female-headed households, widows, and the socially marginalized including ethnic, religious and caste minorities, the elderly, children and PwD. For example, one qualitative study in the coastal district of Tamil Nadu after the 2004 Indian Ocean Earthquake and Tsunami found evidence of discrimination against women, caste minorities, migrants, and Muslims in accessing aid from NGOs (Aldrich 2011). However, the vast diversity of India in terms of geography as well as socio-economic factors suggests

that the experience of disasters across different groups are not uniform. For example, in West Bengal, participants in the assessment conducted for this study, comprising members from different social groups, reported the absence of any evident discrimination in the government's dissemination of evacuation advisories, with members of all hamlets being made aware of upcoming natural disasters. There was also no reported discrimination by gender, caste, religion, or economic and political status during evacuation. However, the CBRA carried out in the states of Gujarat reaffirms the presence of some of the major factors of exclusion observed in India.

Caste and Religion. In the states of West Bengal and Gujarat, exclusion based on caste and religion were evident in the way the villages were organized, with Muslims and Scheduled Castes (SCs) living in different hamlets from the upper-caste Hindu households. This may have implications for the ways in which assistance is provided both during and after disasters. Other studies documenting the effects of floods and cyclones in states such as Bihar and Odisha have found the SCs and Scheduled Tribes (STs) to be the most adversely affected groups in terms of asset loss and their ability to access rehabilitation aid (Irshad 2014). During the 2019 Cyclone Fani in Odisha, evidence was found of the Dom community (an SC group) being denied entry to cyclone shelters by upper-caste households (Pattnaik 2019). These discriminatory practices influenced by who has decision-making capacity. For instance, the Cyclone Shelter Management and Maintenance Committee (CSMMC), is typically dominated by the district, block, and *panchayat* (village council) officials. It often does not include representation from all sections of society, including SC or ST and religious minority members of the village.

Women and Children. The CBRA carried out for this assessment found that exclusion and marginalization of women manifested in complex ways in disaster management contexts in India. The infrastructure of the shelters was found to be inclusive, with separate toilets for men and women, electricity in all rooms and bathrooms, working ramps, and a separate floor for animals as well. Medical

officers reportedly visited these shelters after the cyclones and carried out checkups, especially for the sick, the elderly, and pregnant women. However, the MPCSs were not designed to have private spaces to serve the needs of women (for example, space to dry cloth sanitary napkins with privacy). Likewise, the CBRA found there was exclusion in terms of access to food for women with children in West Bengal, with families usually asked to bring food from home for their children. In Gujarat, no food was provided, with those staying in the shelters relying on houses closer to the shelter for their food needs. Female participation was also limited in one of the key initiatives to build DRM capacity: the establishment of disaster management teams. The CBRA found that the women who were part of the disaster management teams did not recall having attended capacity-building programs on DRM recently. This is possibly because the programs were usually delivered in one village, with women from other villages finding it difficult to attend given mobility constraints. In addition, the disaster management team meetings were usually organized in the evenings when women were busy with household work, making it difficult for them to attend.

Elderly and People with Disabilities. In disaster situations, the absence of readily available list, location and contact details, and lack of provision for special assistance to vulnerable groups like the elderly, pregnant and PwDs makes it difficult to support their timely evacuation. A study of the post-tsunami period in India reported that, during rehabilitation, no support was provided to PwD whose caregivers had died or were missing during the disaster (Priestley and Hemingway 2006). The difficulties also come in when accessing the multi-purpose cyclone shelters and the facilities provided therein. Some of the participants in the CBRA reported that there was no guidance (e.g. signboards) or transportation provided to reach the shelters safely. This meant that some families had to resort to measures like placing the elderly on their shoulders to reach the shelters or using their neighbors' motorbikes or their own to relocate. In another case, even when they were aware of the presence of such shelters, many poor people were not clear about their rights to use them.

Occupation. Geographical location and occupational segregation also influence vulnerability to disasters. Many fishing households, for example, by the nature of their occupation lived closer to the coast and therefore were more vulnerable to hazards such as cyclones. Since the livelihoods of these communities are intractably tied to their location, there are also additional challenges during disasters—the fishing community in West Bengal are generally reluctant to leave their houses when hit by cyclones.

"Some of those who tried to access the shelters reported incidents of discrimination in gaining entry to them based on their economic status and political allegiance."

Poverty and Economic Status. Incidents of discrimination in gaining access and entry to shelters were reported based on economic status and political allegiance. In West Bengal for instance, families from poorer backgrounds, who lived in *kuccha* (non-concrete) houses and were closer to the sea, reportedly could enter the MPCSs only after their affluent counterparts (who were economically or politically better off) had settled in the buildings. Here, there was an underlying narrative of why the affluent felt that they had more of a right to the shelters: in both states, the MPCSs were mostly constructed in relatively affluent localities, not in poor hamlets where land was scarce for such construction. In fact, some affluent families in Gujarat reportedly did not even access the shelters because they lived in concrete houses that could withstand the cyclone. In West Bengal, again, clashes were also reported between the supporters of the two leading political parties about who would move into the shelters first and take their preferred rooms.

Entry Points to Improve Inclusiveness of Multipurpose Cyclone Shelters

This section presents five practical entry points, as identified in the Inclusive Resilience Action Plan for India, for supporting and enhancing inclusion in NCRMP II.

ENTRY POINT 1: Improve inclusiveness of the MPCSs by making their design and locations accessible

Build cyclone shelters in safe, accessible locations. The site selection criteria for MPCSs should ensure accessibility by people with varying needs. The selection of land to build new MPCSs should be risk-informed, based on a multihazard risk assessment with consideration for the needs of different groups to access the shelters. Strategically placing MPCSs in areas where vulnerable groups are known to reside, is ideal. Connecting the MPCSs with all-weather access roads to enhance the mobility of the target population to access shelters during disasters is another important consideration to weigh.

Implement equitable and universal design standards for MPCSs. Ensure, from the design stage, that vulnerable populations (such as the elderly, the disabled, pregnant women, and others) have designated areas in the MPCSs, including consideration for people's needs for proximity to washroom and ramps. For example, rooms closest to ramps or other accesses can be designated for the disabled, elderly and sick, and pregnant women, with dedicated toilet and shower spaces designed according to their needs. MPCSs should also plan to address the needs of future inhabitants, including the menstrual hygiene needs of women (for example, separate dustbins in the washrooms, private places to dry cloth sanitary napkins, and feminine hygiene care units).

Establish a sustainable and ongoing consultation mechanism with vulnerable people. An ongoing consultation platform can be established to continuously capture design improvements for other vulnerable or socially excluded groups

and to develop a model design for future MPCSs as well as guidelines for how existing MPCSs can be retrofitted.

ENTRY POINT 2: Foster community ownership of and engagement in the MPCSs to ensure effective shelter management during disasters and to enhance community resilience

Encourage community use of MPCSs during nondisaster times. As is being done under the NCRMP II, during nondisaster times, the shelters can be used for economic or social purposes to promote community engagement. This will help communities familiarize themselves with MPCSs and to work as a community to manage them. It will also help raise communities' awareness of MPCSs' locations, purpose, and management protocols.

Foster a culture of social inclusion in the use of MPCSs. During nondisaster times, the shelter buildings can be used, for example, for educational purposes (such as coaching centers, skill development centers, computer centers, and so on), specifically targeting vulnerable and marginalized members of the local community. The shelter buildings can also be used on an ad-hoc, temporary, or regular basis as Anganwadi centers (integrated child development centers), primary schools, and health camps that target women, children, and vulnerable groups, especially in the areas deprived of such facilities.

Use shelters for economic and social inclusion activities. The shelters could be also considered for potential economic activities by hosting regular farmers' markets or by renting event space for private use (such as weddings, exercise classes, and so on) to generate revenue that can support the sustainability of MPCSs, as has been discussed in NCRMP II.

ENTRY POINT 3: Improve information to help prioritize evacuation of the most vulnerable

Develop a geo-referenced social registry of the most vulnerable people as well as the support capacity of local governments

and communities. The study findings suggest that having a readily available list of the most vulnerable in the community (such as disabled people, the elderly, and pregnant women) can help target information dissemination and support prior to the onset of a disaster.

As a first step, the government officials and local community representatives (like the disaster management team and panchayat members) need to be trained to prepare for disasters, including preparing the list of vulnerable populations. Such a list can be prepared in consultation with the key stakeholders in the village (like the head of the panchayat, heads of self-help groups, accredited social health activist [ASHA] community health workers, Anganwadi workers, teachers, and so on).

In practice, two types of lists can be prepared: (a) a matrix that provides higher officials with an estimated numbers of vulnerable people in their catchment areas; and (b) a detailed list to track each vulnerable person's address or location and the household head responsible for them, so that the evacuation of these vulnerable people can prioritized and coordinated with the family members. The list/registry can also help in higher-level decisions, such as where to hold awareness meetings, and for quick identification of vulnerable populations and prioritization of their evacuation during disasters. Both these lists can be distributed among block officials, disaster management team (DMT) members, and CSMMC members as well as pasted on the walls of the MPCS. The same or lists of similar nature can also be made available to the local NGOs, which often play a crucial part in disaster management.

Provide assistance to the most vulnerable for priority evacuation, rescue, and post-disaster recovery. One of the most practical uses for the social registry of vulnerable people is to prioritize support for their evacuation. During a disaster, those individuals included on the list of vulnerable people can be shifted to the cyclone shelter with support from the DMT members on a priority basis. For example, for a single-member household, the CSMMC can assign a community

member or a volunteer to support the evacuation. Signs and billboards, both in local languages and with pictorial boards, within the MPCS catchment area can help direct people to the cyclone shelters.

Train community members. As part of regular disaster drills, people can receive tutorials on how to evacuate. As part of the exercise, community members can be trained to help the vulnerable during disasters. Evacuation announcements can stress the importance of including and prioritizing vulnerable people and assisting them. Ideally, the announcements should be understandable for people with different abilities (people with hearing and visual impairments). Alternatively, DMT members can prioritize personal visits to the families of people with such disabilities. If any social protection (SP) mechanism is in place, this registry of disaster-vulnerable people can transform regular SP to adaptive SP that enables a regular cash-transfer mechanism to address shocks due to natural disasters as well as long-term climate change impacts.

Use local and traditional knowledge to enhance community resilience. Local and traditional knowledge can be accumulated to help manage disaster risks. This knowledge can be used in the design and delivery of community capacity-building activities at the MPCS. It would also likely support the process of ensuring that DRM plans and activities are appropriate to the needs of vulnerable people. A capacity assessment matrix can be a useful tool to identify pre-existing local capacity (for example, the fishing community's traditional knowledge of being safe during cyclone) that can be used or strengthened during disasters. Individuals with such skills and knowledge can also be used as resource persons, within trainings, to impart their knowledge to others.

ENTRY POINT 4: Increase the inclusiveness of the DMTs and community shelter management committees

Diversify representation on DMTs and CSMMCs. The CBRA suggests that the DMTs have limited representation of women and other

excluded groups. To ensure that the DMT reaches out effectively to all such groups, it can seek equal representation from both genders as well as the age, social, religious, and occupational groups (for example, SCs, STs, Hindus, Muslims, people living in different hamlets, the fishing community, and so on).

The training of DMT members can include a specific focus on how to identify and prioritize support for the most vulnerable in the location during different stages of DRM. These training programs can be conducted within the village itself (for example, in the MPCS building) to allow women, the elderly, and others who are less likely to travel, to participate. The timing of the trainings and meetings ideally would enable convenient participation for all and should be decided after consulting the relevant village stakeholders to ensure maximum reach. Alternatively, multiple trainings and meetings can be organized at different times (like one in the morning, one in the evening) to have maximum attendance from all segments of the target population.

Train DMT and CSMMC members. DMT and CSMMC members, in turn, can be engaged as trainers for capacity-building programs at schools and at the community level. Raising awareness through schoolchildren can be an important source to reach the community. To retain this pool of DMT and CSMMC members, it is recommended to provide them with some incentives (such as in-kind payments, basic salary, honorarium, etc). Once the committees are set up to manage the MPCS and the building starts generating revenue (when it is not used for cyclones or other disasters), the DMT and CSMMC members can be paid from that revenue.

Additionally, DMT members can be recruited as caretakers for the MPCS buildings. As individuals trained in disaster management, they can play pivotal roles in managing and preparing the shelter quickly in case of a disaster. For example, if the shelter is used for some other purpose, they can provide guidance in setting up the infrastructure so that it is ready for the emergency and can be vacated as quickly as possible.

Similarly, improving the representation of vulnerable groups in CSMMCs can strengthen their cooperation and likely improve the committees' impact. It is therefore recommended that the CSMMCs consist of, in addition to the members proposed by panchayat and block-level government officials, female self-help group (SHG) members, ASHA health workers, and *Anganwadi* health center representatives, to name a few. SHG members in villages play a crucial role in women's empowerment, and ASHA and *Anganwadi* workers are pivotal for accessing quick information about the vulnerable in the community and reaching out to the sick and vulnerable people (primarily children, pregnant women, the elderly, and PwDs) in the village.

Establish standard operating procedures to manage shelters for different user groups. Operating procedures for block and CSMMC members, separately during disasters and normal times, can be clearly written outlining their responsibilities. For example, during normal times, the opening and closing of the MPCS can be the responsibility of the CSMMC, but during a disaster, it can be a joint responsibility of both block and CSMMC members.

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2.5 Recovery
The Case of Housing Reconstruction in Nepal

Key Messages

- Extreme weather events such as earthquakes require people to navigate post-disaster assistance processes to rebuild.
- The socially excluded face disproportionate challenges in seeking and receiving post-disaster assistance and support because of low literacy rates, asset ownership issues, limited voice and agency, among others.
- Broadening the eligibility for post-disaster assistance and proactively supporting vulnerable groups in navigating post-disaster assistance processes can help maximize inclusive reconstruction outcomes.

Introduction: Disaster and Project Context

This case study presents findings regarding social inclusion issues in Nepal's Earthquake Housing Reconstruction Project (EHRP). The case study is based on a desk review of the literature; key informant interviews with project stakeholders and identified area experts; and a CBRA including community profiling and group and individual interviews in communities that received the housing reconstruction grant. The specific aim was to identify practical entry points for more robust social inclusion practices in housing reconstruction as implemented under the EHRP.

Disaster Context

On April 25, 2015, a 7.8 magnitude earthquake struck Nepal. Following a second strong earthquake on May 12 (7.3 magnitude), and a sequence of aftershocks, the government of Nepal reported a death toll of 8,790, while those injured reached 22,300. A June 2015 post-disaster needs assessment (PDNA) found that total damages and losses amounted to about US$7 billion, with reconstruction

needs of about US$6.7 billion. The sequence of earthquakes destroyed 490,000 houses, mostly those owned by the rural poor and built using traditional materials (stone, mud, mortar, or brick masonry), and rendered another 265,000 houses at least temporarily uninhabitable. The largest single need identified in the PDNA therefore was housing reconstruction, accounting for US$3.27 billion or almost half of the total reconstruction requirements.

Project Context

In light of these needs, the World Bank funded the Earthquake Housing Reconstruction Project (EHRP) to restore houses in the most-affected districts of the country.[10] Implemented through Nepal's National Reconstruction Authority (NRA), the project followed an owner-driven approach: owners of affected houses received cash grants in three installments (adding up to NPR 300,000, or US$3,000) as a conditional cash transfer that requires owner to comply with predetermined technical standards, verified by designated engineers at various stages of reconstruction. Moreover, an additional top-up grant of NPR 50,000 (approximately US$500) was provided to families that met the government's "vulnerability" criteria.[11]

The program's objectives were to improve the resilience of communities and build a culture of safer, more sustainable housing and settlements. To those ends, the project established a program of social, environmental, and technical support mechanisms for beneficiary households; trained owners in the use of earthquake-safe building techniques and materials; instituted a system for supervision and certification of compliance with multihazard-resistant standards; established a grievance redress mechanism; and implemented an extensive communications and outreach program.

Recent Legislative and Policy Efforts to Address Social Inclusion

On December 20, 2015, Nepal enacted a law that created the NRA and mandated that it undertake the reconstruction of structures affected by the earthquake. Both the creation of the NRA and later the formulation of the Reconstruction and Rehabilitation (R&R) Policy (approved in February 2016) recognized the importance of addressing the concerns of marginalized groups.[12]

Accordingly, a Post-Disaster Recovery Framework (PDRF) thereafter recognized women, Dalits, *Janajatis*, elderly, PwDs, children, and female-headed households, as being among the most vulnerable of those affected by the earthquake. Several other acts and policies developed after the earthquake also highlighted social inclusion as an important element: the Disaster Risk Reduction Management (DRRM) Act, 2017; the Local Governance Operation Act, 2017; and the National Building Code (revision on NBC 105, which provides technical guidance for seismic design of buildings).[13] For example, the DRRM Act, 2017, provided for special plans and programs for women, children, elderly people, and Dalits as well as other marginalized groups and communities such as PwD who are vulnerable to disaster risk.[14]

Factors of Social Exclusion in Nepal

"Natural disasters are indiscriminate. But their impacts and the humanitarian response in their aftermath can discriminate against those people who need help the most."

Natural disasters are indiscriminate. Earthquakes have no regard for social hierarchy, gender, age, disability, religion, ethnicity, or caste. But the impacts of such disasters and the humanitarian response in their aftermath can discriminate against those people who need help the most. When a disaster hits, vulnerable or marginalized groups tend to be disproportionately affected because they often have fewer and more fragile livelihood options, less access to social and economic resources, less ability to influence the relief and recovery efforts, and more barriers in accessing assistance—often without the voice that would enable them to advocate for those barriers to be addressed. This

is particularly so given that development outcomes across all sectors show that gender, caste, ethnicity, geographical location, regional identity, and economic status are some of the strong determinants of access to services, resources, and political representation (ADB 2017). The major factors of social exclusion in Nepal are described below.

Gender. Women were among the groups most adversely affected by the 2015 earthquake. More women and girls died than men and boys, partly because of gendered roles that disproportionately assign indoor chores to women, thus increasing their casualty and injury rates when the houses collapsed. In the aftermath of the earthquake, more women became economically inactive (21.8 percent) than men (8.3 percent) and were required to spend more time on unpaid work such as taking care of children and adults (UNOCHA and UN Women 2016). The CBRA confirmed additional hardships faced by women during the recovery phase. For instance, due to their low levels of literacy and lack of prior experience, many affected women are unable to independently fill in the paperwork and/or interact with government authorities thus requiring them to rely on the goodwill of neighbors, shopkeepers, engineers, and others to build their homes.

Internal migrants. The lack of documentation also disempowers internal migrants or people who move from one part of Nepal to another. Approximately 24 percent of the population affected by the earthquake did not possess a migration certificate or what is called a *"basai-sarai darta praman patra"* (UNOCHA and UN Women 2016). This presents a barrier in obtaining government relief services and benefits after the earthquake because the migration certificate is one of the primary documents required to sign the partnership agreement (PA) and get the housing grant. Although the authority to recommend such a certificate rests with the wards (local government authorities), interviews in the field revealed a mixed scenario: some ward officials were happy to make recommendations, but others were reluctant to do so.

Ethnicity and caste. Livelihoods for many marginalized caste (Dalit) and minority ethnic groups (indigenous people known as the *Janajatis*) were severely affected because most of them were already living on the margins before the earthquake. For example, owing to the existing social hierarchies, the Dalits, who are usually engaged in low-paying occupations (as cobblers or ironsmiths) and are landless, were the worst affected. Many faced food shortages after the earthquake and had to rely on money lenders (who charged high interest rates) and on the benevolence of friends and relatives to get by.

Remote communities. Geography and location also serve as an axis of exclusion. Most damages to homes and human settlement from the earthquake were in the rural areas and in the hills/mountains, including many remote and inaccessible mountain communities. The earthquake also damaged the roads to these areas, thus inhibiting communication, which in turn also limited the government's ability to assess the damages in these communities and send relief materials and supplies.

Disability. The NRA recognizes disability among its vulnerability criteria, and those with red (profound disability) and blue (severe disability) cards received additional top-up housing grants. Many others in the earthquake-affected districts have other kinds of disabilities but are not considered eligible for the top-up grant.[15] There is also a lack of representation of PwDs in post-earthquake local governance and decision-making bodies. The National Federation for the Disabled has 100 district-level focal points across 17 districts, but findings from the CBRA indicate that their expertise and knowledge was not fully mobilized for better targeting and support to the disabled population.

Child-headed households. Another group that was particularly vulnerable in the post-earthquake reconstruction phase comprised households headed by children. The NRA identified 91 child-headed households, and most of these children had lost their parents in the earthquake. In official records, these children were listed as beneficiaries, but they had to be living alone without guardians to be able to meet the vulnerability criteria for accessing the top-up grant.

Yet, because they are aged 16 years or less, they do not have citizenship certificates which make them dependent on extended family members to access the reconstruction assistance in general.

Homeownership issues. Intrahousehold inequities played out in ways that exacerbated exclusion and limited access to benefits. Cash support for reconstruction is payable only to the registered owner of the damaged house. This excludes a significant number of other household members such as the elderly persons who live with their children but could not make decisions on where or how the house would be reconstructed. In addition, there are several cases of multiple families or even of generations living under the same roof because of poverty and local custom; but only the owner of the house would be eligible for assistance, with no guarantee that the support provided would benefit all equally.

"Because the EHRP works on an owner-driven housing concept, the main challenge in reconstruction derives from the capacity of the owner. . . . The owners often lack the requisite skills, financial stability, and networks to manage rebuilding."

Moreover, because the EHRP works on an owner-driven housing concept—with eligibility determined by an assessment of recovery needs and the willingness to participate and adhere to project guidelines for resilient construction, quality standards, and timelines—the main challenge in reconstruction derives from the capacity of the owner. Beneficiaries who are vulnerable have pressing priorities such as food, medicines, and paying off loans. Further, reconstruction is an activity that requires constant supervision by qualified individuals to ensure that quality standards are maintained and regulations followed. The owners often lack the requisite skills, financial stability, and networks to manage rebuilding. For example, the most vulnerable households, such as those headed by women or from marginalized Dalit and *Janajati* communities, are less able to access formal finance than other groups. This compels them to take more expensive loans from moneylenders to complete their houses. Although the government banks and financial institutions offer loans at concessional rates by keeping land or the house under construction as collateral, many beneficiaries are either unaware of this information or do not meet the minimum criteria to borrow money.

Entry Points for Improving Inclusivity in Housing Reconstruction

In short, the challenges related to social inclusion in the earthquake recovery have not stemmed from a lack of laws, policies, or commitments at the national level. Rather, the challenge for the government and development partners has been in (a) translating these national policies and commitments into meaningful participation of vulnerable and marginalized groups in decision-making bodies and processes at both national and subnational levels; and (b) ensuring that targeted efforts are made at the ground level to address their particular vulnerabilities and needs.

ENTRY POINT 1: Improve the vulnerability criteria for better targeting, coordination, and delivery of assistance

Broaden the eligibility criteria for deploying special assistance packages. Although the government of Nepal has been supporting vulnerable households (including PwD, single women older than 65 years, men older than 70 years of age living alone, and orphans under the age of 16), the NRA may consider adopting broader socioeconomic criteria (such as poverty level) for targeting vulnerable groups. This will help maximize the focus of program benefits for the most vulnerable in existing and future reconstruction programs.

This requires (a) engaging with local governments, community groups, and CSOs for better targeting, coordination, and delivery of assistance; (b) supporting government officials in appropriately applying socioeconomic criteria for vulnerability (such as landlessness, disability, economic hardship, food insufficiency, and so on); and (c) designing and implementing assistance packages to cater to the various needs of the vulnerable during reconstruction (such as top-up grants; livelihood assistance; and in-kind support such as construction materials, technical assistance, and the like).

ENTRY POINT 2: Provide reconstruction support to vulnerable groups

Support vulnerable groups throughout the reconstruction process. Those deemed eligible for the "vulnerable" list also require hand-holding during and after construction of their homes. For example, it is a challenge for the elderly, disabled, and women to purchase construction materials because they tend to have no prior experience, generally have limited literacy, and can be easily deceived. The EHRP has provisions to help vulnerable groups complete housing reconstruction. This is particularly helpful because some vulnerable groups require extra support—whether owing to illiteracy or to limited familiarity with reconstruction processes—to liaise with masons, engineers, and other reconstruction service providers for the timely completion of construction.

Information flows to the vulnerable groups are also less effective given their low education levels, more so if such groups live in remote areas. According to some key informants who were interviewed for the CBRA, most women find it difficult to understand the grant filing processes and require support to fill out the forms.

Various radio programs conducted by both the government and development partners broadcast information related to reconstruction, but the CBRA suggested that this was not a good source of information, at least for the vulnerable, because few of them possess radios.

Providing focused assistance to the vulnerable will help incomplete homes to receive special attention and address construction bottlenecks, thereby ensuring a swifter reconstruction. Such assistance could include helping the beneficiaries to liaise with the various entities needed for reconstruction—including masons, businesses selling reconstruction products, and/or engineers and overseers to expedite construction.

Improve access to institutional finance. Construction milestones often are not met because vulnerable households lack access to easily accessible and affordable sources of finance. Although the NRA has arranged with banks and financial institutions to provide loans at concessionary rates for housing reconstruction, awareness is low about the availability of such loans to housing grant beneficiaries. The vulnerable therefore end up borrowing from moneylenders at usurious rates and use the housing grant to repay their own loans. To resolve this, the NRA could consider linking beneficiaries of the housing grant to alternative sources of finance such as revolving funds managed by various users groups (for example, community forestry users groups) or collective guarantee loans where local governments can act as guarantors for vulnerable people who cannot provide collateral.

Raise awareness of the reconstruction process and available support. The CBRA made clear that many vulnerable people are not aware of simple procedural issues, including when to access reconstruction grants, how to file grievances, how to hire masons, or how to buy construction materials. To address these knowledge gaps requires the systematic dissemination of information at different levels of government—from the NRA to local governments, to social mobilizers, and all the way to vulnerable people who lack the means to access relevant information.

Establishing communications channels to effectively disseminate information about the reconstruction program and its benefits, will help increase responsiveness to the reconstruction process. Developing clear mechanisms for regularly collecting feedback from beneficiaries on how policies and processes can be improved will be an important element to ensuring that communications channels and the information they disseminate are continually improved. Ward offices have an important oversight role to play in actively reaching out to vulnerable groups, monitoring the reconstruction process, and ensuring the local population is aware of their rights and the assistance available to them.

ENTRY POINT 3: Augment the capacity of government officials to effectively serve socially excluded groups

Build the capacity of ward officials to support the most vulnerable. The vulnerable, in addition to their own limited capacity, are affected by supply-side factors including local government capacity and services. For example, the ward offices are responsible for recommending beneficiaries who fall under the NRA's definition of "vulnerable" so those individuals can get extra support from a top-up grant. But the wards struggle to fulfill this role for a variety of reasons, ranging from their own limited capacity to manage reconstruction processes alongside their other responsibilities (for example, annual planning) to confusion over NRA directives on the decisions that wards have authority over.

Similarly, though the government has made provisions for overseers and engineers to inspect houses in each ward, this does not happen everywhere, especially in remote areas. This slows the pace of reconstruction because such overseers are required to sign forms for beneficiaries to be eligible for the next installment of the cash grant. In the absence of authorized personnel to oversee and sign off on the various phases of housing for grant release, the vulnerable are the ones who tend to suffer the most.

Because local wards are the most important units of government for reconstruction, the capacity of ward officials to implement reconstruction rules and regulations is especially important. Their capacities can be strengthened by increasing their awareness of the needs of vulnerable groups and their ability to efficiently deliver services to them. Training ward officials to develop local DRM plans in a participatory and consultative manner and providing them with the appropriate technology to monitor grant systems and grievance redress mechanisms will increase their effectiveness.

Raise awareness of the reconstruction process and available support, including how to address grievances. The grievance

redress mechanism is another area for potential improvement. The CBRA revealed that women, the disabled, and the elderly suffer from various problems like unavailability of construction materials, scarcity of masons, limited information, lower wages for women, to name a few. However, given the time and resource constraints, these groups find it difficult to register their complaints and follow up.

Engage social mobilizers to bolster government capacity to support vulnerable groups. Social mobilizers are generally local people who have an excellent understanding of the physical, economic, political, and social aspects of their communities. Their perspective of on-the-ground realities is an added advantage for local government offices, such as ward offices, that lack the technical and financial resources to reach every part of the community.

To augment outreach to vulnerable groups, there is a need to identify, train, and build the capacity of social mobilizers so they can help connect vulnerable households to relevant government departments and services, work with eligible vulnerable people to support their housing grant applications, link them to skills training programs, and ensure they understand how to submit grievances through the appropriate channels.

ENTRY POINT 4: Provide livelihood support to strengthen economic recovery of vulnerable groups alongside housing reconstruction

Pair housing reconstruction with economic recovery. The training provided for housing reconstruction (for example, in masonry) can help households expand their livelihood opportunities and increase their resilience. Supporting small and medium enterprises as hubs for locally available construction materials and local expertise can provide momentum to economic recovery through housing reconstruction. Initiatives have already been developed to "train the trainers" to promote entrepreneurship among vulnerable groups, including PwDs and women, and more of such interventions are needed.

Design livelihood support programs based on varying capabilities and needs. The CBRA clearly indicates that customized livelihood assistance, especially for vulnerable individuals and communities, is as important as housing assistance for enhancing their resilience. Economic recovery has been a challenge for these groups because of a lack of information, limited access to finance, inadequate business skills, to name a few. Designing skills programs to train individuals on how to run a small enterprise (including how to register their businesses, access bank loans, and secure permits) can be especially helpful.

Aligning the NRA's economic recovery initiatives with existing government livelihood programs—such as the Micro-Enterprise Development Program (MEDPA), which promotes small and medium enterprises and entrepreneurs in several districts of Nepal—can help galvanize the entire local economy, with these enterprises serving as incubators for employing the poor and vulnerable people. For existing livelihoods such as masonry, the program could consider training local people in more-advanced skills (for example, advanced construction techniques). Likewise, there is also a need to promote rules such as equal wages for men and women, so that women also benefit economically from the reconstruction. This tactic helps empower women during reconstruction and will have lasting impacts in the new post-disaster normal.

Notes

10 The EHRP comprises four components: Component 1: Housing Reconstruction; Component 2: Disaster Risk Management Systems; Component 3: Project Implementation Support; and Component 4: Contingency Emergency Response.

11 The NRA identified 18,505 people as "vulnerable" and hence needing more attention than the rest of the earthquake-affected households. Those on the vulnerability list received a top-up grant of NPR 50,000 (US$500) in addition to the housing grant. The vulnerable groups, based on the government's criteria, include PwD with red and blue cards, single women more than 65 years old, men more than 70 years old who live alone, and orphans under the age of 16 years.

12 The NRA, for example, identified several vulnerability criteria including female headship, households headed by the elderly or by orphan children, and PwD for offering additional support.

13 In addition, the Constitution of Nepal 2015 clearly envisions Nepal as an inclusive state and guarantees the right to equality for all its citizens. Nepal is signatory to 23 human rights treaties and instruments, with the legal framework of the country largely supporting gender equality and social inclusion. Furthermore, the government of Nepal has established institutional mechanisms such as the Ministry of Women, Children and Senior Citizens; the National Women's Commission; and similar commissions for Dalits, Madhesis, and Muslims; as well as gender equality and social inclusion (GESI) focal points in all ministries and departments and a Gender Responsive Budget Committee under the Ministry of Finance, among others.

14 The Act was amended and bylaws formulated in 2019.

15 For example, the yellow card is issued to those whose body parts below the knee cannot function because of polio; who experience intellectual or learning disability; who are able to hear with a hearing aid, see with a lens or magnifier, and so on.

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2.6 Mitigation, Preparedness, Response, and Recovery
The Case of Community-Based Disaster Risk Management in Pakistan

Key Messages

- Social exclusion issues need to be addressed throughout the DRM planning cycle.
- The pre-existing factors of social exclusion in a community can manifest as inadequate community-level DRM planning.
- Proactive inclusion of traditionally excluded groups, by seeking diverse representation in planning process, is critical to address exclusion and the vulnerabilities it can engender.

Introduction: Disaster and Project Context

Disaster Context

Pakistan's Sindh Province has been prone to riverine floods that affect both villages and urban areas. Although the 2010 "super floods" in Pakistan affected the entire country, Sindh was the worst-affected province. Approximately 44 percent of all economic damages were in Sindh, with almost 880,000 housing units completely or partially damaged and agriculture losses estimated at 90–100 percent (ADB 2010).

Every year since 2010, rivers have risen above danger levels in Sindh during the monsoons, causing extensive damage. At particular risk are riverine communities in the vast *Katcho* (fragile) riverbeds of the Indus but also, to a lesser extent, the population living in embankment-protected, canal-irrigated *Pucco* (protected) areas.

Project Context

To mitigate the risks faced by these communities, in 2016, the World Bank approved the Sindh Resilience Project with the main objective of mitigating flood and drought risks in selected areas of the province and to strengthen Sindh's capacity to manage natural disasters. The project comprised three main components: (a) strengthening disaster and climate risk management, (b) improving infrastructure and systems of resilience, and (c) providing contingency emergency response. To implement the first component in particular, the project was designed to strengthen the capacity of Sindh's Provincial Disaster Risk Management Authority (PDMA) to implement what is called a community-based disaster risk management (CBDRM) approach, among other interventions.

"Community-based disaster risk management calls for actively engaging at-risk communities in the identification, analysis, treatment, monitoring, and evaluation of disaster risks to reduce their vulnerabilities and enhance their capacities."

Broadly, the CBDRM approach calls for actively engaging at-risk communities in the identification, analysis, monitoring, and evaluation of disaster risks to reduce their vulnerabilities and enhance their capacities. The involvement of socially vulnerable groups is critically important for the successful implementation of disaster risk management (Kafle and Murshed 2006).

Recent Policy Efforts to Enhance Community-Based Disaster Risk Management

In Pakistan, the National Disaster Management Authority (NDMA) endorses in principle the CBDRM approach, which is specifically articulated in the country's National Disaster Management Plan of 2012. Further, the subsequent National Disaster Risk Management Policy (2013) notes that all DRM initiatives should consider the nature and degree of vulnerability in each community where DRM work is carried out in order to identify the vulnerable groups. The policy requires that disaster risk reduction and management focus specifically on vulnerable groups such as women, PwD, the elderly, and those who are otherwise marginalized. To implement this "inclusive" CBDRM approach, the NDMA calls for some core

guiding principles such as all-of-society engagement and partnership, an empowering and inclusive approach, and nondiscriminatory participation by paying special attention to the people disproportionately affected by disasters, especially the poorest.[16]

Despite this clear articulation—as well as the National Disaster Management Plan's own emphasis on CBDRM elements about engaging with communities—there is relatively less attention to incorporating the experiences, knowledge, and priorities of people vulnerable to disasters. This calls for engaging local people; reflecting the voices of the most vulnerable in DRM planning; and changing the understanding of CBDRM from being an approach wherein communities engage with a government's disaster risk mitigation program to one where they *own* and *participate in* the entire range of DRM actions. This is particularly relevant for a context like rural Sindh, where there are landownership inequalities, on the one hand, and a patriarchal kinship-group-based solidarity on the other. The social structures that make up a "community," therefore, have various exclusionary factors. It thus becomes even more critical to engage with the voices of those who are the most vulnerable to disasters and exclusion.

This case summarizes findings from a CBRA conducted in two sites of the Sindh Resilience Project: the Belo Union Council (UC) and the Thatta and Sujawal Districts. Both areas host communities that have been affected by riverine floods in the past and that have also received CBDRM and NGO interventions. The main objective of the rapid assessment was to obtain insights from a cross-section of the targeted communities, representing various dimensions of social exclusion and various types of experiences with disasters and DRM projects. The case, in sum, advocates the need to apply such a lens; provides insights about the processes that lead to exclusion in the area; and offers recommendations from an inclusion perspective that are both project-specific and more broadly applicable to Pakistan's DRM policy.

Social Exclusion Challenges in Sindh and the Project Area

Social structures in rural Sindh Province are broadly similar to other parts of Pakistan but with their own specificities and hierarchies that lead to particular configurations of social exclusion. Not only do the various dimensions of exclusion interact with each other but external shocks like floods also exacerbate the situation of those who are most vulnerable. This section discusses each of these dimensions and their interaction with disasters.

Hazard-prone geography. One of the more important vectors along which exclusion plays out in rural Sindh is geographic. The *Kaachho* and the *Thar*,[17] arid and semiarid zones, are among the poorest and most food-insecure regions of Pakistan and highly vulnerable to floods and drought (MWCA 2016).

The unprotected riverine *Katcho* part of the floodplains faces floods frequently when river flows increase in the monsoon season. For many communities that live in these parts, their housing situation is always precarious. They also have to wait longer to move back after floods, until their settlements become dry and habitable again. In the nonflood season, contrarily, these communities tend to face extreme water shortages and cannot practice other sources of livelihood like fishing or fulfill daily necessities such as accessing drinking water because of seawater intrusion. Such hazards thus are the source of seasonal and periodic migration of the populations living in these areas.

The embankment-protected, canal-irrigated *Pucco* areas, on the other hand, account for much of the population and economic development (because of the availability of irrigated fertile land). They are also affected, though exceptionally, when embankments are breached accidentally or during extremely high river floods. Even within *Pucco* areas, historically marginalized communities such as non-Muslim Bheels may face insecure housing rights and may therefore be more vulnerable when disasters strike.

Landownership. Another important dimension of exclusion in rural Sindh concerns the gap in landownership. Only around a third of all rural households own any agricultural land compared with the national average of 38 percent (Sindh BOS and UNICEF 2015), while the top 0.4 percent of the households account for nearly one quarter of the total owned area (Government of Pakistan 2010). For the latter group, large land holdings also imply political power. Approximately 52 percent of the rural landless work in agriculture as tenant farmers, laborers, and/or with livestock (PBS 2015).[18]

In disasters, the impact is more significant for landless populations or those with insecure rights to landholdings for two reasons: First, because access to political power is a function of landownership, those who own land can access public services (including DRM services of evacuation, relief, and recovery) more easily than others (Hasnain 2008). Second, those lacking secure tenure and ownership of land find it difficult to return to their original land after floods because their return depends on the whims of their landlords (Naqvi and Gazdar 2011).

Kinship group. Hierarchies between economic classes, religions, and ethnic or racial groups play out in terms of power relations between patrilineal kinship groups based on tribal affinity. Within a village (known as a *para*) or cluster of villages (known as a *goth*), landownership is often concentrated within a kinship group while their tenant farmers and laborers are often from other, land-poor kinship groups residing in neighboring *paras* or *goths*.

These kinship groups are not only markers of identity but in contexts where relations with local governments (for example, *tapedars* [local revenue officials], union council officials, and so on) are weak, they are also instruments through which leadership, economic power, and patronage are exercised (Gazdar 2007; Latif 2017). As a result, the structure of villages—with their emphasis on protecting the patrilineal kinship groups—consolidates its own powers while restricting the autonomous decisions that

excluded groups like women can have, including in matters relating to DRM design and participation in CBDRM activities.

Gender. Patriarchy and gender cut across nearly all dimensions of inequality in Sindh, as they do in the rest of Pakistan. Male-female disparities are seen across almost all dimensions of well-being and empowerment including education, nutrition, health, employment, and political participation. Further, with social norms that endorse active enforcement of spatial segregation, the practice of *purdah* (or female seclusion), limited mobility, and inequalities and social exclusion of women, are more pronounced in rural Sindh, especially among women from large landowning families (Callum, Sathar, and ul Haque 2012; Cheema et al. 2019; Gazdar 2003; Jacoby and Mansuri 2011; UN Women 2018).

Vulnerability due to gender becomes more severe in disasters for several reasons:

- Women can rely only on their male household members for information regarding disasters.
- The decisions and responses at the onset of disasters, such as whether to evacuate, are made mostly by the men for the family. Although women may want to evacuate earlier to protect lives and save their assets, men feel bound to stay behind because of masculine norms relating to bravery and protecting community honor.
- When a disaster like a flood strikes, among the most important concerns for women are "no space or privacy" and the lack of segregated toilets. The shame of living in a public tent violates the principles of *purdah*.
- The migration of males in search of alternative sources of income after a disaster increases the already heavy workload of women. Women are also more likely to face violence during these periods and undertake significant care work because of an increase in illnesses.

DRM processes, however, are not able to adequately address these sensitivities. For example, in an observation of the DRM processes after the 2010 floods in Sindh, Shah (2012) found that the staff working as part of recovery and rehabilitation teams largely comprised men; women were restricted to providing health and hygiene trainings rather than working on gender-related issues during DRM planning. The opportunities for women to articulate their independent concerns, interests, and voices regarding DRM planning are also restricted by the gendered structure of settlements, with most women not being allowed to access public spaces.

Disability. It is well acknowledged that PwDs disproportionately face disaster risk and vulnerabilities (Twigg, Kett, and Lovell 2018). However, the literature that documents the exclusion faced by PwDs in general, as well as during disasters, is thin in Sindh (and in Pakistan) (Singal, Bhatti, and Malik 2009). The available sources have only documented that it is mostly the households and communities that ensure that PwD are evacuated first in times of disaster.

"In general, the needs of people with various impairments are ignored in the design of disaster-related interventions and in the planning for other DRM policies and programs."

In 2018, Sindh was one of the first provinces in Pakistan to pass an Empowerment of Persons with Disabilities Act, but disability remains a significant factor of exclusion. In general, the needs of people with various impairments are ignored in the design of disaster-related interventions (Shah 2012) and in the planning for other DRM policies and programs (Singal, Bhatti, and Malik 2009).

Official identification. Exclusion is also perpetuated by whether individuals have access to identity cards. To illustrate, the Government of Pakistan issues computerized national identity cards (CNICs), which are seen as authentic proof of identity and citizenship. Although the CNIC is a statutory requirement for all citizens aged 18 and above, its coverage remains far from universal. The implications in a disaster setting are predictable: many households that lack CNICs are reportedly turned away from relief camps and relief providers.

Intersectionalities. Finally, the intersection of different dimensions of exclusion exacerbates vulnerabilities for specific groups of people. For example, among those living in the arid and semiarid regions of the Thar zone, the most vulnerable are the religious minorities and the historically marginalized ethnicities. Similarly, income as a marker of exclusion is prominent especially in post-disaster situations, with the wealthier (also the more landed and more politically connected households) having better access to relief from the government as well as their better-placed social networks.

Entry Points to Strengthen Community-Based Disaster Risk Management

Given all of the aforementioned exclusion challenges, this section proposes a few entry points to strengthen CBDRM as a means to enhance inclusive disaster management and resilience.

ENTRY POINT 1: Adopt a more holistic approach to CBDRM, and use it as an opportunity for long-term integration of the community along the DRM cycle

CBDRM is an opportunity for long-term integration of the community along the DRM cycle. In principle, CBDRM is not a stand alone activity focused on training community members. For CBDRM to be truly representative, the entire DRM chain must be regularly assessed, particularly the engagement of different groups in CBDRM activities as well as the district level's responsiveness to the diverse needs of individuals and groups who face exclusion during disasters.

Engage communities to understand own risks It is effective to conduct localized vulnerability and hazard assessments in partnership with local communities to identify risks. This will help develop community disaster management plans that are aligned with the local hazards and vulnerabilities of the target community while also raising community awareness of risks.

The current institutions in Pakistan's local DRM system—namely the local community disaster management groups (which exist in communities) and the Union Council Disaster Management Committees (which exist at the union council level)—can undertake field analyses of prevailing dimensions of social exclusion. They can use this information to proactively reach out and incorporate the concerns of such groups and recommend changes to DRM systems, such as changes in staffing and training modules to sensitize government officials on how to deal with vulnerable groups before, during, and after disasters. This analysis can also inform the development of registries of vulnerable individuals and settlement maps that support the prioritization and targeting of evacuation and rescue assistance as well as the timely provision of emergency relief to those who are most in need.

Map social vulnerability and enhance social protection system. Identifying and mapping social vulnerability can contribute to targeting responsive social protection and services protocols to the most vulnerable during a disaster. The CBRA found that vulnerable and excluded groups in Sindh face challenges to accessing early warning, relief, and recovery measures. Their inability to access these critical disaster services cannot merely be explained by their lack of awareness or ignorance. Rather, their social exclusion poses structural barriers, rooted in the entrenched social hierarchy, that prevent them from accessing such measures. CBDRM components therefore must go beyond their usual drills and trainings to address the underlying causes of vulnerability by proactively connecting the socially excluded with government services, including social protection.

Assess CBDRM activities in partnership with communities. To ensure responsiveness to the diverse needs of different individuals and groups, it is useful to assess CBDRM activities by proactively consulting with vulnerable groups, to ensure their needs are addressed in community-level DRM plans, and by making recommendations to address gaps in current CBDRM activities.

ENTRY POINT 2: Strengthen and enhance inclusive outreach to and within communities

Enhance community outreach through non-traditional channels. In a context where social hierarchies are strongly embedded, the best way to access local communities is typically through local leaders and decision makers in a community such as union council officials, *tapedars*, and *chango murs* (community leaders), who tend to be men. For the purposes of carrying out CBDRM, outreach through these channels will be limited and may unintentionally exclude vulnerable voices in the design and delivery of DRM activities. Similarly, evidence suggests that CBDRM efforts tend to be concentrated in communities that have some pre-existing physical and social infrastructure (Park 2015), which means that in rural Sindh, where a large proportion of the population resides in physically and socially marginalized settlements, errors of exclusion can be severe.

The inclusive outreach to and within communities thus needs to be explicitly addressed in the design of CBDRM initiatives. This may involve holding regular consultations with district officials, NGO representatives, and local officials such as *tapedars* to ensure that the voices of the most vulnerable communities are represented in CBDRM programs.

Hold DRM trainings in accessible locations that allow vulnerable groups to participate. To reach various vulnerable groups, trainings should be held in different places to widen opportunities for participation. To ensure the inclusiveness of trainings, extra support may be needed to get participation from women, PwD, the elderly, or those speaking minority languages. However, securing their participation is essential to reduce reliance on local officials, like the *tapedars* or the informal community leaders, who spread information by word of mouth to their networks, which in turn strengthens existing systems of patronage. Adding trainings to existing social events is a good way to secure participation from community members and has the additional benefit of fostering community ownership.

ENTRY POINT 3: Improve CBDRM training content and delivery methods by engaging communities

Design inclusive CBDRM trainings that reflect the identified needs of excluded groups. Community-level trainings have been conventionally seen as the main CBDRM activity. These trainings mostly focus on building the capacity of local populations with useful survival skills as well as some practices around behavioral change. Because trainings are such an important aspect of CBDRM, for them to be truly inclusive, they need to be based on a prior assessment of the needs of different segments of the community. To achieve this, community engagement to develop effective training materials, is essential.

The training process should be a two-way communication between community members and local government officials. CBDRM trainings will provide instruction to the community, yet they should place equal emphasis on listening to and learning from the community to be most effective. For example, it is important to acknowledge the traditional practices community members may have regarding disasters—practices that may inadvertently put them at risk. These practices should be addressed in training manuals. Additionally, the concerns of PwD are often approached with a sense of charity rather than as an issue of rights and empowerment. CBDRM trainings and their materials have a role to play in empowering PwD and should be carried out in a manner that is accessible to them.

Strengthen the capacity of communities to better access public assistance. Besides enhancing capacity for self-help and survival, CBDRM trainings also need to build the capacity of people to access public goods and services in the disaster context. For example, women and socially marginalized groups often face obstacles in obtaining identity documents that are necessary for accessing many public services. CBDRM trainings could therefore be adapted to facilitate the provision of CNICs to vulnerable groups or helping them overcome obstacles in accessing CNICs. Such a program could also identify on-the-ground first responders who can proactively help people with

specific needs (for example, PwD, the elderly, those needing medical care, pregnant women, and others) to access public assistance.

Leverage community platforms to engage excluded people. CBDRM trainings have historically had relatively lower participation from women. To address this, trainings for women could be delivered at health centers because women are more likely to visit them to access maternal and child health services. Likewise, women's self-help groups could be leveraged for consulting with women and other excluded groups to disseminate information throughout the community.

Enhance the capacity of local governments to better serve the excluded. There is a need to enhance the capacity of local governments (for example, *tapedars*, union council officials, and so on) and partners through sensitization, regular trainings, and disaster drills on how to reach out to and sensitively interact with PwD, women, and other vulnerable groups. Such officials should also be well informed about available public services and eligibility requirements so that they are equipped to support vulnerable groups with accurate information in the disaster context.

Notes

16 Further, Volume III of the National Disaster Management Plan—"Instructors' Guidelines on Community Based Disaster Risk Management"—includes detailed steps from community selection to rapport building, participatory assessments and trainings, organization building, community-managed implementation, and participatory monitoring and evaluation (Government of Pakistan 2013).

17 Thar is a large arid region of Pakistan, spreading over Punjab and Sindh Provinces and starting from Tharparkar District in the east.

18 Detailed statistical tables can be retrieved from the Pakistan Bureau of Statistics website: http://www.pbs.gov.pk/content/labour-force-survey-2014-15-annual-report

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3.

Recommendations and the Way Forward

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3.1

What Can Be Done? Advancing the Inclusive Resilience Agenda in South Asia

Global research finds that helping vulnerable groups like women, the elderly, PwDs, or indigenous and caste groups to increase their knowledge of climate-related risks can be an effective approach to building community resilience. The Inclusive Community Resilience program of the Global Facility for Disaster Reduction and Recovery (GFDRR) highlights cases where grassroots women[1] have led disaster response and recovery efforts that strengthened community resilience, such as the following (GFDRR 2015):

- *In India,* rural women are becoming change makers through participation in risk mapping and risk communication to improve their communities' resilience (Gopalan 2016).
- *In Guatemala,* community hazard mapping is empowering indigenous groups of women who are trained to use Global Positioning System (GPS) and other relevant technologies and are now working in partnerships with their local and national governments to map and monitor risk (Fundación Guatemala 2016).
- *In Chile,* after the 2010 earthquake, women took more public and prominent roles in their communities to support recovery and reconstruction, leading to their longer-term empowerment (Moreno and Shaw 2018).

Likewise, many initiatives are also encouraging communities to recognize elders' experience and knowledge of disaster risk management (DRM) (American Red Cross 2009). The Sendai Framework for Disaster Risk Reduction 2015–2030 states, "Older persons have years of knowledge, skills and wisdom, which are invaluable assets to reduce disaster risk, and they should be included in the design of policies, plans and mechanisms, including for early warning."[2] The Ibasho Café in Ofunato, Iwate Prefecture, Japan (box 3.1) exemplifies a concept that strengthens community resilience by empowering elders to become active participants in the recovery process while also challenging negative perceptions of aging (Kiyota et al. 2015). Ibasho—a nongovernmental organization (NGO) whose name means "a place where you can feel like yourself" in Japanese—has scaled up this approach in Nepal and the Philippines.

Engaging socially excluded people in decision making throughout the DRM cycle is critical to ensuring inclusive resilience. When decision-making bodies do not hear the voices and understand the needs of all groups, they will lack the awareness needed for fully effective DRM policies, planning, and investment activities. Some high-income countries have implemented inclusive outreach and engagement. For instance, California's emergency alerts were developed based on wide consultations with different user groups, particularly persons with disabilities (PwD).[3] This process included consultations to address varying capabilities, by disability type, to receive early warning messages in the most effective way (Cal OES 2016). California identified advanced technological alternatives to deliver early warning messages to those with different capabilities, and today's rapid technological advancements will likely make such solutions more affordable and adaptable in different country contexts over the coming years.

To drive the inclusive resilience agenda forward, this analytical work proposes practical entry points for inclusive resilience across two dimensions. First, project-specific Inclusive Resilience Action Plans are presented in the case studies in Chapter 2 and the corresponding table in the appendix. Second, this chapter elaborates high-level inclusive resilience recommendations across the four stages of the DRM cycle. Because DRM interventions often cut across multiple DRM stages, addressing social exclusion through both dimensions—at the DRM project activity level and by high-level DRM stage—provides a robust approach toward addressing exclusion issues at multiple DRM stages: mitigation, preparedness, response, and recovery.

BOX 3.1

The Ibasho Café: Elders Strengthening Social Capital and Resilience in Disaster and Pandemic Recovery

Ibasho, a nonprofit organization, offers low-cost, self-sustaining solutions that empower elders to create more inclusive and resilient communities while infusing their own lives with more meaning and purpose. The Ibasho model was pioneered in Japan after the Great East Japan Earthquake of 2011. The Ibasho House in Japan was cocreated and is managed and staffed by elders. In its first six years of operation, it served more than 40,000 people and hosted over 2,250 events in which elders shared their knowledge with younger people by cooking traditional foods, organizing traditional festivals, teaching young people how to use old equipment that works without electricity, and more.

When the COVID-19 pandemic led to social-distancing orders in their community, elders at the Ibasho House in Japan came up with creative solutions to keep their doors open and helped socially isolated elders and other community members. They set up tables and chairs outside to allow visitors to safely socialize with others; started a carryout bento lunch box service to serve healthy meals; and built an unmanned farm stand allowing people to purchase the organic vegetables the elders grow without having direct interactions with others, picking up bagged vegetables prepared by the elders and leaving payment in a box. Ibasho House is able to serve its community in this time of need because of the ties it has established over time, as the elders who manage the operation find new ways to serve their community and strengthen its resilience.

Source: Contributed by Emi Kiyota, founder of Ibasho.

Key Principles for Inclusive Resilience

To further advance inclusive resilience in South Asia, the following overarching recommendations emerged from the project-specific action plans and can aid in the design of DRM projects with enhanced social inclusion:

- ***Acknowledge and discuss social exclusion in the context of DRM.*** Because social exclusion is deeply rooted in many aspects of life in South Asia, it often goes unnoticed. However, disasters exacerbate these vectors of exclusion, diminishing the desired outcomes of DRM interventions. To address this, it is imperative to acknowledge and discuss the factors of social exclusion and how to address them in the DRM context. This will require DRM and social development practitioners to collectively identify and initiate effective interventions to address exclusionary factors in specific DRM projects, drawing on each other's area of expertise.

- ***Understand the differential needs and experiences of excluded groups.*** Appropriate and effective interventions can only be built on a solid understanding of the challenges faced by excluded and marginalized groups. This will require consulting with these groups and deepen the understanding of their needs and capabilities in the disaster context. The dimensions of social exclusion and how it unfolds are unique to each country, locale, and project context. It is important to carefully analyze the who, how, and why of exclusion in these different contexts and accordingly identify appropriate entry points to enhance inclusion in DRM project activities.

- ***Mainstream the social inclusion concept into the DRM legal and policy frameworks,*** and translate the inclusive resilience concepts into DRM policies and plans into actions. This effort requires all relevant stakeholders to recognize and understand social exclusion issues and to enhance the capacity of various social actors to act on such issues collectively in the area of DRM.

- ***Develop the knowledge and evidence base required for effective policy and programming.*** The concept of inclusion or inclusiveness is increasingly gaining wider currency in policies and programs. However, the evidence base required for ensuring truly inclusive outcomes, including in DRM, remains weak. Additional analysis, assessment, and measurements for monitoring progress toward inclusion, are thus required. A nuanced analysis—backed by disaggregated data—of the needs and capabilities of all people, especially the marginalized, would enable practitioners to take up these issues in a more structured way and better inform their engagement with different groups. Only then can they truly address the inclusion gaps in different DRM focus areas and at different stages of the DRM cycle.

- ***Strengthen the capacity of relevant authorities responsible for implementing and maintaining DRM frameworks.*** This includes capacity-building activities for DRM agencies and line agencies at the national and local levels that are involved in the legal and policy framework as well as in planning and implementation, on resilience and social inclusion. This will foster better understanding of social exclusion factors and effective inclusion actions, leading countries to create an enabling environment for inclusive resilience.

- ***Engage communities at every stage and make decision-making processes inclusive.*** Reflecting the voices of excluded groups is an effective way to ensure inclusive decision making. Leveraging existing social forums and programs (such as organizations representing disabled people, women's self-help groups, farmers' associations, and the like) is an effective way to capture their collective voices. This will require two-way communication platforms between governments and communities. In many countries, there are active groups advocating for social inclusion on the basis of specific exclusionary factors such as disabilities, gender, age, race, ethnicity, and religion. These groups can serve as platforms to gather the voices of excluded groups and reflect their needs in decision making. This will create an open,

transparent, inclusive, and sustainable mechanism to incrementally improve any DRM outcomes by collecting community feedback. Proactively engaging excluded groups in decision-making processes will help ensure that project design and management effectively contribute to building the resilience that is truly for *all*.

- ***Leverage emerging technologies that can help close gaps in risk communications*** to reach people with different needs and capabilities. Accessibility technologies are advancing by the day,[4] and they can be integrated into early warning systems or any other kind of risk communication platform to ensure inclusive risk communication.

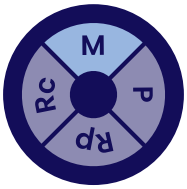
- ***Join the cause to raise awareness of inclusive resilience.*** An expanding wealth of resources now discuss DRM and its impacts on groups excluded by factors such as gender (including gender identity), age, disability status, and sexual orientation. It is important to keep advocating for this agenda among DRM, social development, and other practitioners. As this report has noted, however, although social inclusion is often discussed with a focus on a particular exclusion factor, those at the intersection of multiple excluded identities are even more vulnerable because of the compounding impacts of these factors. This report is one effort to raise awareness among DRM practitioners about all of these challenges and to serve as a platform to address them. The World Bank South Asia Inclusive Resilience animation video highlighted in figure 3.1 aims to raise awareness through another digital medium.

Figure 3.1 **Images from Awareness-Raising Video, "South Asia Inclusive Resilience"**

Source: World Bank 2020. ©World Bank. Further permission required for reuse.
Note: The video, "South Asia Inclusive Resilience," is available at https://youtu.be/jV-65YKp0BI. DRM = disaster risk management.

3.2

Entry Points for Inclusive Resilience

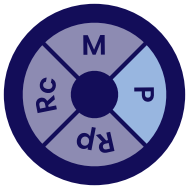


Entry Points for Mitigation

Disaster mitigation measures often include structural or physical interventions coupled with effective community engagement. The following entry points leverage the needs and capabilities of socially excluded groups in this process to yield inclusive disaster risk mitigation outcomes for wider society:

- ***Engage communities across the planning, design, construction, and maintenance of disaster mitigation infrastructure and buildings.*** Fostering community ownership of such assets will underpin the long-term sustainability of mitigation investments while also attending to the communities' needs and capabilities.
- ***Leverage resettlement opportunities associated with infrastructure projects to enhance the safety and resilience of the affected and at-risk communities.*** The resettlement process, which is often necessary when constructing new disaster mitigation infrastructure, can create positive social and physical benefits if

it responds to the needs of affected households—for example, by offering joint titling of land and assets and tailoring livelihood programs based on people's preferences and skill sets as well as on market needs.



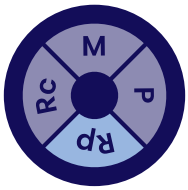
Entry Points for Preparedness

Disaster preparedness involves a wide range of interventions, many of which are associated with response activities and systems that must be established in advance to adequately help people and government better prepare for, and cope with, emergencies. These entry points would help to accomplish the goal of ensuring that preparatory activities are carried out and yield inclusive outcomes:

- ***Design inclusive preparedness actions to make the response activities inclusive.*** This effort would entail a wide range of preparedness actions, including but not limited to policy development, improvement of institutional arrangements and service delivery mechanisms, and capacity building of relevant actors involved in a variety of preparedness actions.
- ***Improve the inclusiveness and diversity of the local disaster management authorities, groups, and teams to better assist local communities based on varying needs.*** To the extent possible, local authorities responsible for disaster management should be representative of the social diversity within the community, especially inclusion of marginalized groups. To advance disaster preparedness at the community level, it is also important to mobilize community members of various backgrounds so that local community disaster management plans reflect the voices of different groups with different needs and capabilities.
- ***Design and implement early warning systems to enhance their outreach as well as accessibility and usability.*** Early warning systems will only be effective to the extent they prompt actions to mitigate and respond to the risks. This will require designing

and delivering messages for people with different capabilities (such as literacy levels, disabilities, access to information devices, and so on) as well as customizing message content, delivery methods, and timing based on individual needs. Additionally, inclusive early systems can be enhanced by creating a disaster-responsive social registry and empowering communities to prepare for and respond to disasters based on early warnings.

- ***Develop a georeferenced social registry that lists the community's most vulnerable people to facilitate effective, timely evacuation assistance and rescue services as well as post-disaster assistance.*** This will help equip local disaster management authorities as well as others (e.g., social workers) in charge of disaster preparedness and responses for the community by making useful information available. For example, individual details, assistance needs, contacts, backup contacts, and so on, will help prioritize evacuation and other assistances (such as through the social safety net) for the most vulnerable.
- ***Adopt and implement a holistic approach to community-based disaster risk management (CBDRM), and use it as an opportunity for long-term integration of community voices and participation along the DRM cycle.*** CBDRM is often considered a training-oriented approach. While capacity building of community members is critical (such as early warning system user training, enhancing DRM literacy, and the like), the CBDRM scope and approach can be made more innovative by integrating community perspectives across different DRM cycle stages and varying DRM activities on the ground.
- ***Adopt evacuation drills as part of community cultures and events to effectively foster the culture of resilience in the community.*** The drills can integrate focused exercises for community members to learn how and when to evacuate, how to assist others based on individual needs, and how to use and maintain evacuation shelters as a community asset.

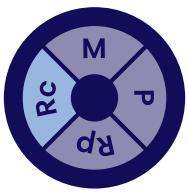


Entry Points for Response

Effective disaster response requires capacity building of communities and governments in advance, as noted above. Therefore, it would be important for DRM practitioners to integrate inclusive preparedness and response activities into their planning from the outset, leveraging several potential entry points:

- ***Make evacuation assistance available for those who need it.*** It is important to understand who requires assistance during an emergency as well as who can best assist people in need. Both those who will provide assistance and those who will receive it have roles to play and hence require capacity enhancements in acting together more efficiently and effectively during emergencies.
- ***Ensure inclusive physical and social access to emergency evacuation sites and shelters.*** Considering that evacuation sites and shelters must serve unspecified large numbers of people, it is important to make them accessible and comfortable for those with specific needs. There are ongoing efforts in parts of South Asia to design evacuation shelters with better access for people with mobility challenges (such as the elderly, pregnant women, PwDs, small children, and others) and include universal access designs for building entrances, toilets, and shower rooms. Further advancement can be made in terms of (a) *physical access* (for example, adopting building regulations for standard shelter designs and specifications with improved accessibility); and (b) *socially inclusive acceptance* at shelters (for example, ensuring nondiscrimination by users against people of specific backgrounds).
- ***Ensure equal and inclusive access to emergency services during disasters.*** For vulnerable people—often excluded from society and from standard societal services—it is critical and literally lifesaving to have secure access to emergency services when they need immediate assistance. Access to official assistance is often enabled upon successful proof of identification (ID) or other types of ownership documents. However, marginalized groups include stateless or other types of disadvantaged people who lack

ID records, as well as those such as women, landless, squatters, and others who tend to lack proof of home, land, or other types of asset ownership. It is important to make emergency services available and accessible to all who truly need them regardless of whether they have proof of identification or ownership deeds.



Entry Points for Recovery

South Asia's experience with disaster has highlighted many important lessons to make the recovery process more socially inclusive. Although the countries have made progress toward inclusive recovery processes, there are identified opportunities to advance further:

- ***Address the impact of social exclusion in post-disaster needs assessments (PDNAs).*** A PDNA is the first step that governments take to quantify and assess the impact of a disaster on the country. Given that the PDNA leads to the subsequent step of recovery planning—when reconstruction programs are budgeted—an effective approach is to identify and document the impacts on marginalized groups in relevant sectors of the PDNA.
- ***Identify the varying recovery assistance needs of marginalized groups, and integrate them into the recovery plans and budget allocations.*** The identified impacts on the marginalized people in the PDNA will help identify their recovery assistance needs during the subsequent recovery planning and budgeting process. This will facilitate implementation of a socially inclusive recovery program that can make the recovery process and outcomes truly inclusive.
- ***Ensure inclusive access to post-disaster recovery assistance for those in need, and make extra supports available for the most vulnerable people.*** To deliver recovery assistance where it is most needed, it is important to establish a mechanism to let the most vulnerable people access assistance—including the stateless, those without IDs, ethnic and religious minorities, and children or other dependent family members who lack documents to prove their status. It is also important to design

the service delivery with additional support for the most vulnerable to protect them from falling deeper into the poverty cycle. These might include additional top-up grants and/or physical support to help the elderly, single-parent households, child-headed households, and others during the reconstruction phase.

- ***Build the capacity of people involved in delivering recovery assistance services on the ground to more effectively serve marginalized people during the reconstruction process.*** Social exclusion exists in any part or layer of the society. To make the recovery outcomes on the ground truly inclusive, it is important to make sure that people involved in service delivery—such as local government officials and their partner groups, NGOs, and civil society organizations (CSOs)—have an appropriate understanding of the needs of marginalized groups as well as the capacity to act on them.
- ***Support both physical and social recoveries in parallel to restore people's lives.*** The physical recovery of buildings and infrastructure often gets attention and is well funded, while less attention is given to the recovery of social assets and livelihoods. Natural disasters have a prolonged impact on people's socioeconomic status (their livelihoods, mental health, and otherwise); therefore, it is important that efforts to support recovery address both social and physical assets.

BOX 3.2

Women-Led Community Resilience: Breaking Down Barriers in Bangladesh

The socially assigned role of women in many South Asian societies as caregivers and nurturers means that women can be the most effective risk managers for communities at times of disaster. "They know best about their own families' and local needs, and we believe they should be the main responders for [disaster risk reduction] assessment and support," says Abdul Alim of ActionAid Bangladesh.

A women-led community resilience effort was pioneered in Kolapara, a subdistrict of Bangladesh's Patuakhali District, which was badly hit by Cyclone Mahasen in May 2013. Damage assessment and procurement committees made up entirely of women visited the affected areas, assessed the damaged houses, and reported findings to the procurement team. They then led the budgeting process, selection of vendors, distribution, and monitoring of the reconstruction efforts.

The initiative initially faced some resistance from local interests. "Some areas are very traditional, and initially the vendors at the market didn't talk to the women when they tried to procure supplies," says Alim. "But they managed the expectations of their families at home, and nobody directly prevented them from participating."

The "ownership" aspect of such initiatives and decision making about placing funds directly into the hands of women are all-important factors that allowed these women to participate in and lead community preparedness activities in a more restrictive social context. "Women in these communities say that they have less influence than men usually. But since they have been included in [such] projects, men in their households have greater respect for them and discuss how funds should be dispersed," says Hadia Nusrat of the United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA) and UN Women.

These women went on to be trained in water and sanitation management, sustainable agriculture, building flood-resilient shelters, vegetable gardening, and rehabilitation. In doing so they are building the resilience of the local communities, developing the skills—and the confidence—to lead the response to local disasters, says Alim of ActionAid. "Recently, an embankment broke, and salinated water flooded the community. The women identified needs and petitioned ActionAid for funding."

Source: EIU 2014, 31.

3.3

The Way Forward

Inclusion matters for disaster and climate resilience in South Asia. This report attempts to address various social exclusion issues in the context of natural disasters and climate change, using the World Bank-financed DRM projects as case studies. The analytical work underpinning this report was informed by feedback and involvement from relevant project officials and stakeholders in all five countries. This approach yields concrete, practical entry points for enhancing social inclusion in DRM interventions corresponding to highly demanded DRM focus areas in South Asia.

The potential entry points are summarized as Inclusive Resilience Action Plans, some of which are already planned to be adopted into new and ongoing projects. To facilitate the implementation of the proposed action plans, subject-matter experts have been providing focused support to the implementing agencies of the associated World Bank-financed DRM projects. As the Inclusive Resilience Action Plans are implemented and more is learned from their experience, there will be opportunities to replicate and customize these efforts in different country and project contexts as well as expand upon them. As stated earlier, the Inclusive Resilience Action Plans presented in this report are not intended to be exhaustive given their development based on specific case studies in specific project contexts. As DRM and social development practitioners work together to advance inclusive resilience in South Asia, more ideas and actions will emerge and evolve, contributing to a more comprehensive understanding on how to advance this agenda.

To conclude, this report has contextualized social inclusion issues in South Asia, specifically within the DRM sector, and has presented and illustrated concrete entry points to incorporate inclusion into resilience building. It demonstrates that DRM practitioners can take a variety of actions to advance the social inclusion agenda. The examples and actions shared in this report suggest that addressing inclusion in DRM does not have to be expensive or complicated and therefore can be practically integrated into project activities.

Expanding upon this work through additional research and analysis of other DRM topics in a variety of contexts not covered in this report will be an important way to advance this agenda. One caveat of this work is that the actions and entry points identified are not necessarily comprehensive because they do not cover all the DRM topics or country contexts of South Asia. Yet they still serve collectively as a valuable guide to other countries and projects that are dealing with similar challenges in the DRM space. As the knowledge and evidence base for inclusive resilience grows, so too will the opportunities to improve inclusion across various DRM focus areas specific to a particular country, locale, or project context. As inclusive resilience approaches gain more traction from international, national, and local stakeholders (including the private sector, CSOs, and individuals), DRM interventions will be implemented with a strengthened understanding of the impacts and needs of various groups, thereby helping to ensure that "resilience" is truly meant for *all* people. Therefore, this work is not only complementary to poverty reduction strategies; it supports the protection of development gains by helping to ensure that prosperity is shared across communities in South Asia.

Notes

1 The term "grassroots women" refers to "women who live and work in poor and low-income communities, who are economically, socially and politically marginalized, and whose survival and everyday lives are directly affected by natural hazards and climate change" (Fordham et al. 2011, ii).

2 Guiding Principle 36 (a) (iv) of the Sendai Framework for Disaster Risk Reduction 2015–2030, adopted at the Third UN World Conference on Disaster Risk Reduction (WCDRR) in March 2015.

3 For more information about California's wireless alert system, see the California Governor's Office of Emergency Services (Cal OES) website: http://calalerts.org/.

4 Google is advancing this agenda in innovative ways. For more information about its accessibility features and products, see its accessibility website: google.com/accessibility.

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A.

Project-Specific Inclusive Resilience Action Plans

Appendix

This section summarizes the potential entry points drawn from the Inclusive Resilience Action Plans developed for each DRM focus area in the five selected countries. The menu of actions will keep growing as we learn more.

Country example
Sri Lanka

Early Warning Systems

Relevant DRM stages:
Preparedness and Response

INCLUSIVE RESILIENCE RECOMMENDATIONS

i) Design and implement early warning systems to increase outreach to socially excluded groups and individuals.

- Ensure message delivery to those with different capabilities and needs using technologies (for example, text-to-speech, live transcription, live captions, and so on).
- Establish community early warning committees to ensure the concerns of marginalized communities are included in DRM planning and programming.
- Strengthen early warning system and protocols.

ii) Build capacity of communities to better understand, interpret, and use early warning information and take appropriate mitigation measures.

- Train community members to understand, interpret, and use early warning messages, addressing varying capabilities and needs of different user groups.

iii) Develop a disaster-responsive social registry of vulnerable people by leveraging existing registration systems, and share them regularly with relevant authorities.

- Develop an up-to-date social registry of vulnerable people to better assist them at the time of disasters.
- Enhance community capacity to leverage their capabilities for community-level disaster preparedness and response based on early warnings.
- Update the social registry on a regular basis and share it with local government authorities, community-based organizations, nongovernmental organizations, first responders, and others to help ensure smooth evacuation when disaster strikes.

Country example
Sri Lanka

Flood Risk Mitigation Infrastructure (Embankments)

Relevant DRM stages:
Mitigation, Preparedness, and Response

INCLUSIVE RESILIENCE RECOMMENDATIONS

i) Engage communities to be part of the design, construction, and maintenance of flood risk mitigation infrastructure, such as embankments.

- Establish a citizen monitoring committee as an interface with communities that enables two-way communication between citizens and the government as well as increases a sense of community ownership for the asset (for example, by providing feedback on infrastructure design and construction practices, monitoring water levels during heavy upstream rain, and so on).
- Adopt universal design features to ensure accessibility in flood protection infrastructure and public space design (for example, railings and ramps for infrastructure, separate communal bathing spots for men and women, and so on).

ii) Adopt an objective resettlement assistance plan to nurture social inclusion through the resettlement process.

- Raise awareness and support behavioral change regarding joint ownership of land and assets targeted toward men and women in consultation with legal and financial institutions. Ownership of assets through joint ownership can yield better outcomes for women and also serve as a safety net for the households if one partner is lost during the disaster.
- Provide cash grants, livelihood assistance, and physical assistance for vulnerable households during the relocation process (such as for the elderly, PwD, single-parent heads of households, and others).
- Incorporate universal design with accessibility features for individual houses and community structures in relocation sites, if relevant.
- Make counseling services available to address the emotional and psychological needs of individuals.

Country example
Bangladesh

Agrometeorological Information for Farmers

Relevant DRM stages:
Preparedness and Response

INCLUSIVE RESILIENCE RECOMMENDATIONS

i) **Customize agrometeorological (agromet) information and communication systems to effectively deliver customized information and messages to socially excluded farmer groups according to appropriate methods and timing (for example, use of pictorial or universal symbols, information boards at central locations, radio, SMS [text] messaging, and in-person message delivery through community volunteers).**

- Customize information and message contents based on user needs including location-specific information, hazard types, and alternative presentation of contents to ensure that messages are understood by farmers with little or no literacy.
- Adopt message delivery methods and timing to ensure that information and messages can reach all groups through alternative communication channels, outreach methods, and different timings, to give people enough time to make appropriate decisions to manage risks.
- Engage users, including excluded groups, and leverage existing social forums and programs (for example, farmers' associations and women's groups) to effectively reach out to them and improve inclusivity of the agromet services. It is also critical to enhance diversified community representation in such forums and platforms to recognize the voices of often-excluded groups.

ii) **Organize capacity-building programs to enhance the "disaster literacy" of excluded groups and leverage the agromet information and services provided.**

- Train community leaders, such as union parishad members, elected ward-level members, and other trusted community leaders in agromet information and services for better understanding and wider outreach.
- Incorporate social inclusion components in trainings for agromet system designers and service to sensitize them on how different groups receive agromet information and how to ensure these messages are accessible and actionable to all.

iii) **Establish regular feedback mechanisms for continuously improving agromet and early warning information dissemination mechanisms.**

- Establish an inclusive process for gathering feedback by actively seeking participation of excluded groups (for example, door-to-door visits to solicit inputs from women).
- Engage existing groups and platforms (for example, disabled people's organizations, women's self-help groups, and so on) to create a sustainable mechanism for feedback collection and follow-ups.

Country example
India

Multipurpose Cyclone Shelters

Relevant DRM stages:
Preparedness and Response

INCLUSIVE RESILIENCE RECOMMENDATIONS

i) Improve inclusiveness of the multipurpose cyclone shelters (MPCSs) by making their location and design accessible.

- Build cyclone shelters in safe and accessible locations, on the basis of risk assessment, with accessible design features for the disabled, elderly, pregnant, and others.
- Establish sustainable and ongoing consultation mechanisms with vulnerable people to capture necessary design improvements to inform a model design for future shelters, including recommendations for retrofitting existing shelters.

ii) Foster community ownership and engagement of the MPCSs to ensure effective management of the shelters during disasters and to enhance community resilience.

- Encourage communities' use of MPCSs during non-disaster times to familiarize them with the buildings and manage them as communities. This will help communities to effectively run the evacuation shelters during actual disasters.
- Foster a culture of social inclusion in the use of MPCSs. Evacuees should know that (a) all are welcome at the cyclone shelters; (b) dedicated space is available for those requiring special attention (such as safe spaces for women and children); and (c) people from all backgrounds are treated equally at MPCSs.
- Use shelters for economic and social inclusion activities during nondisaster times to generate revenue (as practiced in NCRMP II), which can be used to fund social inclusion activities in the community.

iii) Improve information to help prioritize evacuation of the most vulnerable.

- Develop a georeferenced social registry that lists the most vulnerable people in the community (such as PwD, the elderly, and pregnant women) to facilitate effective and timely evacuation assistance and rescue services.
- Provide assistance to the most vulnerable for priority evacuation, rescue, and post-disaster recovery.
- Train government officials and local community representatives to identify and prioritize support for the most vulnerable populations.
- Train community members to be able to help the vulnerable during rescue and evacuation, accounting for their unique needs and capabilities.
- Use local and traditional knowledge in the design and delivery of capacity-building activities. A capacity assessment matrix can be a useful tool to identify pre-existing capacity within communities that can be used or strengthened during a disaster.

iv) Increase the inclusiveness and diversity of the disaster management teams (DMTs) and Cyclone Shelter Management and Maintenance Committees (CSMMCs).

- Diversify representation of DMTs and CSMMCs by seeking participation from different genders, ages, and religious and occupational groups.
- Train DMTs and CSMMCs to identify their own needs and prioritize support for vulnerable groups.
- Establish standard operating procedures for managing shelters for different user groups.

Country example
Nepal

Housing Reconstruction

Relevant DRM stage:
Recovery

INCLUSIVE RESILIENCE RECOMMENDATIONS

i) Make housing support more inclusive by broadening the vulnerability criteria used for deploying special assistance packages.

- Improve vulnerability criteria for better targeting, coordination, and delivery of assistance.
- Provide reconstruction support to vulnerable groups who may need extra support to liaise with masons, engineers, and other reconstruction service providers for timely completion.
- Improve access to institutional finance for reconstruction and recovery by including provision of revolving funds or collective guarantee loans, where the local government acts as a guarantor for vulnerable people.
- Raise awareness of reconstruction processes and available support (such as concessionary loans) among vulnerable groups.

ii) Augment the capacity of government officials to effectively serve socially excluded groups.

- Build the capacity of local government (such as ward officials) to support the most vulnerable effectively by raising awareness of (a) the needs of vulnerable groups; (b) efficient delivery of services to them; (c) sensitive, timely, and equitable redress of grievances.
- Develop a mechanism for proactive outreach and information dissemination specific to local contexts, especially targeting vulnerable and marginalized groups.
- Engage social mobilizers to bolster government capacity to support vulnerable groups.

iii) Provide livelihood support to strengthen economic recovery of vulnerable groups alongside housing reconstruction.

- Design livelihood support programs based on varying capabilities and needs to complement physical recovery (e.g., housing reconstruction).

Country example
Pakistan

Community-Based DRM (CBDRM)

Relevant DRM stages:
Mitigation, Preparedness, Response, and Recovery

INCLUSIVE RESILIENCE RECOMMENDATIONS

i) Adopt a more holistic approach to CBDRM and use it as an opportunity for long-term integration of the community along the DRM cycle.

- Engage communities in risk identification by conducting vulnerability and hazard assessments per locality by using existing DRM platforms (for example, local community disaster management groups and Union Council Disaster Management Committees).
- Map hazards and social vulnerability to maintain local settlement maps and vulnerability registers as part of disaster preparedness. Use these maps to propose more responsive and effective DRM interventions (such as adaptive social protection and service protocols during disasters, targeted and location-specific relief and recovery support, and inclusive early warning message delivery).
- Assess existing CBDRM activities in partnership with communities for their responsiveness to the diverse needs of individuals and groups by proactively consulting with vulnerable groups, addressing their needs in community-level DRM plans, and recommending necessary changes to CBDRM activities.

ii) Strengthen and enhance inclusive outreach to and within communities.

- Enhance community outreach through non-traditional channels to ensure outreach to people often left out from traditional communication chains.
- Hold DRM trainings in accessible locations that allow vulnerable groups, especially women, to participate (for example, in small neighborhood circles and existing platforms such as women's self-help groups).

iii) Improve CBDRM training content and delivery methods by engaging communities in the development of training materials such that outcomes of the training are truly inclusive.

- Design inclusive CBDRM trainings that reflect the identified needs of excluded groups. This includes the development of inclusive training content, manuals, and learning tools by reflecting the voices and experiences of the vulnerable people.
- Strengthen communities' capacity (as part of training and capacity development) to better access public assistance.
- Leverage community platforms (such as women's self-help groups) to engage excluded groups.
- Enhance the capacity of local governments to better serve the excluded through sensitization, regular trainings, and disaster drills on how to reach out to and sensitively interact with PwD, women, and other vulnerable groups.

Note: DRM = disaster risk management. NCRMP II = National Cyclone Risk Mitigation Project, phase 2. PwD = persons with disabilities. SMS = short message service.

Inclusive Resilience

Inclusion Matters for Resilience in South Asia

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