

TOOLS FOR THE ASSESSMENT OF SCHOOL AND HOSPITAL SAFETY FOR MULTI-HAZARDS IN SOUTH ASIA

HOSPITAL SAFETY TOOLKIT BOOK 1: NEW DESIGN MULTI-HAZARD SAFETY COMPLIANCE





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HOSPITAL SAFETY 
TOOLKIT BOOK 1: NEW DESIGN
MULTI-HAZARD SAFETY COMPLIANCE

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FOREWORD

South Asia is a hotspot of disasters. The tectonic, geomorphological and hydro meteorological set up of the region along with socio- economic conditions make it extremely vulnerable to various natural disasters. The South Asian countries located in the seismically active northern fringes like Afghanistan, Bhutan, India, Nepal and Pakistan have been witness to several devastating earthquakes in the past. Similarly, the countries with exposed coastline like Bangladesh, India, Maldives and Sri Lanka have borne the fury of cyclones, tsunamis and coastal erosion. In addition to these, floods, landslides, droughts have also caused devastation in the countries of South Asia.

It has been observed that in case of natural disasters the important community and lifeline structures such as schools and hospitals receive irrecoverable damages and it takes a long time to restore them to function for the communities. The safety of these structures becomes even more important in light of the fact that, when disasters strike, they also serve as vital centers for community shelter extended to the affected. The safety and resilience of lifeline structures and a strong need to adopt a toolkit which addresses the critical aspects of safety of schools and hospitals in vulnerable areas thus has been identified as a priority. South Asian Association for Regional Cooperation (SAARC) Disaster Management Centre (SDMC), New Delhi India identified the vitality of the issue and in follow up to the SAARC Road Map for Earthquake Risk Mitigation; a toolkit for Rapid Visual Assessment (RVA) of schools and hospitals has been developed in 2011.

Extending this initiative further, UN-Habitat, in partnership with UNISDR Asia Pacific Secretariat and the SDMC has taken up the mission of developing a standardized Tool Kit for the assessment of safety of school and hospital structures to multiple hazards in the region. This Tool Kit adopts the basic framework from the SDMC template on Risk and Vulnerability Analysis of Schools and Hospitals, and extends to the multiple hazards, the region is prone to such as earthquake, flood, cyclone, fire etc.. It addresses the safety of new lifeline structures as well as retrofitting of existing structures to make them resilient and safe for the communities during disasters. The Tool Kit targets two groups placed at the extreme ends of disaster management spectrum: the Top Level Management and the End Users. The

development of the Tool Kit has undergone several rigorous stages of review and feedback from experts from the region and field observations. Finally at a stimulating Expert Group Meeting (EGM) held in Kathmandu a distinguished panel of experts assembled and deliberated on the finer technical aspects. Incorporation of the recommendations of the EGM has further enriched the contents of the Tool Kit.

The Tool Kit is placed in the hands of the intended users at a very crucial juncture of disaster risk reduction initiatives evolving in the SAARC region, through various consultative, research and policy planning endeavours. It is expected that the Tool Kit will be useful to a myriad cross section of players engaged in disaster risk reduction in the SAARC region.



A handwritten signature in black ink, appearing to read 'Satendra', written over a horizontal line.

Satendra
Director
SAARC Disaster Management Centre

FOREWORD

It gives us great pleasure to introduce this toolkit entitled **Tools for the Assessment of School and Hospital Safety for Multi-Hazards in South Asia**.

South Asia is one of the most disaster prone regions in the world. A combination of multiple layers of geo-physical and climatic hazards, as well as a complex range of physical, social and economic vulnerabilities contribute to this. In 40 years, from 1967 – 2006, some 784 reported disasters took 800,000 lives and affected over two billion people. Economic losses amounted to an estimated \$80 billion. This region also has an exceptionally high annual urban growth rate, with the accompanying challenges of increased urban risk and vulnerability.

Six out of the eight countries of South Asia - Afghanistan, Pakistan, India, Nepal, Bhutan and Bangladesh, are located in the highly seismically active Himalayan-Hindu Kush belt. Sri Lanka, Maldives and large parts of the coastal areas of Bangladesh, India and Pakistan are vulnerable to tsunamis, cyclones and flooding. Substantial damages were caused to education and health facilities by a series of disasters in the recent years such as the 2004 Indian Ocean Tsunami, the 2005 Kashmir earthquake, Cyclone Sidr in 2007, and the 2010 and 2011 floods in Pakistan. The resultant loss of life of students, teachers and health workers, and the collapse of school and hospital buildings clearly indicate the need to ensure the safety of these critically important facilities.

This toolkit, which comprises four sets of assessment tools for both existing and new schools as well as hospitals, is a result of cooperation amongst the South Asian Association for Regional Cooperation (SAARC), the United Nations Human Settlements Programme (UN-Habitat) and the United Nations Office for Disaster Risk Reduction (UNISDR).

The Toolkit serves Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka, and complements the recent work of the SAARC Disaster Management Centre and its publication '*Rapid Structural and Non-Structural Assessment of School and Hospital Buildings in SAARC Countries*'. The aim is to offer user-friendly tools for the multi-hazard context of South Asia, targeting policy makers, experts, and end-users responsible for local level planning and implementation.

The toolkit explains the complex process of retrofitting existing facilities as well as ensuring safe construction of new infrastructure in a practical manner. It facilitates informed decision-making and actions to achieve school and hospital safety. Importantly, the tools have been reviewed by a group of experts including policymakers, professionals and users, and have undergone field testing in several locations in India, Nepal and Pakistan.


This new approach will provide concrete indices in support of the recommendations of the 2011 Chair's summary of the Global Platform for Disaster Risk Reduction, the global advocacy campaigns: *One Million Safe Schools and Hospitals, Making Cities Resilient - My City is Getting Ready and, the World Urban Campaign*. We believe this is an important step towards achieving risk reduction targets and building the resilience of nations and communities in the South Asian sub-continent. The toolkit demonstrates that making critical infrastructure safe from disasters is achievable.




Joan Clos,
UN Under-Secretary-General and
Executive Director, UN-Habitat - United
Nations Human Settlements Programme





Margareta Wahlström,
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of the Secretary-General
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SCHOOL SAFETY TOOLKIT BOOK 1: NEW DESIGN Multi-Hazard Safety Compliance		
CHAPTER 1		CONSULTANTS WILL FILLIN TOOLKIT I & PRESENT IT TO TLM, EDUCATION
1.1 Background		
1.2 The Toolkits		
1.3 Who does what and how		
1.4 Types Of Hazards		
1.5 Desktop Research		
1.6 Process		
CHAPTER 2		
2.1 How to Use the Toolkit I		
Annexure I: Seismic Safety Evaluation Annexure II: Wind Safety Evaluation Annexure III: Flood Safety Evaluation Annexure IV: Fire Safety Evaluation		

HOSPITAL SAFETY TOOLKIT BOOK 1: NEW DESIGN Multi-Hazard Safety Compliance		
Chapter 1	3	CONSULTANTS WILL FILL IN TOOLKIT I & PRESENT IT To Top Level Management (TLM), HEALTH
1.1 Background	3	
1.2 The Toolkits	3	
1.3 Who does what and how	4	
1.4 Types of Hazards	4	
1.5 Desktop Research	4	
1.6 Process	4	
Chapter 2	5	
2.1 How to Use the Toolkit I	5	
Annexure I: Seismic Safety Evaluation	11	
Annexure II: Wind Safety Evaluation	24	
Annexure III: Flood Safety Evaluation	32	
Annexure IV: Fire Safety Evaluation	38	

THIS IS BOOK 1

SCHOOL SAFETY TOOLKIT BOOK 2: RETRO MAINTENANCE Multi-Hazard Safety Compliance		
CHAPTER 1		SURVEY AGENCY/NGO WILL FILLIN TOOLKIT II & PRESENT IT TO TLM, EDUCATION
1.1 Background		
1.2 The Toolkits		
1.3 Who does What and How		
1.4 Types Of Hazards		
1.5 Desktop Research		
1.6 Process		

HOSPITAL SAFETY TOOLKIT BOOK 2: RETRO MAINTENANCE Multi-Hazard Safety Compliance		
Chapter 1		SURVEY AGENCY/NGO WILL FILLIN TOOLKIT II & PRESENT IT TO TLM, HEALTH
1.1 Background		
1.2 The Toolkits		
1.3 Who does what and how		
1.4 Types of Hazards		
1.5 Desktop research		
1.6 Process		

CONTENTS

预览已结束，完整报告链接和二维码如下：

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