

Disaster, Displacement and Resilient Livelihoods

DIVERSE PERSPECTIVES ON CREATING A FAIRER SOCIETY

A fair society is one that is just, inclusive and embracing of all without any barriers to participation based on sex, sexual orientation, religion or belief, ethnicity, age, class, ability or any other social difference. One where there is access to healthcare and education, technology, justice, strong institutions, peace and security, social protection, decent work and housing. But how can research truly contribute to creating global equity and diversity without showcasing diverse voices that are underrepresented in academia or paying specific attention to the Global South?

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Disaster, Displacement and Resilient Livelihoods: Perspectives from South Asia

EDITED BY

M. REZAUL ISLAM

University of Sharjah, United Arab Emirates

&

University of Dhaka, Bangladesh



United Kingdom – North America – Japan – India – Malaysia – China

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INVESTOR IN PEOPLE

*(Late) Charles Pradhan (1959–2020), one of co-authors of the Chapter 8
of this edited book who passed away recently.*

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Contents

List of Figures and Tables	ix
About the Contributors	xiii
Foreword	xvii
Acknowledgements	xviii
Chapter 1 Introduction: Disaster, Displacement and Resilient Livelihoods in South Asia	
<i>M. Rezaul Islam</i>	1
Chapter 2 Research Trends on Natural Disasters in the Context of India: A Bibliometric Analysis	
<i>Babul Hossain, Md Nazirul Islam Sarker, Guoqing Shi and Md. Salman Sohel</i>	17
Chapter 3 Household Vulnerability and Resilience to Natural Disasters in Pakistan: A Systematic Literature Review	
<i>Babul Hossain, Md Nazirul Islam Sarker, Guoqing Shi and Md. Salman Sohel</i>	35
Chapter 4 Disaster Vulnerability, Displacement and Resilient Livelihoods Among the Afghan Urban Women	
<i>Marina Hamidazada and Ana Maria Cruz</i>	55
Chapter 5 Livelihood Resilience of Climate-Induced Displaced People in South Asia: Implications for Bangladesh	
<i>Md Nazirul Islam Sarker</i>	81

Chapter 6 An Assessment of Population Displacement and Resilience Livelihood Options Among River Erosion-affected People in Bangladesh	
<i>M. Rezaul Islam and Walter Leal Filho</i>	99
Chapter 7 Community Resilience Initiatives Among River Erosion Affected People in Bangladesh	
<i>M. Rezaul Islam</i>	121
Chapter 8 Disaster and Displacement: Opportunities and Challenges for Enhancing Resilience in Nepal	
<i>Raju Chauhan, Sudeep Thakuri and Charles Pradhan</i>	143
Chapter 9 Disaster, Displacement and Resilient Livelihoods in Sri Lanka: Policy Imperatives	
<i>R. Lalitha S. Fernando, Manjitha Kavindi Siriwardhana, E. Achini Indrachapa Kularathna and H. D. M. Kaushalya Geethamali</i>	163
Chapter 10 Conclusions: Disaster, Displacement and Resilient Livelihoods in South Asia	
<i>M. Rezaul Islam</i>	193
Index	199

List of Figures and Tables

Figures

Fig. 2.1.	Annual Growth of Natural Disasters Related Documents in the Context of India (2008–2022).	23
Fig. 2.2.	Top 10 Articles Published in the Journal Regarding the Indian Context.	29
Fig. 2.3A.	Network Visualization Map of Keywords Analysis.	30
Fig. 2.3B.	Wordcloud Top 20 Author Keywords.	30
Fig. 2.4.	Distribution of the Most Productive Sponsor for the Fund to Publication.	31
Fig. 3.1.	Map Showing the Key Terminology of the Study.	40
Fig. 3.2.	Document Selection by PRISMA.	41
Fig. 3.3.	Livelihood Vulnerability Components.	44
Fig. 3.4.	Major Components of Livelihood Resilience.	47
Fig. 4.1.	Location of District 13 in Kabul Municipality Area.	63
Fig. 4.2.	Number of Women and Men (Aged 18–59) Victims of Disasters in Kabul Province.	64
Fig. 4.3.	Photo of Women FG in District 13 of Kabul City, 26 January 2017.	65
Fig. 4.4.	Photos of Men’s FG in District 13 of Kabul City, 26 January 2017.	72
Fig. 4.5.	Factors of Afghan Urban Women’s Pre-Disaster Vulnerability Based on FGs, January 2017.	72
Fig. 4.6.	Factors of Afghan Urban Women’s Post-Disaster Vulnerability Based on FG Data, January 2017.	75
Fig. 4.7.	Digraph of Vulnerability of Women in Urban Area Based on ISM.	77
Fig. 5.1.	Document Selection Process.	87
Fig. 6.1.	Study Areas in the Bhola District, Bangladesh.	104
Fig. 6.2.	Had to Displace Due to River Erosion.	107
Fig. 6.3.	Time of Displacement.	107
Fig. 6.4.	Last Displacement.	107
Fig. 6.5.	Causes of Displacement.	108

x List of Figures and Tables

Fig. 6.6.	Places of Displacement.	108
Fig. 6.7.	Plan of Displacement.	109
Fig. 6.8.	Reasons of Planned Displacement.	109
Fig. 6.9.	Dependency on Natural Resources for Income and Consumption.	109
Fig. 6.10.	Activities Engaged for Income.	110
Fig. 6.11.	Major Livelihood Options.	110
Fig. 6.12.	Satisfied With Present Livelihood Option.	111
Fig. 6.13.	Livelihood Changed Between 2013 and 2018.	111
Fig. 6.14.	Problems Faced by the Affected People in Their Present Form of Livelihoods.	111
Fig. 6.15.	Interventions for Reduce Population Displacement and Increase Livelihood Options.	114
Fig. 7.1.	Conceived Loss During River Erosion.	127
Fig. 7.2.	Type of Preparedness.	128
Fig. 7.3.	Received Assistance from UDMC.	130
Fig. 7.4.	Received Assistance from Government Services.	130
Fig. 7.5.	Received Any Relief After Erosion.	130
Fig. 7.6.	Sources of Relief.	131
Fig. 7.7.	Material Received from the Relief Organization.	131
Fig. 7.8.	Impression about Relief Operation.	131
Fig. 7.9.	Received Assistance From Government for Recovery and Construction After Erosion.	132
Fig. 7.10.	Type of Assistant Received.	132
Fig. 7.11.	Government Taken Permanent Measure for Stop Erosion.	132
Fig. 7.12.	Actions Taken by the Government to Mitigate River Erosion.	133
Fig. 7.13.	Impression on Government Actions to Stop Erosion.	133
Fig. 7.14.	Whether NGO Initiated Recovery Measures.	133
Fig. 7.15.	Recovery Measures Taken by the NGOs.	133
Fig. 7.16.	Indigenous Coping Strategies of Households Against River Bank Erosion (%)	135
Fig. 7.17.	Participate in Decision-making of Recovery Planning During Riverbank Erosion.	136
Fig. 7.18.	Nature of Households' Participation in Recovery Program Planning.	136
Fig. 7.19.	Development of Decision-making Process (%).	136
Fig. 8.1.	Frequency of Disaster Incidents (a) and Disaster-induced Death (b) Between 1971 and 2019.	147
Fig. 8.2.	Number of Disaster-induced Displacements by Disaster Type Globally in 2019.	148
Fig. 8.3.	Disaster-induced Displacement Events in Nepal During 2008–2019.	149

Fig. 8.4.	Drivers of Disaster-induced Displacement in Nepal.	152
Fig. 8.5.	Scattered Settlements and Temporary Shelters of the Displaced Families Due to Gorkha Earthquake in the Majhi Village of Bhimtar, Sindhupalchok (a), Damaged Houses in the Area (b), and Integrated Settlement Built by Swetashree Foundation for Majhi Communities in the Same Area (c).	155
Fig. 10.1.	Objectives of GFDRR.	196

Tables

Table 1.1.	Basic Data of South Asian Countries.	7
Table 1.2.	Common Disasters in South Asia.	8
Table 1.3.	Strengthen Resilience and Adaptive Capacity to Climate-Related Hazards and Natural Disasters in South Asia.	9
Table 2.1.	Research Protocol Details.	21
Table 2.2.	Search String of the Study.	22
Table 2.3.	Main Features on the Metadata ($n = 1,293$) After Exclusion.	24
Table 2.4.	Distribution of Subject Area on Natural Disasters Research.	25
Table 2.5.	Combined Research Pattern in Natural Disasters.	26
Table 2.6.	Top 10 Most Cited Authors on Natural Disaster Research.	27
Table 2.7.	Top Five Most Cited and Prominent Articles on Natural Disasters in the Case of India.	28
Table 3.1.	Research Protocol Details.	39
Table 3.2.	Household Vulnerability Assessment in the Context of Pakistan.	42
Table 3.3.	Major Indicators of Livelihood Vulnerability.	43
Table 3.4.	Major Indicators of Livelihood Resilience.	45
Table 4.1.	Distribution of Participants in the Focus Group Discussions in Kabul Province.	65
Table 4.2.	Example Questions Showing Different FG Responses, January 2017 Afghanistan.	67
Table 4.3.	Example Questions with Different FG Responses Used to Develop the Grounded Theory Disaster Education and Preparedness Category, January 2017 Afghanistan.	68
Table 4.4.	List of the Main Categories of Factors Identified Affect Women's Vulnerability in Pre- and Post-Disaster Situations and Strengths.	70
Table 4.5.	Categorizing the Codes: List of Categories Identified and the Number of Codes Falling Under Each Category for the Women, Men, and DRR Staff Focus Group Discussions.	71

xii List of Figures and Tables

Table 4.6.	Example of the Reachability Matrix (in Urban Area Study).	76
Table 5.1.	Search and Selection Criteria.	86
Table 5.2.	Summary of Livelihood Dimensions of Displaced People.	88
Table 5.3.	Summary of the Reasons for the Vulnerability of Displaced People.	90
Table 5.4.	Summary of Livelihood Resilience Dimensions of Displaced People.	91
Table 6.1.	Distribution of Population and Sample Size.	105
Table 6.2.	Sociodemographic Information of the Respondents.	106
Table 6.3.	Engagement of Family Members in Income-generating Activities During Disasters (%).	112
Table 7.1.	Distribution of Population and Sample Size.	125
Table 7.2.	Qualitative Data: Data Collection Instruments and Respondents.	126
Table 7.3.	Preparedness and Initiatives Against River Erosion (%).	127
Table 7.4.	Protection Arrangements of the Households, Cattle, Store Grain, Storage System and Ways to Reduce Cost During River Erosion.	129
Table 8.1.	Major Disasters and Loss and Damage in Nepal, 1971–2019.	146
Table 8.2.	Disaster-induced Displacement in Nepal.	149
Table 9.1.	Damages That Sri Lanka Faced Due to Disasters in the Last 20 Years of Period.	173
Table 9.2.	Types of Damages That Have Occurred Due to Each of the Disasters in the Period of 2000–2020.	174
Table 9.3.	The Livelihood Activities of the Victims and Their Best Practices of Disaster Resilience.	178

About the Contributors

Raju Chauhan Raju Chauhan holds M.Sc. in Environmental Science from Tribhuvan University (TU) with specialization on Disaster Risk Management and Climate Change. He is a recipient of Chandra Gurung Memorial Fellowship. Currently, he holds the position of Assistant Professor of Environmental Science at Tribhuvan University (TU), Nepal. Prior to joining TU, he worked for the Government of Nepal as an Environment Specialist. His multidisciplinary research focuses on the disaster risk management and resilience, climate change, environmental policy, environmental modelling and geospatial applications. He has contributed several articles in national and international journals and is also a member of IRDR young scientist program.

Ana Maria Cruz is a Professor at the Disaster Prevention Research Institute of Kyoto University in Japan. She obtained a degree in Chemical Engineering holds an M.Sc. in Applied Development, and a Ph.D. in Environmental Engineering from Tulane University in the United States. She has worked in the private and public sectors, in academia and with government at the local and international levels in four continents. She has pioneered research concerning natural hazard triggered technological accidents (known as Natechs) since 1998. She has peer-reviewed over 75 publications on the topic. She serves as the Editor In-Chief for *IDRiM Journal* and the Editor of the *Journal of Loss Prevention in the Process Industries* (Elsevier). She is the President of the International Society for Integrated Disaster Risk Management (IDRiM Society), and a member of several international committees for disaster risk management and Natech risk reduction.

R. Lalitha S. Fernando, PhD, currently, serves as a Senior Professor and the Chair of the Department of Public Administration, the Director of the Research Centre for Governance and Public Policy and Coordinator of the Master of Public Management. She holds M.Sc. in Public Policy and Management of the University of Sri Jayewardenepura, Sri Lanka. She was awarded the prestigious Commonwealth Academic Scholarship to pursue Postgraduate Diploma in Development Studies and Master's in Development Administration and Management at the University of Manchester, U.K., and also a full-time scholarship to pursue the Doctoral study from the Graduate School of Public Administration, NIDA, Bangkok, Thailand. She published journal articles, book chapters and books at both national and international levels in the fields of Disaster Management, Educational Management, Waste Management, and Sustainable Development.

Walter Leal Filho, PhD, is a Professor and holds the Chairs of Climate Change Management at the Hamburg University of Applied Sciences (Germany), and Environment and Technology at Manchester Metropolitan University (UK). He directs the Research and Transfer Centre ‘Sustainability Development and Climate Change Management’. His main research interests are in the fields of sustainable development and climate change, also including aspects of climate change and health.

H. D. M. Kaushalya Geethamali obtained B.Sc. Public Management (Special Degree with a Second Class (Upper Division) at the University of Sri Jayewardenepura in Sri Lanka. Currently, she serves as a Research Assistant attached to the Research Centre for Governance and Public Policy of the University. She is a co-author in several publications in the fields of Public Policy and Governance.

Marina Hamidazada, PhD, earned her Mse in Civil Engineering from Afghanistan and PhD in Urban Management (Disaster Risk Management) from Kyoto University of Japan. She has worked in national and international agencies and institutions inside and outside Afghanistan. She has pioneered research concerning women in disaster risk management in Afghanistan. She served several years in United Nation and international agencies for the improvement of Afghan women lives. She is a member of several international networks and societies for women in Disasters. She was a Project Specific Researcher with DPRI Kyoto University (Jan–March 2022) and from 2016 to 2019.

Babul Hossain, PhD, is currently affiliated with Management Science and Engineering, Hohai University, Nanjing, China. He received Ph.D. in Sociology from Hohai University, Nanjing, China. He participated in several world-class conferences and workshops at home and abroad. He has also published many articles in prestigious journals. He is also working as a Reviewer in various prominent journals. His research interest includes climate change, natural disaster, migration and displacement, and rehabilitation and resettlement.

M. Rezaul Islam, PhD, is currently involved as Post Doc Fellow and Lead Researcher at the Centre for Family and Child Studies, Research Institute of Humanities and Social Sciences, University of Sharjah, United Arab Emirates; a Professor in Social Work at the Institute of Social Welfare and Research, University of Dhaka, Bangladesh; a Senior Research Fellow with BRAC Institute of Governance and Development (BIGD), BRAC University, Bangladesh; an Academic Fellow with the School of Social Sciences, Universiti Sains Malaysia, Malaysia; and a Senior Research Associate with the Department of Social Work, University of Johannesburg, South Africa. He received his Master of Social Work (MSW) and Ph.D. from the University of Nottingham, England. His teaching and research areas include health and wellbeing, community development, family and child care, international and comparative social policy, climate justice, international labour migration, poverty and social inequality, and social change and globalization. He has published 110 journal articles, 20 book chapters, and 10 books in the reputed international publishers. Currently, he is working as a member of the International Advisory Board of the Community Development

Journal (Oxford University Press) and Editorial Board Member with four journals, e.g. *Asian Social Work and Policy Review* (Wiley), *Local Development & Society* (Taylor & Francis), *International Journal of Community Well-being* (Springer) and *SN Social Sciences* (Springer). Along with his work at University, he has also been heavily involved with international organisations such as World Bank, UNDP, UNICEF, ILO, ADB, British Council, Plan International, Concern Universal UK, Concern Worldwide, etc.

E. Achini Indrachapa Kularathna obtained B.Sc. Public Management (Special Degree with a Second Class (Upper Division) from the University of Sri Jayewardenepura in Sri Lanka. Currently, she serves as a Research Assistant attached to the Research Centre for Governance and Public Policy of the University. She is a co-author in several publications in the fields of Public Policy and Governance.

Charles Pradhan holds an M.Sc. degree in Interdisciplinary Natural Resources Development and Management from Asian Institute of Technology (AIT), Bangkok, Thailand and an M.Sc degree in Ecology from Tribhuvan University, Kathmandu. During the last 25 years, he has been involved in environment conservation and development activities which included DRR/CCA research and development studies, integrated development projects in Nepal which deal with integration of environment, climate change adaptation, conservation, and DRR/Disaster Preparedness/CCA activities. He has also been involved in Environment, DRR/CCA which includes disaster resilient linking with 'Linking Relief, Rehabilitation and Development (LRRD) and Build Back Better (BBB)' approach in Nepal.

Md Nazirul Islam Sarker, PhD, is an Academic Fellow in the School of Social Sciences, Universiti Sains Malaysia, Pulau Pinang, Malaysia. He received Ph.D. from Sichuan University, Chengdu, China. His research includes resilience, vulnerability, social issues, urban and disaster management, agricultural extension, governance, public policy, and sustainability. He is an Academic Editor of *PLOS One*, *PLOS Sustainability and Transformation*, *BMC Public Health*, *BMC Research Note*, and *Journal of Environmental and Public Health*.

Guoqing Shi, PhD, is a Professor and the Director of the Asian Research Center and National Research Center for Resettlement, and the Dean of the School of Public Administration, Hohai University, Nanjing, China. He was one of the founding members of INDR (International Network on Displacement and Resettlement). His research includes migration and displacement, and rehabilitation and resettlement. He is a doctoral and master's degree supervisor for many students.

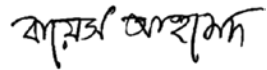
S. M. Manjitha Kavindi Siriwardhana obtained B. Sc. Management (Public) (Special Degree at the University of Sri Jayewardenepura, Sri Lanka, in 2019. She serves as a Research Assistant in the Research Centre for Governance and Public Policy, Department of Public Administration, Faculty of Management Studies and Commerce, University of Sri Jayewardenepura, from September 2020 to October 2021. Her research areas of interest are educational leadership, disaster management, public policy analysis, and governance.

Md. Salman Sohel is currently working as a Lecturer in Development Studies, Daffodil International University, Dhaka, Bangladesh. He received his Master's degree from Hohai University, China. He has published in the top publishers, including Elsevier, Wiley, Taylor and Francis, Springer, Emerald, Frontiers, and MDPI. His research interest includes Migration, International Migration and Immigration, Refugee, Resettlement, Climate change, disaster management, Displacement, Informal economy etc.

Sudeep Thakuri, PhD, is a Dean of Mid-West University Nepal and an Associate Professor of Environmental Sciences at the Central Department of Environmental Sciences, Tribhuvan University, Nepal. He holds a PhD in Natural and Environmental Sciences from the University of Milan, Italy. He is teaching and conducting researches on the climate change, cryospheric processes, and mountain hazards through the application remote sensing, field-based observations, and modelling in the Himalayan region, and has contributed over 100 scientific articles at the international and national journals. He had previously worked as an Expert with different national and international organizations, including UN Food and Agriculture Organization, WWF Nepal, University of Milan, Institute of Water Research – National Research Council, and Ev-K2-CNR Association of Italy in various roles.

Foreword

Natural hazard-induced disasters have multifaceted impacts on society and frontline communities. Disasters along with human-caused climate changes cause severe loss and damage to livelihoods, public health, and critical services, and adversely affect social, economic, environmental, and institutional components of a community. Disasters also affect people's ability to cope with extreme weather events and their mobility decisions. It is estimated that over 50 million people will be forced to internally migrate in South Asia by 2050 and millions more will be living in extreme conditions. As such, M. Rezaul Islam and his colleagues' work on disaster displacement and climate mobility highlighting South Asia, a major hotspot for climate crisis, is contemporary and much needed in the global context. I strongly believe this book will be a valuable resource for policymakers, activists and researchers worldwide who are relentlessly working to mitigate the sufferings of frontline communities and create a global consensus on confronting climate catastrophe.



Bayes Ahmed, PhD, FRGS
Associate Professor in Risk and Disaster Science
Institute for Risk and Disaster Reduction (IRDR)
University College London (UCL), UK

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M. Rezaul Islam (PhD)
(Editor)

Chapter 1

Introduction: Disaster, Displacement and Resilient Livelihoods in South Asia

M. Rezaul Islam

This edited volume highlights disaster, displacement and resilient livelihood options for the South Asian countries. This region is diverse in terms of its culture, socioeconomic and political structure, livelihood patterns and natural environment. The volume examined the resilience of communities in South Asia to disasters and the displacement they cause. It considers their risk landscape and resilience capacity in Afghanistan, Bangladesh, India, Nepal, Pakistan and Sri Lanka. Despite increasing disaster risk in South Asian countries, awareness and understanding of this risk among individuals and governments remains low. As an emerging topic, exposure and vulnerability to natural hazards and their consequential impacts are not yet at the forefront of development agendas. However, mitigating the unforeseen consequences of disasters in this region is important for achieving development goals. Though there are many publications on this area but none of them explores the resilient livelihoods to consider the country's diverse local context, resources, people's capacity and policy options. The book harnessed disaster, displacement and resilient livelihoods across a range of diversities of people and place to generate previously unheard insights, offering a truly global perspective on the current societal and regional debates of the twenty-first century. To consider these key issues, the volume explores to achieve some key objectives such as to know (i) the country-wise brief discussion about disasters in general, (ii) the process of displacement as consequence of disaster, and (iii) mapping the resilient livelihoods. To quest of these queries, the book located some key linkages and factors of the multidimensional risks communities face, their assets, and livelihoods in which they operate. It considers communities' capacity to prevent displacement, their ability to mitigate protection risks during displacement and their options in terms of durable solutions. This volume offers a resilience building framework that incorporates common principles, while retaining flexibility and adaptability to communities' specific risk environments.

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Conceptual Explanation

Disaster, Risk and Hazards

In general, disaster is a sudden accident or a natural catastrophe that causes great damage or loss of life. In another way, disasters are serious disruptions to the functioning of a community that exceed its capacity to cope using its own resources (IFRC, n.d.). Disaster is a French word that combines 'Des' and 'Aster' where 'Des' means 'Bad' and 'Aster' means 'Star' thus the term Disaster refers to 'Bad or Evil Star'. Disasters, however, are the catastrophic events resulting in heavy losses in terms of human, animal and plant lives, injuries and disabilities and damage to property and environment. The Asian Disaster Reduction Center (ADRC) (2003) define this as a serious disruption of the functioning of society, causing widespread human, material or environmental losses which exceed the ability of affected society to cope using only its own resources. Landsman (2014) defined it as any event, typically occurring suddenly, that causes damage, ecological disruption, loss of human life, deterioration of health and health services, and which exceeds the capacity of the affected community on a scale sufficient to require outside assistance. Disaster can be natural, geophysical, hydrological, metrological, biological, climatological and social (manmade). This book will look disaster as natural disaster. Natural disaster is one kind of a natural event such as a flood, earthquake, or hurricane that causes great damage or loss of life. Hazards, risk and vulnerability are the consequences of natural disasters. Disaster risk is the harmful consequences, or expected loss of lives, people injured, property, livelihoods, economic activity disrupted (or environment damaged) resulting from interactions between natural or human induced hazards (Faisal, Saha, Sattar, Biswas, & Hossain, 2021). Risk is usually associated with the human inability to cope with a particular situation. In risk, there is probability of harmful consequences, or expected losses death, injury, damage to property and the environment, jobs, disruption of economic activity or social systems. Hazards may affect to the communities inversely in terms of ability and resources with which to cope. Poorer communities may be more at risk than others. On the other hand, a hazard is a process, phenomenon or human activity that may cause loss of life, injury or other health impacts, property damage, social and economic disruption or environmental degradation. According to the Western Cape Government (2015), a hazard can be defined as a potentially damaging physical event, social and economic disruption or environmental degradation. Typical examples of hazards can be absence of rain (leading to drought) or the abundance thereof (leading to floods). Natural hazards become disasters when people's lives and livelihoods are destroyed.

Disaster Displacement and Migration

Disaster displacement is such kind of displacement when the disaster affected people are pressed or exiled by the pressure of disasters due to the lack of livelihoods commodities or livelihood options such as drinking water, shelter, and protection. This situation bound the affected people to displace from their origin of residence or shelter. On the other hand, migration is one kind of planned

relocation in which the affected people move to better location where they assume to face lower natural disaster but better life. [Renaud, Bogardi, Dun, and Warner \(2007\)](#) divided the ‘environmentally displaced people’ into three groups according to their relation to environmental disruption: environmental emergent migrant, environmental forced migrant’, and environmental motivated migrant. The term ‘climate induced displaced people’ (CIDP) has been synonymies in different concepts, such as forced environmental migrant, environmentally motivated migrant, climate refugee, climate change refugee, climate induced migration, climigrant, climate change displaced people, environmentally displaced person, disaster refugee, environmental displace, eco-refugee, ecologically displaced person and environmental refugee-to-be. [Myers, Slack, and Singelmann \(2008\)](#) treats them as environmental refugees and defines as: the people who can no longer gain a secure livelihood in their homelands because of drought, soil erosion, desertification, deforestation and other environmental problems, together with associated problems of population pressures and profound poverty. [Islam and Shamsud-doha \(2017\)](#) found some causes of displacement when the people faced natural disasters that include unemployment, lack of housing, poor social facilities, social insecurity, risk of further disasters, lack of government initiatives post-disaster, shortages of livelihood support and lack of public services in the affected areas.

Migration is a complex and multidimensional process that may occur for different reasons ([Islam, 2018](#)). A number of studies mention migration as a coping strategy that may reduce environmental and socio-economic vulnerabilities ([Bhatt, Mall, & Banerjee, 2015](#); [Fernando, Warner, & Birkmann, 2010](#)). [McLeman and Smit \(2006\)](#), and [Drabo and Mbaye \(2015\)](#) described migration as a possible adaptive response to risks associated with climate change. [Naude \(2008\)](#) mentioned three climate change channels that can intensify migration, namely scarcity of water and land, natural hazards, and conflicts over natural resources. A number of other studies, for example, [Barnett and Adger \(2007\)](#), have argued that people migrant from one community to another because of climate change related tensions and conflicts. [McGregor \(1994\)](#) established the link between environmental change, migration and food insecurity.

Disaster Vulnerability

Vulnerability is defined as, ‘the diminished capacity of an individual or group to anticipate, cope with, resist and recover from the impact of a natural or man-made hazard’ ([Ahmed, Kelman, Fehr, & Saha, 2016](#)). Vulnerability is most often associated with poverty, but it can also arise when people are isolated, insecure and defenceless in the face of risk, shock or stress ([Islam, 2018](#); [Paul & Islam, 2015](#)). [Kelly and Adger \(2000\)](#) stated that vulnerability is the ability or inability of individuals or social groups to respond or adapt to, cope with, or recover from, any external stress placed on livelihoods and well-being. In other way, vulnerability refers to the limitation of a community to a hazard and the prevailing condition, including physical, socioeconomic and political factors that adversely affect its ability to respond to hazards or disastrous events ([Chen, Lam, Sumalee, Li, & Li, 2012](#)). According to [Cannon \(1994\)](#), vulnerability is a characteristic of

individuals and groups of people who inhabit a given natural, social and economic space. It is a complex characteristic produced by a combination of factors derived especially (but not entirely) from class, gender and ethnicity. Vulnerability relates to the natural and geophysical events and later on social forces that render certain groups and societies more exposed to the destructive effects (Islam, Khan, Reza, & Rahman, 2020).

The literature shows different indicators to measure disaster vulnerability. A number of authors such as Cutter et al. (2003), Hahn et al. (2009) and Shah et al. (2013), used economic, social and natural factor indicators to measure vulnerability. A number of authors such as Turton (2000), Knutsson and Ostwald (2006) and Amos, Akpan, and Ogunjobi (2015) used the Sustainable Livelihood Approach (SLA) to assess livelihood vulnerability compared with five livelihood assets, namely, natural, social, financial, physical and human capital. Hesselberg and Yaro (2006) used ecological, socio-cultural and economic political perspectives to measure vulnerability. Dillely and Boudreau (2001) argued that the extent to which people suffer from calamities of any kind depends on how their livelihood is exposed to hazards or shocks, and on their capacity to withstand these shocks.

Disaster Resilient and Resilient Livelihoods

The concept of resilience is used by multiple disciplines; it gradually extends from technical vocabulary to multiple meanings. In general, resilience is the capacity to recover quickly from difficulties (Islam & Khan, 2018). Sometimes, it is used as synonymous to ‘adaptation’ where adaptation to climate change is the

actions to reduce the vulnerability of a system (e.g. a city), a population group (e.g. a vulnerable population in a city) or an individual or household to the adverse impact of anticipated climate change. (Garschagen, 2013)

There are some other words that are used to understand resilience such as a system’s ability to bounce back to a reference state after a disturbance (Pimm, 1984), capacity to withstand or absorb recurrent external shocks and stresses and to maintain certain structures and functions despite disturbance (Adger, Arnell, & Tompkins, 2005; Folke, 2006), capacity to reorganize while undergoing change so as to retain essentially the same function, structure, identity and feedback (Walker, Holling, Carpenter, & Kinzig, 2004), and societal response to and capability to recover from hazards (Wu et al., 2016). Resilience is mostly cited as community resilience that means a collection of a series of capabilities where community capacity improvement and disaster adaptation, and can be used as a community development goal. Resilience has endured multiple revisions from engineering resilience to ecological resilience to evolutionary resilience in the development process (Ahmed et al., 2016)

Ashraf and Shaha (2016) argued that most definitions highlight a capacity for successful adaptation in the face of disturbance, stress or adversity. However, resilience is better conceptualized as an ability or process rather than as an outcome (Pfefferbaum, Reissman, Pfefferbaum, Klomp, & Gurwitsch, 2008).

Disaster resilience has been regarded as a critical element in attaining successful recovery and reconstruction following a large-scale disaster (Mayunga, 2007). Here, resilience is related with economic development, social capital formation, information access and community competence (Sherrieb, Norris, & Galea, 2010). Ahmed (2011) proposed that amongst other things such as shelter and infrastructure services, recovery of livelihood, especially for those who have lost assets and resources for make a living, should be addressed first as it aids people to become self-sufficient, rather than requiring to depend on continued relief aid.

Livelihood is often understood as a way of making a living (Sina, Chang-Richards, Wilkinson, & Potangaroa, 2019). It is a social component that increases the ability of a household to meet its basic needs such as adequate food, access to health care and housing, and minimum levels of income, basic education, and neighbourhood security and protection. Livelihood resilience is concerned with the capacity of all people coming from different generations to maintain and improve their facilities, well-being and situations in the face of environmental, economic, social and political crises (Tanner et al., 2015). This resilience is established through human empowerment by human agency, individual and collective actions, human rights, etc. through dynamic social processes. Most of the literature used livelihood resilience that resilience livelihood but meaning is the same. This highlights the role of the human agency and the individual and collective capacity to respond to stressors. The approach to livelihood resilience emphasizes people's ability and their differences in understanding risk and preventative measures. It seeks to move forward through minimizing human rights, justice, politics and power to minimize injuries and loss (Nasrnia & Ashktorab, 2021). Pomeroy et al. (2006) proposed the fundamental principles of livelihood resilience such as targeted, community participatory, based on needs assessment, and aimed at capacity building. There are several indicators to measure livelihood resilience but the sustainable livelihood framework is vastly used where the means for livelihoods is considered based on people's access to capital assets that was originally developed by the UK Department of International Development in 1999. In this framework, a people-centred approach is emphasized based on the five components of a sustainable livelihood approach, such as human, social, natural, physical and financial capital, which are interdependent, and each can complement the other assets (Sina et al., 2019). Through a survey of five post-2004 Indian Ocean tsunami relocated villages in Banda Aceh and Aceh Besar, Indonesia, Sina et al. (2019) developed a framework for measuring livelihood resilience in cases of post-disaster displacement.

Disaster, Displacement and Resilient Livelihood in South Asia

South Asia is the southern region of Asia. The region consists of the countries of Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka. Topographically, it is dominated by the Indian Plate and defined largely by the Indian Ocean on the south, and the Himalayas, Karakoram and Pamir on the north. On land (clockwise), South Asia is bounded by Western Asia, Central Asia, East Asia and Southeast Asia. The region covers about 5.2 million km²,

which is about 11.71% of the Asian continent or 3.5% of the world's land surface area (Kiddle Encyclopedia, 2022). The population of South Asia is about 1.891 billion or about one-fourth (24%) of the world's population, nearly 40% of Asia's population, known as most populous and densely populated region in the world where diverse religion such as Muslim, Hindu, Christian, Buddhists live. Table 1.1 presents some basic data about the South Asian countries. India is the largest country in South Asia that occupies nearly double land surface area and three times more population than the rest of the countries. Nearly 50% of the people in Afghanistan, 22% in Pakistan and 21% in Bangladesh are still living below the National Poverty Line in 2020. Significant level of variations is also found in Nominal Gross Domestic Product (GDP), Annual Growth Rate of GDP and Per Capita Gross National Income (GNI) among the South Asian countries.

The countries across south Asian countries have inequality, poverty and unemployment problems that are the main hindrances for slower development. Low GDP growth, low literacy or education level, high infant mortality rate, low agricultural productivity, low life expectancy, high population growth rate, health access, high mass poverty and unemployment, high gender gap and low labour force participation are very common in South Asian countries. According to the latest data of the World Bank, the richest 1% of the population globally captures 20% of the global income and 54% of global wealth. It provides shelter to 22% of the global population with a share of 1.3% of total income (Yadav & Iqbal, 2021).

South Asia is faced with a range of natural hazards, including floods, droughts, cyclones, earthquakes, landslides and tsunamis (Table 1.2). The World Bank estimates that the climate-sensitive and carbon-intensive scenario will increase over time in this region. Rapid and unplanned urbanization, environmental degradation, climate change and socioeconomic conditions are increasing citizens' exposure to and risk from natural hazards and resulting in more frequent, intense and costly disasters (Bhatt, Patel, & Gleason, 2019). Despite some initiatives and the commitment of the Goal 13 of the Sustainable Development Goals (SDGs) for disaster risk reduction, natural hazard governance in South Asian countries remains weak. According to the ADB (2022), the strengthen resilience and adaptive capacity to climate hazards and natural disaster in south Asia is still fragile where a large number of people are affected by disaster, number of death in Bhutan, India, Nepal and Pakistan is high and the implementation of National Risk Reduction Strategies found low in Bhutan, Maldives, Pakistan and Sri Lanka (Table 1.3).

Chapter Outlines

This book discusses nine case studies from six South Asian countries that sketch the features of disasters, displacement and resilient livelihoods. The earnestness of this book is that this captures diverse context of the South Asian resilience livelihoods framework that is hardly addressed in the academic literature. The book will be great source of knowledge to the concern students, researchers, academics and general readers as well as policy makers and disaster practitioners.

Table 1.1. Basic Data of South Asian Countries.

Indicators	Afghanistan	Bangladesh	Bhutan	India	Maldives	Nepal	Pakistan	Sri Lanka
Land Surface Area ('000 km ²) in 2018	652.86	147.57	38.39	3,287.26	0.30	147.18	796.10	65.61
Total Population (Million) in 2021	31.40	171.68	0.76	1,369.00	0.57	30.30	222.59	22.16
Proportion of Population below \$1.90 Purchasing Power Parity (PPP) a Day (% in 2019)	...	14.3	1.5	...	0.0	...	3.6	0.9
Proportion of Population Living below the National Poverty Line (% in 2020)	49.4	20.5	8.2	...	8.4	...	21.9	4.1
Nominal Gross Domestic Product (GDP) (\$billion in 2021)	20.1	416.2	2.6	3,195.2	377.7	35.4	341.4	84.5
Annual Growth Rate of GDP (% in 2021)	-2.4	6.9	3.5	8.9	3.1	2.3	5.6	3.7
Per Capita Gross National Income (GNI), Atlas Method (\$) in 2020)	611	2,030	2,840	1,920	10,570	1,190	1,270	3,720

Source: Developed by author based on Asian Development Bank (ADB) (2021).

Table 1.2. Common Disasters in South Asia.

Country	Types of Common Disasters
Afghanistan	Floods, earthquakes, snow avalanches, landslides and droughts
Bangladesh	Floods, cyclones, storm surge, river bank erosion, earthquake, drought, salinity intrusion, fire and tsunami
Bhutan	Earthquakes, landslides, flash flood and forest/structural fires
India	Earthquakes, floods, cyclones, drought, tsunami, landslide and avalanches
Maldives	Storm, flooding, earthquake, tsunami and fresh water shortage
Nepal	Drought, earthquakes, epidemics, extreme temperatures, floods, landslides, fires (both household and forest), wind damage and abnormally low temperatures
Pakistan	Earthquakes, floods, drought, cyclone, flash flood, landslide, avalanche and epidemics
Sri Lanka	Floods, landslides, cyclones, drought, lightning, coastal erosion and Tsunami

Source: Prepared by author based on [ADRC \(2022\)](#).

The book makes a close and important link with disaster, displacement and resilience livelihood which is more or less unexplored and undocumented. The book will be important source of knowledge to the policy makers, disaster experts and development practitioners. The readers have an opportunity to look some common features of resilience livelihood with a diverse country context, geographical location and socioeconomic paradoxes.

In Chapter 2, ‘Research Trends on Natural Disasters in the Context of India: A Bibliometric Analysis’, Babul Hossain, Md Nazirul Islam Sarker, Guoqing Shi and Md. Salman Sohel assessed the research trends on natural disasters and its contribution to the various fields of policy decisions in India by conducting a bibliometric analysis for the period between 2008 and 2022. The authors showed that the current baseline information on natural disaster-related literature in the context of India showed that this field is growing rapidly but with inadequate research collaboration and low productivity as needed. Research collaboration in this field need to be strengthened to improve the solid response to natural disasters in any place in India. There is a need to expand the research focus in this field to include associated indicators. In Chapter 3, ‘Household Vulnerability and Resilience to Natural Disasters in Pakistan: A Systematic Literature Review,’ Babul Hossain, Md Nazirul Islam Sarker, Guoqing Shi and Md. Salman Sohel explored the household vulnerability and natural disasters in Pakistan. They explored the status of household vulnerability and resilience practices of hazard-prone communities in Pakistan based one existing literature. They mentioned that Pakistan is one of the most climate change and natural disaster-affected countries in the globe, where the lives and livelihood of people are repeatedly affected due to these natural disasters. Over the past few decades, the country has