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School buildings and natural disasters

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D. J. Vickery

المركز القومي لبحوث الإسكان والبناء

Housing & Building National Research Center

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Preface

Unesco's activities in the field of disaster relief for school buildings have so far been concentrated on aid to Member States in dealing with the problems caused by earthquakes. As part of these activities reconnaissance missions are sent to countries that have suffered from earthquakes, to assess the damage to school buildings. Practical recommendations concerning the construction of schools that will be relatively safe during earthquakes have also been important. Plans for school buildings built with Unesco's technical advice are examined, prior to approval, to determine the vulnerability to earthquakes of schools built according to such plans.

Unesco has prepared several technical documents designed to acquaint Member States with the results of its activities. These documents have dealt with: the general problem of natural disasters in relation to school-building design in Asia; the influence of earthquakes on school buildings; and the construction norms necessary if schools are to be evacuated easily and quickly in an emergency.

This study covers a broader field; it was undertaken for the purpose of identifying those areas affected by cyclones and other natural disasters and classifying them

according to the particular nature of the disaster. It also attempts to analyse the main problems involved in designing and constructing school buildings resistant to natural disasters. Finally, documentation and other types of information available on the subject are listed and analysed.

It is hoped that this study will encourage and facilitate the writing of manuals for the guidance of school-building designers, as well as of those communities in which the practice has been for the community itself to design and build its own schools. Thus, the present publication should be of interest to architects, engineers, designers, government officials, those who work in school-building units in ministries of education and community leaders in disaster-prone areas.

The author, D. J. Vickery, has had extensive experience in the design of educational buildings. Formerly principal architect in the Unesco Regional Office for Education in Asia (Bangkok), he has published numerous books and articles on this subject. The opinions expressed are those of Mr Vickery and not necessarily those of Unesco.

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Contents

Introduction	9
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PART ONE	NATURAL DISASTERS AND THEIR EFFECTS ON SCHOOL BUILDINGS
The disaster	13
Disasters: the physical phenomena	19
Short case studies	29
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PART TWO	RISK RECOGNITION AND RESPONSE: A DIAGNOSIS
Risk recognition	37
Two models of action	44
Risk recognition and the school building	47
Control of school-building design and construction in areas at risk from natural disasters	53
Disaster-resistant schools: the process	57
Research and training	60
Published material relating to disaster-resistant building design	64
Diagnosis of the problems of providing disaster-resistant schools	68
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PART THREE	RISK REDUCTION: IDENTIFICATION OF PROGRAMME AREAS
Policy and planning	75
Architecture, structural engineering and disaster-resistant schools	78
Rural communities building disaster-resistant school buildings	82
Strengthening of existing schools	84

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