

**Community-Based  
Disaster Risk Reduction**

# **MAKING SCHOOLS SAFER**



**Course Material**

The Training  
and Learning  
Circle



**Community-Based  
Disaster Risk Reduction**

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**November 2009**

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and Learning  
Circle

## Introduction

The Training and Learning Circle (TLC) is a network of training institutions and universities that has been organised to re-examine, strengthen, and facilitate the crucial interface between training and education for community based disaster risk reduction (CBDRR). The TLC aims to strengthen the capacity of training institutions and universities by reviewing existing and developing new learner-centred learning materials and methodologies. The TLC enhances learning through South-South knowledge and solution exchanges, with a focus on addressing systemic gaps and topics in training and education that would benefit from a sector-wide approach. All India Disaster Mitigation Institute (AIDMI) is promoting and facilitating the formation of TLC in India, and Asia, together with the ProVention Consortium, the Asian Disaster Preparedness Centre (ADPC), the Centre for Disaster Preparedness (CDP) in the Philippines, and the UNDP's Special Unit for South-South Cooperation.

Title: Making Schools Safer

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# Table of Contents

## Why Create a Knowledge Product on Making Schools Safer?

### Foreword

### Overview of the Making Schools Safer Series

### Abbreviations

## **Module 1: Introduction to School Safety in India** **1**

1.1 Disaster Definitions	4
1.2 Disaster Risk: The Relationship between Hazard, Vulnerability, and Capacity	4
1.3 Hazards and their Classifications	5
1.4 Disaster Effects on Schools	7
1.5 Schools Role in the Community	8
1.6 Hazards Affecting Schools in India	9
1.6.1 Earthquakes	10
1.6.2 Cyclone/Hurricane	13
1.6.3 Tsunami	14
1.6.4 Accidents and Fire	15
1.6.5 Floods	17
1.6.6 Landslide and Mudflows	18
1.6.7 Avalanches	19
1.6.8 Technological Accidents	19
1.6.9 Riots and Conflicts	20
1.6.10 Drought	20
References	21

Annex 1: Pin-up Hazard Information for Schools	22
--	----

### Facilitator's Note

1. Suggestions for Facilitators prior to Training	29
2. Facilitator Requirements during Training	29
3. Suggested Methods and Activities	29
4. Presentation Guidelines	32

## **Module 2: Conducting a School Safety Audit** **41**

2.1 School Safety Context in India	44
2.2 The School Safety Audit	45
2.2.1 Introducing the School Safety Audit	45
2.2.2 Coverage	46

2.2.3	The School Safety Audit Process	46
2.2.4	Data Collection and Analysis	47
2.3	Some Key Findings from a School Safety Audit in India	49
2.4	Opportunities for Schools to Enhance Safety	51
2.5	Sharing Audit Results with Other Local Schools	52
	References	52
	Annex 1: Sample School Safety Audit Checklist	53
<b>Facilitator's Note</b>		
1.	Suggestions for Facilitators prior to Training	58
2.	Facilitator Requirements during Training	58
3.	Suggested Methods and Activities	58
4.	Presentation Guidelines	62
<b>Module 3: Case Examples of School Safety Initiatives in India</b>		<b>67</b>
3.1	Case Study 1: SEEDS - Gujarat School Safety Initiative	70
3.1.1	The Initiative	70
3.1.2	Impacts and Results	71
3.1.3	The Good Practice	71
3.1.4	Approach	72
3.1.5	Lessons Learned	73
3.1.6	Potential for Replication	73
3.2	Case Study 2: AIDMI - Child's Right to Safer Schools Campaign	73
3.2.1	Introduction and Background	73
3.2.2	Objective, Duration and Coverage	74
3.2.3	Overview of Activities	74
3.2.4	Outputs and Outcomes	75
3.2.5	Recommendations for the Next Phase	76
3.3	Case Study 3: Government of India - School Safety Programme	77
3.4	Case Study 4: Urban Earthquake Vulnerability Reduction Project- Disaster Management Activities in Schools	78
3.4.1	Background	78
3.4.2	Activities	79
3.4.3	Expected Outcomes	80
	References	81
	Annex 1: Insurance Story	82
	Annex 2: Urban Earthquake Vulnerability Reduction Programme	83

## **Facilitator's Note**

- |   |    |
|---|----|
| 1. Suggestions for Facilitators prior to Training | 86 |
| 2. Facilitator Requirements during Training       | 86 |
| 3. Suggested Methods and Activities               | 86 |
| 4. Presentation Guidelines                        | 89 |

## **Module 4: Guidelines for Integrating Disaster Education 97**

- |  |     |
|--|-----|
| 4.1 Why Teach DRR in Schools?                              | 100 |
| 4.2 Scientific Knowledge                                   | 100 |
| 4.3 Strategies for Integration                             | 101 |
| 4.4 Girls in School  | 102 |
| 4.4.1 Creating Effective Learning Environments for Girls   | 102 |
| 4.4.2 Empowering Girls and Women                           | 102 |
| 4.5 Targets for Curricula                                  | 103 |
| 4.6 Experimental Learning - The Child-to-Child Approach    | 104 |
| 4.7 Connecting at Play                                     | 105 |
| 4.8 Examples for Replication                               | 105 |
| 4.8.1 "Go" Bags  | 105 |
| 4.8.2 Riskland   | 105 |
| 4.8.3 Let's Learn to Prevent Disasters                     | 106 |
| 4.8.4 Masters of Disaster                                  | 107 |
| References   | 107 |
| Annex 1: Article on Women, Education, and Disaster         | 110 |
| Annex 2: "Go Bag" Preparedness Activity                    | 111 |
| Annex 3: Household Disaster Plan Example                   | 113 |
| Annex 4: Riskland Board Game                               | 125 |
| Annex 5: School Disaster Reduction and Readiness Checklist | 127 |

## **Facilitator's Note**

- |   |     |
|---|-----|
| 1. Suggestions for Facilitators prior to Training | 130 |
| 2. Facilitator Requirements during Training       | 130 |
| 3. Suggested Methods and Activities               | 130 |
| 4. Presentation Guidelines                        | 134 |

- |   |     |
|---|-----|
| List of Contributors in Curriculum Review and Pilot Testing | 140 |
|---|-----|

## Schools Practice What to Do When the Earth Moves Under Your Feet Case Study - A Community-wide Earthquake Drill in California

No matter how well we reduce the risks associated with natural hazards, we also need skills to take care of ourselves and help each other out when disaster strikes. Immediately after a major earthquake damages buildings or a cyclone causes flooding, it can be days until food, water, and shelter from outside the area reaches those affected. People are often on their own for several days. The speed of later recovery depends on the ability that survivors have to organise themselves and to help each other.



Drills and simulations are essential for training and practice. Handbooks, web-sites, manuals and specially-trained teams exist around the world. But just reading about these things and leaving them to others isn't enough. Drills often reach only a small population, perhaps one school or one building at a time. Until now. A new method is gaining popularity for mass public education for disaster preparation, while keeping it local. Just as Iran has pioneered national school earthquake drills, so too have cities and Japan and a whole region in California pioneered in *community-wide earthquake drills*.

At 10am on 13 November 2008, Southern California rocked – to a pretend earthquake designed to get people to act for real. The Great Southern California ShakeOut was the largest earthquake drill in U.S. history.

5.5 million people participated, including almost 4 million students in kindergarten through grade 12. To make it seem as real as possible, a scientifically-developed practice scenario suggested that a magnitude 7.8 earthquake would rock the area for two minutes. Participants in the ShakeOut rang bells, shouted "Earthquake" and began by taking the 'earthquake position' Drop, Cover and Hold-on. Most participating schools followed with a full building evacuation and student accounting. Many enacted a full simulation, using the common incident command system to organise themselves. Schools' disaster management plans were put into practice to see where the weak spots lay. Meanwhile, international researchers from four continents looked on, seeking lessons to share with colleagues around the world.

The ShakeOut was organised by Earthquake Country Alliance (ECA). The international school safety observation team was assembled by Risk RED (Risk Reduction Education for Disasters) in cooperation with Western Washington University's Institute for Global and Community Resilience and the international Coalition for Global School Safety and Disaster Prevention Education. Support came from ECA and ProVention Consortium.

The team provided a *School Disaster Resilience and Readiness Checklist* along with *School Drill Model and Templates* including *Self-evaluation forms* based on good practices by Los Angeles Unified School Districts and other school districts around California. A *School Disaster Preparedness Survey* and *School Post-Drill Evaluation Survey* were implemented to aggregate self-evaluation observations by participating schools. These resources and the full report on *School Disaster Readiness: Lessons from the first Great Southern California ShakeOut* can be found at: <http://www.shakeout.org/schools> .

With 75 years of public policy leadership to support school safety, new school construction standards in California are higher than those for regular buildings. Non-structural mitigation measures, such as fastening heavy furniture and appliances to the walls and floors, began twenty years ago and are now mandatory. While this progress is reassuring and laudable, four areas of concern remain:

- Private schools are not required to meet these construction standards.
- 7,537 school buildings in California constructed before 1978 are of questionable safety.
- Portable classrooms, which may account for 1/3 of all classrooms in California, may be hazardous if not properly supported and fastened.
- Non-structural mitigation measures require consistent application to be effective.

The surveys, observations, and post-drill debriefings showed the ShakeOut to be a major success. The international research team reported on the impressive seriousness and conscientiousness with which school leadership, staff, and students approached the drill. They also highlighted the tremendous learning that comes from long-term engagement in drills and the discoveries and innovative solutions that emerge from reflection and action after each drill.

It was encouraging to see the wide extent of knowledge and skills for safety – yet everyone recognised that there's still a long way to go. Almost all school staff members were aware that they are mandated disaster service workers and almost all have disaster committees and disaster plans. Yet less than one-third involve parents and less than one-fifth involve students and other community members. Schools notify parents about disaster drills, but most don't encourage staff or students to prepare at home, forfeiting this powerful learning opportunity and failing to transfer knowledge from children to their parents.

Similarly, schools have fire extinguishers, smoke detectors, clearly marked evacuation routes, and first aid supplies, but many lack emergency water and food supplies, emergency lighting and shelter and supplies for children with special needs. Many school staff have first aid training, know how to turn off utilities, can use a fire extinguisher, and are familiar with student release procedures. Weaker areas are training in use of incident command systems, off-site evacuation plans, backing-up educational records, education continuity plans, transportation planning for students on school buses, and plans to safely reunite children with their parents.

The ShakeOut turned theory into practice, showing how local solutions to disasters can be scaled up to teach and learn from the mass public. The event was so successful that it is now to become an annual event in California. The next one is scheduled for October 15, 2009.

Get involved! Let us know if you are planning a community-wide disaster response drill in your area! [riskred@riskred.org](mailto:riskred@riskred.org). Let's make this the *Great Worldwide Shakeout* for 2015.

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