Central America School Retrofitting Program
(PRECA)

1. Introduction:

Natural hazards, like natural resources, are part of the offering of our natural systems; they can also be considered negative resources. In every sense, natural hazards are an element of the "environmental problems" currently capturing so much public attention. They alter natural ecosystems and intensify the impact of degradation in those ecosystems, reflecting the damage caused by mankind to the environment and can affect large groups of people. Examples of events include: hurricanes, earthquakes, tsunamis, landslides, floods, droughts, volcanic eruptions and fires.

Disasters are classified as events that overwhelm the response capabilities and disposable resources of the institutions or the people affected. A disaster can affect a population at the local, provincial or national level. Disasters of different magnitudes require different levels of attention and different mechanisms of response. One effective response is when a plan is adopted prior to an event, caution measures exist and there are pre-established mitigation strategies. It is important to point out that there is not a country, sector or institution, including schools, that is immune to disasters. For that reason a disaster risk management education plan should consider the vulnerability of the education infrastructure to natural hazards.

The consideration of such vulnerability should include the prevention of threats that hinder the continuity of services offered by the school. Only recently, damage to educational infrastructure caused by natural events has been recognized in terms of the loss of hours in the classroom which consequently diminishes the quality of education. Even small floods affect school operation by hindering school based activities. Furthermore, as centers used as shelters in case of emergency, it is essential that strategies be developed to ensure that the buildings are quickly restored to their normal function after a disaster occurs.

Most of the current inventory of educational infrastructure is vulnerable to natural hazards. The cause of this is due to the lack of knowledge about natural hazards existing in the area where the infrastructure was built; the use of inadequate school design, construction and modification practices; and the high level of deterioration that is found in some buildings due to lack of preventative maintenance. Many times, although the authorities are conscious of the risk level, budgetary restriction usually determine that available funds are used for repairs or additions to school infrastructure and do not consider the building's vulnerability to natural hazards. Most lending and technical cooperation institutions do not consider the vulnerability of school buildings to natural hazards as an objective of their projects. Nor is protection considered, during or after a disaster, for the student population, equipment or goods and services that are found within the school buildings.

2. Background – Organization of American States / Department of Sustainable Development (OAS/DSD) involvement in the education sector vulnerability reduction to natural hazards:

Since 1992 OAS/DSD has being working in the education sector vulnerability reduction to natural hazards at the hemispheric level. In that date two workshops where organized with support from the United States Agency for International Development (USAID). The first workshop was held in Caracas, Venezuela in 1992 for Latin America and the second in 1993 in Trinidad & Tobago for the Caribbean.

In 1995 OAS/DSD launched the Education Sector Vulnerability Reduction to Natural Hazards Program (ESVRNHP) in Central America and the Caribbean with support from the European Union Humanitarian Office (ECHO). ESVRNHP included the development of the sector vulnerability reduction policies, the education infrastructure planning process, schools mitigation projects, and emergency preparedness education programs. At the end of ESVRNHP all participant countries in Central America and the Caribbean had their Sector Strategic Plan to Reduce the Vulnerability to Natural Hazards. Also, in cooperation with the Centro de Coordinación para la Prevención de los Desastres Naturales en América Central (CEPREDENAC), and the Coordinación Educativa y Cultural Centroamericana (CECC), OAS/DSD supported the drafting of the Education Sector Strategic Plan to Reduce the Vulnerability to Natural Hazard in Central America.

In September 1997 the Hemispheric Action Plan for the Vulnerability Reduction of the Education Sector to Natural Hazards (EDUPLANHemisférico) was produce. That year OAS/DSD with support from the Universidad Central de Venezuela (UCV) organized the First Conference on EDUPLANHemisférico. In the Conference the EDUPLANHemisférico Thematic Areas were defined as Academic Aspects, Public Participation, and Physical Infrastructure. In 1999, at the final regional meeting of the United Nations International Decade for Natural Disaster Reduction held in San José, Costa Rica, EDUPLANHemisférico incorporated additional plans, including the voluntary formulation of Technical Secretariats. In 2000 the Fundación de Edificaciones y Dotaciones Educativas (FEDE) from Venezuela supported and hosted the EDUPLANHemisférico Second Conference.

After hurricane Mitch impacted Central America in 1998 affecting in particular the education sector, OAS/DSD with support from the Inter American Development Bank (IDB), the USAID - Office of Foreign Development (OFDA), and the Comité Permanente de Contingencias de Honduras (COPECO) hosted the Central America Workshop on School Reconstruction in Tegucigalpa, Honduras in January 2000.

In 2001 the Caribbean Disaster Emergency Response Agency (CDERA) hosted the Conference on Disaster Mitigation Policies in Schools in Grenada with OAS/DSD participation.

In 2002 the University of California in San Diego (UCSD) hosted the Conference on Seismic Security of School Building in the Pacific Coast of Latin America; Formulation of an International Strategy and OAS/DSD presented EDUPLANHemisférico.

In 2004, in the context of the Physical Infrastructure thematic area of EDUPLANHemisférico, OAS/DSD launched the Program on Disaster Reduction of University Campuses of the Americas (DRUCA) with the general objective of facilitating technical support and knowledge transfer on natural hazards vulnerability reduction management between Universities in the hemisphere. The Public Entity Risk Institute (PERI), a USA NGO, supported DRUCA. In September of that year, DRUCA and EDUPLANHemisférico approaches leaded the discussion on the education sector physical infrastructure in the Latin America and the Caribbean Meeting on Education for Risk and Disaster Reduction, promoted and organized by the United Nations International Strategy for Disaster Reduction (ISDR), the United Nations Children's Fund (UNICEF), the United Nations Educational, Scientific, and Cultural Organization (UNESCO), OAS/DSD, the Fundación Salvadoreña de Apoyo Integral (FUSAI) and the Ministerio de Medio Ambiente y Recursos Naturales – Servicio Nacional de Estudios Territoriales de El Salvador (MARN-SNET).

In April 2005 the Comité Andino para la Prevention y Atención de Disasters (CAPRADE) hosted in Lima, Peru the First Sub Regional Andean Meeting on Formal Education in Disaster Prevention and Response. EDUPLANHemisférico approach on physical infrastructure leaded the discussion on this thematic area.

All the above mentioned activities have contributed in the drafting of the Central America School Retrofitting Program (PRECA) enriching the physical infrastructure thematic area of EDUPLANHemisférico.

3. Central America School Retrofitting Program (PRECA) Phase I

In January 2006 with support from the German International Cooperation Agency (GTZ) OAS/DSD proposes to create a sustainable process through which communities may access support to retrofit vulnerable primary and secondary schools in Central America using grant proceeds to complement local organizational, labor and technical assistance contributions.

The initial activities for Phase I of PRECA focused on the documentation of institutional and technical experiences, and the review of national school vulnerability reduction plans to be implemented by the OAS/DSD to fulfil the following achievements:

1. Documentation of the institutional and technical experiences.
2. Contact with the different institutions responsible for school building development in the region and collection of technical material they have available.

3. Contact with regional and international agencies involved in education to discuss strategies for policy development for school buildings vulnerability reduction.
4. Meetings with technical personal in the Ministries of Education, Social Investment Funds, Public Works Ministries, NGO's, etc., to know of their activities on school vulnerability reduction.
5. Update the contact lists of key personnel involve in school infrastructure in the region and establish/strengthen direct contact with them.
6. Prepare a list of specific activities to be implemented in PRECA next phase.
7. Begin refreshing the institutional memories for reviewing and rewriting the education sector vulnerability reduction to natural hazards national plans. In most of the countries in the region the people involved in the development of such plans no longer work in the same institutions. These plans need to be updated and in some cases rewritten.

3.1. Implementation of PRECA Phase I:

These activities were carryout in all Central American Spanish speaking countries, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, and Panama. The main outputs from these activities are summarized as follows:

3.1.1. On the documentation of the institutional and technical experiences:

The lists of key personnel involve in school infrastructure in each country were produced including all national and international institutions responsible for education buildings development**.**

From the analysis of the institutional experience the following conclusions were obtained:

- Primary and secondary schools are built, maintained and reconstructed by a combination of institutions among which it is included government agencies, NGOs, private organizations and local community groups.
- Some of these institutions are working on school vulnerability reduction issues.
- Each one of these institutions use different strategies and technical documentation generated by a variety of sources; in some cases the technical documentation is approve by the department of infrastructure of the Ministries of Education (ME).
- There are limits to technical liability that each involved institution assumes when a school is damaged.
- ME and the Social Investment Funds (FIS) in each country account for most of the school reconstruction in the region. Most MEs are responsible for planning and standardizing the school buildings and the FIS are in charge of the construction.
- Some MEs with support from specialized agencies have identify the vulnerable areas at the national level and have produce a test for land

prequalification with risk and vulnerable areas that require mitigation work for school buildings.

- There are schools that were damaged or destroyed by recent events in the region that have been and continue to be repaired and reconstructed with some international assistance; in some cases the work is directly executed by the international agencies and in other cases it is executed through the national agencies.
- There is still a need to solidify and amplify the community-based efforts.
- Institutional, technical and financial supports are needed to support community based projects to retrofit existing vulnerable school structures.
- Some schools represent a retrofit challenge beyond the scope of community participation. Major structural problems will require the use of normal design and construction procedures.
- The issue of the vulnerability of schools built, owned and operated by the private sector (private and parochial schools) is rarely addressed, and almost no action has been taken by the public sector in any country to address the vulnerability of private sector schools.
- The technical discussions in most of the countries of the region have not reached the level of distinguishing between life-safety standards for construction and reconstruction codes (to prevent the collapse or damage to a school which may cause loss of life) and the building serviceability standards (the building does not only present a threat to life but will serve before, during and immediately after the natural hazard event for pre-defined purposes such as a community shelter).
- Likewise in discussing vulnerability issues of school design, construction and reconstruction, the technical discussion has not yet reached the level on a national basis of separating design flaws from problems of appropriate design but poor sitting and/or construction practices.
- There are deficiencies in technical areas such as multi-hazard school design, site planning, and construction inspection, particularly as these activities relate to the ME.
- One of the most difficult issues to resolve is school relocation and sitting of new schools. This usually involves the relocation of the entire community, causing stiff opposition to the movement, even if it is to a safer site.

3.1.2. On the review of the national school vulnerability reduction plans in each participating country:

Since 1995 with OAS/DSD support, among the measures taken to protect schools in case of natural disasters in Central America was the development of Education Sector Vulnerability Reduction to Natural Hazards Program in each participant country in PRECA. Those Programs encompassed the definition of the sector vulnerability reduction policies, the education infrastructure planning process, schools mitigation projects, and emergency preparedness education programs. In order to develop the

programs the regional history of the natural hazards, the natural hazard vulnerability analysis and the structural and non-structural mitigation actions were used as a reference.

Education sector vulnerability reduction policy: This component the education sector policies in reference to natural hazards, with qualitative and quantitative goals, in the form of agreements, standards, resolutions or laws, issued by public organizations or other institutions within the sector. This gives the endorsement necessary to incorporate vulnerability reduction measures in the planning, construction, and management of educational infrastructure. Among the actions to be taken are:

- Setting goals and objectives for vulnerability reduction in the sector, with the inclusion of all relevant organizations.
- Defining acceptable levels of vulnerability of school facilities to natural hazards.
- Coordinating with the various agencies responsible for the maintenance of school infrastructure so they can carry out specific actions to reduce vulnerability.

Education infrastructure planning processes: Include the incorporation of vulnerability reduction criteria into the decision-making on design, construction, repairs, and maintenance of the education physical infrastructure. For that purpose the planning processes used in the education sector are defined to identify the insertion points of such criteria, on the basis of assessment and analysis of vulnerability to natural hazards variables. To achieve this objective, it is necessary to:

- Develop the planning capacity of the sector.
- Train technical staff in charge of school infrastructure as well as the educational community on natural hazard information management.
- Support the sector in creating and/or up dating information systems on school infrastructure, including information about natural hazards.
- Ensure that these information systems serve as decision making tools for reducing vulnerability.
- Make sure that the identification of natural hazards, vulnerability and risk assessment, and the identification of mitigation measures are all included in the planning process.

School mitigation projects: Include the development of mitigation projects based on vulnerability assessments, and their implementation as part of all building, reconstruction, rehabilitation, repair, and maintenance activities of existing buildings as well as projects for new investment in infrastructure. In order to achieve this goal, it will be necessary to:

- Revise and update codes, standards, and regulations of school building design and construction in accordance with identified natural hazards.
- Design educational infrastructure projects that include structural mitigation measures based on vulnerability reduction criteria.
- Secure financing for mitigation efforts, including repairs, the building of extensions and the relocation of existing buildings in accordance with vulnerability reduction criteria.

- Develop supervision and monitoring mechanisms for all stages of school facility construction, reconstruction, and maintenance in those areas subject to natural hazards, in order to meet acceptable standards of risk mitigation.

Emergency Preparedness: Include the development of preparedness programs to respond to emergencies, within a global plan that identifies natural hazards for each building. It will be necessary to:

- Identify those school facilities most at risk to natural hazards.
- Support emergency and disaster preparedness programs, based on the diffusion of information about natural hazards among the educational community with the objective of developing emergency response plans.

Despite the fact that the national school vulnerability reduction plans were supported in the past by DSD/OAS, the plans have not been implemented and have received little or no support nor recognition from regional and international institutions involved in school design, construction and reconstruction. Some officials don't recognize the existence of any school vulnerability reduction plan developed in the past.

Given that there is apparently no one entity held accountable for school vulnerability to natural hazards, there is a lack of concrete ideas on just how to reduce school vulnerability in the region. Vulnerability reduction activities in education infrastructure are indirectly or superficially included in other projects and activities, focusing in all cases in natural hazards identification to be use in school building planning process.

3.1.3 Development projects that can be drawn from the experience gained:

A set of terms of reference for orientation workshops to be held in next phases and for project proposals to be carried out for pilot activities were suggested. The purpose of the workshops will be to advocate the disaster mitigation policy guidelines to senior administrators of the ME, and other organizations responsible for the construction and maintenance of schools.

The development of a manual to implement school retrofitting programs was suggested. This manual should contain a series of checklists to be used by the school community in order to evaluate the different school components in need of retrofitting. The school components will be divided in structural, architectonic, installations, furniture and equipment, and exterior areas. The manual should also give local groups information on how to access to possible donors for materials, tools and skilled labor once the community has organized work groups and the logistic support for the school retrofitting.

The following training needs, among others, on natural hazards vulnerability reduction for the personnel working with national and local institutions in charge of education infrastructure in each country were identify:

- Technical requirements for school buildings of the national's codes and standards.

- School buildings vulnerability assessment to natural hazards
- Design and implementation of school buildings vulnerability reduction plans, including policies, planning, mitigation projects, and emergency programs.

3.1.4. Summarized and concluding recommendations for the countries of assignment and the GTZ:

At this moment, there are many mandates, declarations and action plans in place at the national, regional, hemispheric and global levels related to the disaster vulnerability, but little support for following up on these manifestations can be found. There is a lack of necessary commitment and coordination at the national and regional levels. There is no follow through with training for the needs identified in the different institutions involved in school design, construction and reconstruction. GTZ could contribute in the following phases of the program supporting the training activities identified.

3.1.5. Achievement of the set project objective on the basis of the results:

These activities contributed to the actions for next phase to work with counterparts to define priorities and set up retrofit programs as part of PRECA. Upon the identification of the different institutions responsibly for school retrofitting in every participant country some guidance was provided to be use in the following phase to describe the administrative process to implement the retrofitting activities.

4. Workshop on Mainstreaming Disaster Risk Management in the Education Sector in Latin America

OAS/DSD presented the results of PRECA Phase I in a workshop organized by ISDR-UN and UNICEF in Panamá in June 2006, to identify tools and collaboration mechanisms to mainstream disaster risks management in the education sector in Latin America; elements to develop an education strategy in disaster risk management. The objective of the workshop was to identify concrete actions in Latin America, including products, tools, and cooperation modalities to advance in mainstreaming disaster risk management in the education sector, with emphasis in primary education; ensuring children rights to live in a safe environment, as well as to guarantee access to education during emergencies. This was a good opportunity to discuss with other international organization working in the region the next phases of PRECA to be implemented by the OAS/DSD.

5. PRECA Phase II

With support from the Canadian International Development Agency (CIDA), OAS/DSD is developing PRECA Phase II. The main objective of this phase is to reduce the vulnerability to natural hazards of the public school buildings in the Central America countries, by strengthening the capacity of public and private-sector actors to develop strategies for the management and retrofitting of educational buildings according to their

natural hazard vulnerability. PRECA Phase II specific objectives in each participant country are as follow:

- Improve coordination among the different organizations that interact with the educational sector infrastructure which execute activities of planning, standardization, project design, budget preparation, maintenance, repair, construction and financing.
- Promote strategies to modify planning processes, design, construction and maintenance as a function of safety for the school buildings in the school infrastructure development activities, including the adoption of appropriate building codes and standards, and ensure their effective enforcement.
- Support the design and execution of nationals programs for vulnerability reduction to natural hazards in the educational infrastructure sector that encompasses: policies, planning processes, investment projects and programs of emergency preparedness.

To reach these objectives the following outcomes and outputs (deliverables) are expected to be produce:

Outcomes:

1. Improved coordination among the different organizations working at the regional level in disaster risk reduction for the education sector like CEPREDENAC, CECC, UNICEF, and ISDR, among others.
2. Improved coordination among national actors working in school infrastructure to ensure that vulnerability reduction to natural hazards is included in their activities.
3. National actors are technically trained in school infrastructure vulnerability reduction to natural hazards.
4. Nationals programs for vulnerability reduction to natural hazards in the educational sector in each of the participant countries are reviewed, updated and/or initiated.

Outputs:

1. A regional action plan in coordination with other regional and international organizations working in disaster risk reduction for the education sector like CEPREDENAC, CECC, UNICEF, and ISDR, among others.
2. A national action plan for each participant country, six in total, in coordination with all actors working in school infrastructure to improve their activities to reduce the vulnerability of school buildings to natural hazards. The national actions plans should ensure that the local community groups will be able to formulate and implement school retrofit actions supported by regional/international NGOs committed to community-based school vulnerability reduction.
3. A training program to improve the capability of the different actor identified to reduce the vulnerability of the school infrastructure that they intervene.
4. Reviewed nationals programs for vulnerability reduction to natural hazards in the educational infrastructure sector in each of the participant countries,

updating and/or initiating national primary and secondary school vulnerability analysis to assist in the formulation and implementation of school retrofit programs.

The following are PRECA Phase II planned activities:

1. Development of a Regional Program for the Retrofit of the School Infrastructure in the Central American Isthmus. This regional approach should, among others items identify priority actions in each country (needs) and specific advancements (supply), which could be shared with other countries and identify common elements that will allow the development of the regional program.
2. Preparation of the national logic frameworks, six in total, based on the information previously collected in PRECA Phase I in each participant country related to pre, primary and secondary school vulnerability to natural hazards, that include all executed, in execution, and planned actions oriented to adapt school buildings to resist the impact of possible natural events. The information collected in PRECA Phase I also include:
    a. The list of national institutions responsible for school building development in the country.
    b. The list of regional and international agencies involved in education and interested in discussing strategies for policy development for school buildings vulnerability reduction.
    c. The lists of key personnel involve in school infrastructure in each of the institutions and agencies identified.
    d. Technical material related to schools adaptation to natural hazards available in the institutions and agencies identified.
    e. National plans for vulnerability reduction of the education sector to natural hazards, that include, among other aspects, the following:
        - Education sector vulnerability reduction policy;
        - School infrastructure planning process and the use of natural hazards information in this process;
        - Mitigation projects, use of norms and codes for building and maintenance of school buildings; and
        - Emergency response education programs.
3. Execution of a national workshop in each participant country to complete and validate the components of the logic framework for the national programs. The logic framework components are:
    a. Analysis of the interested groups in the School Retrofitting Program at the country level that include their interest in school infrastructure, school vulnerability problems perceived, resources and mandates to perform activities related to the program, potential conflicts and their interest in participating in a national strategy;
    b. Problem tree of school vulnerability to natural hazards, including the analysis of regulations (gaps and overlaps), institutional and legal frameworks for adoption of building codes and risk-based zonings, among other issues;

c. Objective tree of a School Retrofitting Program at the national level;
d. Analysis of alternative solutions to the schools vulnerability problems;
e. Logic framework matrix with narrative summary of objectives and activities (goal, purpose, products, and activities), the objectively verifiable indicators, the sources of verification, and the risk and assumptions;
f. Program implementation timetable; and
g. Budget

4. Execution of a regional forum to plan PRECA next phase in coordination with UNICEF, ISDR, CECC, CEPREDENAC, the World Economic Forum - Disaster Resource Network (WEF/DRN), and the participation of relevant national actors, international and regional institutions and NGO's identified and interested in the Program.
5. Drafting of a policy paper, which will include a set of "good" practices, lessons learned, and priority needs, and the outline of the Regional Program.

6. PRECA Phase III

Future Activities in support of the regional plan of actions:

6.1. Publication of results:

Conversation has been held with GTZ to publish the results of the two previous phases of PRECA.

6.2. Coordination with DIPECHO Project "Strengthening Local Management of Risk in the Education Sector in Central America"

ISDR, UNICEF and CECC are executing a project in the Central American countries oriented to reduce disaster risk by better preparing the vulnerable populations in the areas most prone to natural disasters and to promote the children's right for life and education at all time.

The specific objective of the DIPECHO Project is to assist CEPREDENAC, CECC and the six Central American Governments in discharging their role of compiling, disseminating, and implementing local level replicable experiences, best practices and lessons learned in disaster risk reduction in the education sector in Central America, in cooperation with national systems and regional institutions for disaster risk reduction and education. PRECA phases I and II collected and analyzed the information on school vulnerability reduction activities in all six countries and can contribute with this information to the DIPECHO project. Some of the activities and products of the DIPECHO Project where PRECA Phase I and II products could be include are:

- The Central America education sector strategic plan for disaster risk reduction;
- The interactive CD with replicable tools and models to asses and reduce the vulnerability of schools;

- The basic guide for “Safe School in Safe Territory”;
- The “Minimum Standards for Education in Emergencies, chronic situations and early reconstruction”;
- The basic guide on minimum requirements for schools to be used as shelters at the time of an emergency;
- The adaptation of the schools of at least two selected communities in Nicaragua and El Salvador to be safe places and have adequate conditions to be used as shelters in case of disasters;
- The regional workshop about the education sector strategy for disaster preparedness and response as part of the Central America education sector strategic plan;
- The Regional Consultative Meeting to be organized by the European Commission Directorate General for Humanitarian Aid (DG ECHO)

7. Coordination with the Safe at School Program of the World Economic Forum - Disaster Resource Network (WEF/DRN)

Two international groups working in school disaster risk reduction have manifested their interest in cooperating with PRECA. The Disaster Risk Network (DRN) has indicated interest in expanding their activities into the six Central American countries with OAS/DSD and UNICEF collaboration. The Coalition on Global School Safety (COGSS) and Risk/Red has also indicated interest in collaborating as advisors.

DRN is an autonomous, nonprofit initiative of the World Economic Forum, dedicated to reducing the loss of lives and livelihoods due to sudden onset natural disasters. DRN has strong backing from the engineering and construction industry worldwide. With its roots in the business sector and its humanitarian purpose, DRN experience and qualification is applied to effectively mobilize and manage the Safe at School program.

The Safe at School Program will have the backing of leading engineering and construction companies doing business in the affected regions. These companies will provide trained managers and engineers on a probono basis to oversee and conduct the assessments.

Additionally, DRN expects that leading universities in the affected regions will provide access to staff and volunteer students, and to meeting facilities, etc.

In 2007, DRN and its collaborators (Earthquake MegaCities Initiative, ISDR) will pilot the School Safety Campaign in Mexico, where risk of earthquake and strong storms is very severe.

- DRN will work closely with stakeholders in Mexico (engineering and construction companies, NGOs, research and academic institutes, government and school officials) to recruit and train School Structure Assessment Teams.
- During the pilot program, each team will inspect schools using predetermined inspection criteria. DRN goal is to reduce the loss of

children's lives in earthquakes by at least 50% by 2010, relative to previous casualty rates.

- Following each inspection, teams will report the nature and estimated cost of required improvements to retrofit or repair the school building; a roster of local/regional expertise; recommendations for locally sourced materials and suggested changes in building practices. The reports will be provided to local public officials responsible for schools safety and construction. DRN will follow up with these officials.

Proposed Methodology for Mexico Pilot:

- Vulnerable areas will be identified using ISDR, Maplecroft[1] and other resources.
- School buildings will be identified in these areas.
- Using a predefined checklist, each building will receive a preliminary survey, conducted by an engineering student under the supervision of an engineering professor.
- School buildings deemed to be at risk receive a structural assessment by a licensed engineer.
- Engineering reports are provided to school administration, local officials, and community leaders and multinational corporations with interests in the area.

Parameters to be determined for the Mexico Pilot:

- Urban and/or rural?
- Older buildings and/or recent construction?
- Primary, secondary and/or university schools?
- Public, private and/or religious?
- Save lives or operational continuity?
- Rapid or longer timeframe after pilot is completed?
- Details of survey instruments?
- Local stakeholders?
- Allocation of roles and responsibilities?
- Administrative budget?

8. Coordination with the Vulnerability and Capacity Assessment in the Americas Project of the International Federation of Red Cross and Red Crescent Societies (IFRC)

The IFRC through its Regional Delegation for Mexico, Central America and the Caribbean, together with OAS/DSD began in 2004 the implementation of phase one of the ProVention Project in Belize, Guatemala, Honduras and Costa Rica, through the application of a harmonized methodology of "Vulnerability and Capacity Assessment (VCA) in Central America"; capitalizing on the vision of building from the local to the global, and promoting simple actions to facilitate and standardize methodologies and

[1] Maplecroft maps is an Internet resource that contains detailed information of about 200 countries with maps on key social, economic, and environmental issues, including natural hazards maps.

common tools, harmonized at the level of the Red Cross National Societies (NS) in the region in order to develop integrated activities at the community level. OAS/DSD contributed to the harmonization of tools, methodologies and materials on risk reduction, allowing the production and adaptation of several community modules, including the manuals on Maintenance of Schools Safety and the Use of Community Facilities as Emergency Shelter.

The execution of a second phase of the ProVention Project will focus on Vulnerability and Capacity Assessment in Central America and South America, working with the Red Cross membership as well as with national and international agencies to contribute to integrated development efforts in highly vulnerable communities, through the consolidation of micro projects, including local school retrofitting, identified and developed during the first phase of the project. In this phase OAS/DSD will share with IFRC counterpart's relevant information about PRECA. Some of the activities and products of the ProVention Project where PRECA Phase I and II products could be include are:

- To disseminate the results from the participatory community analyses to potential and strategic partners in each of the countries involved in phase one of the ProVention Project, and to identify possible operational alliances for the implementation of school retrofitting micro projects in these communities;
- To institutionalize the application and use of the ""Risk Reduction Community Education Tool Box Better be ready", at the level of the National Societies in the Americas, as well as disseminating information to government organizations and educational centers;
- To increase the knowledge and use of an interactive CD by the National Societies in the Americas, government organizations and educational centers, with the purpose of validating and improving the "Risk Reduction Community Education Tool Box Better be ready"; and
- To undertake and disseminate participatory diagnoses in rural and urban schools and communities with high vulnerability levels.