

Sécurité scolaire
School Safety and Security

P E B

OECD Programme on Educational Building (PEB)

KEEPING SCHOOLS SAFE IN EARTHQUAKES

Richard Yelland

**Head of Education Management and
Infrastructure Division**

World Conference on Disaster Reduction
Kobe, 20 January 2005

The problem

Sécurité scolaire
School Safety and Security

P E B

- "...schools built worldwide routinely collapse in earthquakes due to avoidable errors in design and construction...because existing technology is not applied and existing laws and regulations are not sufficiently enforced...Unless action is taken immediately to address this problem, much greater loss of life and property will occur"



1. Many countries within the OECD and elsewhere are seismically active and earthquakes can cause injury, loss of life, disruption, and economic damage related to schools.
2. There are hundreds of millions of children in compulsory education in countries of high seismic risk who are in danger.
3. If no action is taken, the problem will only get worse due to population growth and redistribution, and greater emphasis on "Education for All"



The Motivation

1. Children are the most valuable segment of any culture or society since the future rests in their hands.
2. Children, the ill, and the elderly are generally the most vulnerable segments of society.
3. Children generally have no choice when they are exposed to unacceptably high levels of risk in their school buildings.



The Opportunity

1. Society has an ethical responsibility to provide a safe learning environment for children.
2. Methods are available for assessing the seismic risk of school buildings and cost-effective approaches exist for reducing this risk within a reasonable time frame.
3. OECD has a unique opportunity to make a significant difference in the safety of school children throughout the world.



Ad hoc Experts' Group

- 33 of the world's leading authorities on seismic safety, policy, and related issues
- A breadth of perspective and experience from academia, business, international organizations, business, and non-governmental organizations
- A firm commitment to making a difference
- A highly focused charge
- Actionable recommendations that can bring about real change.



Ad hoc Group Recommendations

Implementation of *(internally) mandatory national school safety programmes*

- Eight *Guiding Principles* for mandatory national school seismic safety programmes
- Eight *Major Elements* of effective national school seismic safety programmes



Guiding Programme Principles

1. Establish clear and measurable objectives for school seismic safety that can be implemented and supported by the affected community.
2. Define the level of the earthquake hazard for the country.
3. Set forth expectations or objectives that define the desired ability of school buildings to resist earthquakes.
4. Address all schools regardless of ownership.

Guiding Programme Principles



5. Give initial priority to making new schools safe. A longer timeframe will be needed to correct seismic weaknesses of existing school buildings.
6. Establish programmes as long-term undertakings with a strong commitment to sustained effort rather than one-time action.
7. Adopt a multi-hazard approach to school safety, with earthquake mitigation strategies that complement and enhance disaster countermeasures for other hazards.
8. Employ advisory committees as needed to assure that policy and technical decisions are consistent, and to provide long-term independent support and evaluation for the seismic safety effort.

Major Programme Elements



1. Seismic safety policy
2. Accountability
3. Building codes and code enforcement
4. Training and qualification
5. Preparedness and planning
6. Community awareness and participation
7. Risk reduction for *new* facilities
8. Risk reduction for *existing* facilities

Sécurité scolaire
School Safety and Security

P E B

The Recommendation

Member countries take steps to establish and implement mandatory programmes of school seismic safety based on the guiding principles and taking into account the programme elements set forth in the Ad hoc Group recommendations

Sécurité scolaire
School Safety and Security

P E B

The Instruction

The PEB Governing Board is to review actions taken by the member countries in pursuance to this Recommendation and report thereon to the Council three years from the date of the Recommendation.

When the Recommendation is Approved by OECD Council



1. A design and implementation plan has been drawn up for a three-year international activity on earthquake safety in schools involving 10 countries.
2. The broad purpose of this activity will be to provide policy-makers with information and analysis to assist them in formulating and implementing policies leading to improved earthquake safety in schools.
3. Funding for the activity will be obtained through grants and voluntary contributions, and non-OECD countries will be encouraged to participate.



4. The principal objectives of the activity will be to:
- Assess national school seismic safety programmes using the guiding principles stated in the Recommendation
 - Review the extent to which countries have implemented the elements of an effective national school seismic safety programme
 - Analyse and present options for countries to improve their school seismic safety programmes.

Sécurité scolaire
School Safety and Security

P E B

Richard Yelland

Head of OECD Education Management and
Infrastructure Division

Richard.Yelland@oecd.org

www.oecd.org/edu/schoolsafety

www.oecd.org/edu/facilities