Manual for Scaling Up of Community-Driven Retrofitting of Unsafe Schools





Government of Nepal Ministry of Education, Science & Technology Central Level Project Implementation Unit

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FOREWORD

The devastating earthquake of 2015 highlighted the urgent need of safeguarding Nepal's schools, ensuring the safety of our students and teachers. In response, the Government of Nepal, the Ministry of Education, Science & Technology, and the Central Level Project Implementation Unit initiated the "Disaster Resilient Schools Project" to reconstruct and retrofit affected school buildings. This comprehensive manual is an outcome of the community-driven school retrofitting initiative and serves as a roadmap for retrofitting unsafe schools through community engagement.

To empower the community, the manual emphasizes the significance of community-driven retrofitting. It recognizes the invaluable knowledge and expertise that local communities possess regarding their schools. By involving community members in the retrofitting process, we foster a sense of ownership and ensure that the schools are resilient and sustainable.

As we embark on the nationwide scaling-up of the Community-Driven Retrofitting of Unsafe Schools project, this manual serves as an indispensable tool for all stakeholders. It equips engineers, technicians, community leaders, and school management committees with the necessary knowledge and skills to transform our schools into safe and earthquake-proof learning environments.

Through collaborative efforts, we can enhance the seismic resilience of our schools providing a safe and secure place for students and teachers to learn and grow.

Laxmi Prasad Bhattrai Project Director

PREFACE

One of the most hazard-prone countries in the world, Nepal faces weather-related hazards such as landslides, floods, and droughts. The frequency and intensity of such hazards may increase because of climate change. Nepal also experiences earthquakes, which could trigger landslides, floods, and fires. Although massive earthquakes happen infrequently, they cause significant casualties, physical damage, and losses to the economy. Damage and losses from the 2015 earthquake in Gorkha were assessed at \$7 billion, with 8,790 casualties, 22,300 injuries, 7,800 schools damaged, and 8 million people (almost 29% of the population) affected. More than 72% of the buildings of the country's 35,000 schools are unsafe and require seismic retrofitting. A 2016 structural integrity and damage assessment estimated that 2,234 schools are heavily damaged and not in use in 14 districts that were severely damaged by the 2015 earthquake.

The National Reconstruction Authority (NRA) is the executing agency, which has assigned project implementation responsibility to its Central Level Project Implementation Unit (CLPIU Education). Project activities related to retrofitting of unsafe schools, reducing disaster risks for reconstructed and retrofitted schools, and strengthening of DRM institutional capacity are being undertaken with involvement of students, teachers, community representatives, Technical supporting DRM consultant and local government units.

Data are accumulated and refined on the basis of lessons learned from the retrofitting of the three pilot schools from all the three phases of the GESI responsive On the Job retrofit training. This manual is prepared following the pre-planned framework for the one-day orientation for scaling up of community driven retrofitting of unsafe schools. Community-driven retrofitting not only contributes to the retrofitting of unsafe schools or community buildings but also generates additional desirable outcomes in environment and economy.

Suresh Kumar Wagle Deputy Project Director

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Peng. Dr. Purushotam Dangol Team Leader

ACRONYMS

ADB	Asian Development Bank
CLPIU	Central Level Project Implementation Unit
CRFP	Carbon Fiber Reinforced Polymer
DLPIU	District Level Project Implementation Unit
DRM	Disaster Risk Management
EDCU	Education Development and Coordination Unit
GESI	Gender Equality and Social Inclusion
IS	Indian Standard
LG	Local Government
NBC	National Building Code
NDT	Non Destructive test
NRA	National Reconstruction Authority
PPE	Personal Protective Equipment
RC	Reinforced Concrete

ToR Terms of Reference

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