The General Assembly decided in December 1991 to strengthen and improve the United Nations' response to emergency humanitarian needs as well as the support of rehabilitation and recovery actions in the context of more long-term human development (Resolution 46/182).

Experience from different emergency operations has made clear that delay due to lack of resources and insufficiency in co-ordination can be fatal. The crisis in the Persian Gulf exposed by the media to the world community showed children's vulnerability when caught by the atrocties of war. Other complex and acute emergency situations caused by conflict, population displacement and natural disasters; for example drought in the Horn of Africa, requires a strengthening of the UN system to cope with these complicated situations. The need for a system of early warning and preparedness has emerged over the years. Knowledge about the process of catastrophies has grown and we know for example, that after the first week most of the casualties can be counted. In almost all emergencies children are the most vulnerable because their bodies and souls are still under development.

Lately, the awareness of children's psychological needs after traumatic experience has grown. Whether the catastrophe is man-made, natural or a combination of both, children need special support

When the Special High-Level Council of the International Decade for Natural Disaster Reduction (IDNDR) held its inaugural session in October 1991, the Council considered that "reducing vulnerability to natural disasters is a major goal requiring concerted and co-ordinated efforts of government, UN-system organizations, the world's scientific and technical community, volunteer organizations, schools and educational institutions, the private sector, the media and individuals at risk Vulnerability assessment and early-warning of potential disasters and effective communication to the public are essential.

Developing countries and highly-vulnerable groups, especially children, should be given the greatest priority in disaster-mitigation activities, including actions to address the psychological effects of disasters. Among the means for accomplishing this goal are locating and constructing of housing, infrastructure, schools and hospitals to avoid and resist hazard, educating students for self-protection, and using the media to reach the vulnerable population.

The United Nations Children's Fund, UNICEF, has doubled its emergency actions in 1991. UNICEF has responded to emergency situations in about 40 countries. Natural disasters, health-related emergencies and armed conflicts formed the background for these contributions. The unprecedented demands are estimated to have taken some \$US 140 million of UNICEF's resources. In undertaking these emergency interventions, UNICEF often refers to the Convention on the Rights of the Child and the World Declaration on the Survival, Protection and Development of the World Summit for Children, and especially to Committment no. 20:8, as adopted by the world leaders participating at this World Summit:

# Co-operating to Protect Children

By Lisbet Palme Special High-Level Council for IDNDR

"We will work carefully to protect children from the scourge of war and to take measures to prevent further armed conflicts, in order to give children everywhere a peaceful and secure future. We will promote the values of peace, understanding and dialogue in the education of children. The essential needs of children and families must be protected even in times of war and in violence-ridden areas. We ask that periods of tranquility and special relief corridors be observed for the benefit of children, where war and violence are still taking place."

UNICEF's 1992 Executive Board will discuss the circumstances under which UNICEF should intervene as a mediator for children in armed conflicts.

It is now widely recognized that events in different stages of childhood may effect the individual during its whole adult tife. It is also recognized that we have possibilities of alleviating these later sufferings if we take proper care of children after catastrophes, disasters and armed conflicts. Our obligation for children after extreme life-experiences is clearly stated in article 39 of the Convention of the Rights of the Child promising them physical rehabilitation, psychological recovery and social reintegration in an environment which fosters health, dignity and self-respect. This paragraph should be a guideline for all our efforts to help children in extreme life-situations.

Amatya Sen, Professor in economy of development at Harvard University, is one of the scientists who has studied different natural disaster processes connected to famine. He states that starvation does not come without warning, that it can be identified. He also tells us about how decrive the democratic society is for citizens to be able to bear influence on the upcoming crises. A free press increases the people's ability to disseminate information concerning critical circumstances and thereby to act in favour of positive change.

Amata Sen's analysis will contribute to our understanding of the context in which some disasters emerge and how they most severely affect people without political power

As members of the international community, we must continue to improve our strategies to protect children from disasters and to support them when they suffer from traumatic experiences

(See also recommendations on page 5)

# Walk, Don't Run

Teaching Children about Earthquakes

Extracts from an article in the "Natural Hazards Observer", September 1991 written by Katharyn E K.Ross from the National Centre for Engineering Research.

"When there is a Cyclone, go to school"

UNESCO's Educational Buildings Programme and Natural Disasters Earthquake education is a comprehensive subject that requires students to understand the fundamental causes and characteristics of earthquakes - both structural (buildings, bridges etc.) and nonstructural (bookshelves, windows, light fixtures,etc.) - and the appropriate way to react when an earthquake strikes. In our haste to educate students concerning hazards and protective measures, we forget to teach them about the earthquake itself, its causes and its characteristics. We forget to give them enough information so that they can critically evaluate the hazards in their environment. If we do not teach a child how to distinguish correctly between an earthquake and another natural hazard, or give that child enough information about why certain actions are recommended, how can we expect that child to respond appropriately during the event? How can we expect him or her eventually to understand larger mitigation issues?

Without a clear understanding of earthquake phenomena and protective measures, children will not be able to identify an earthquake when it happens or protect themselves from the effects of earthquake shaking.

In a survey conducted in the United States, students were interviewed from three different schools in two geographical locations to determine their conceptions about earthquakes. Understanding the cause of an earthquake was an especially difficult concept; answers about the earths core included misinformation about it being too hot, too much wind, loud noises, thunderstorms, drilling on the sidewalks and heat from the sun on the earth. There appeared to be confusion between natural hazards and earthquakes. Some students defined an earthquake as a "volcano", or used the word "eruption" to describe an earthquake. Additional natural hazards such as wind, rain, thunder, tornadoes and hurricanes emerged in their answers. Response to an earthquake was confusing to students who had already received science instruction on the subject. Preparedness had not been included in the curriculum. Students questioned about appropriate action during an earthquake answered "stand in a doorway", but no student mentioned the necessity of it being a load-bearing or support wall. They did not have the information to evaluate whether certain doorways might be safer than others. Finally, other answers showed that some children felt the earthquake response actions they had been taught would work if the earthquake was not too large, but that in the "big one", the recommendations probably would not work

Students' prior knowledge of the earthquake hazard should be assessed through pretesting and interviewing. Earthquake education must give equal importance to addressing the problems of misinformation and misconceptions as well as earthquake causes and appropriate responses. The instruction itself must be examined and assessed for effectiveness, age appropriateness, and practicality. As is the case whenever we tell a child to walk instead of run, we want to make the path as free of obstacles as possible

In recent years, earthquakes, cyclones, rains and floods have led to the destruction, of vast numbers of educational buildings in all regions, with particularly disastrous effects in developing countries. In most rural settlements throughout the world, the school is often the largest building in town. During the day, it houses most of the younger generation on which the future of any community depends. In a natural disaster therefore, the school has to survive, since an entire generation in it may be at risk.

After the destruction provoked by the 1988 Bangladesh floods, research for a new type of school design to resist such disasters was instigated.

Among the criteria to be followed was the need for versatility. Any building left standing in a flood or cyclone tends to serve as a community shelter and rehef centre for victims. Another problem that arises is the destruction of the furnishings and damage done by the occupants to those schools that had remained untouched by flooding and served as relief centres. Wooden furniture and shutters are often the only source of energy for cooking food and boiling water, for those marooned in the buildings and righting for their lives.

Two basic designs were developed with variations built in for the cyclone prone coastal regions. In shallow flooding areas, schools were built on a mound while in deep flood areas the classrooms were built on stilts or columns that allowed the water to flow underneath. Stilt

designs were more expensive because extra cement was needed to reinforce the base. However in normal times the ground level area in these buildings can be used for lessons or other activities, thus maximizing the use of available space. In extreme flood-prone areas a flat roof is built so people can climb onto it for further protection.

Stilt schools have basically been designed for the coastal regions and must therefore also

be protected from extremely strong winds. There must be a continuous connection from the roof to the foundations using the right sort of nails, steel straps, bolts and steel rods. The roof is linked firmly to the tops of the walls and the walls are tied firmly to the foundations. A roof that is only lightly attached to the walls and relies on its weight to keep it in place, will blow away in strong winds.

Local materials are used as much as possible, which in spite of the lack of resources in Bangladesh is not a major difficulty Bangladesh has a strong brick making tradition and so bricks were used to replace rammed earth walls. Cement had to be imported Steel is also locally produced and this was used for classroom furniture rather than wood. Steel tables and chairs were designed to be easily stacked in a separate classroom when the school is needed as a relief centre. Steel frames for pitched roofs were designed to replace wooden timber beams, thus removing the temptation to use the building components for firewood.



The principal architect working for UNESCO in this region tried to persuade local planners that for cyclone areas an added cost of between 3 to 15% would save lives and protect the school buildings in the long-term.

Please contact M Rudolpho Almedia. Chief, Educational Architecture Unit, UNESCO 7, place de Fontenoy. 75700 Paris.

# CHILDREN WITH POST-TRAUMATIC DISORDERS DUE TO NATURAL OR MAN-MADE DISASTERS ARE IN NEED OF HELP.

They need support to overcome traumas caused by threats that are often fatal. Analysis and assessment are natural preconditions for emergency assistance in all different contexts. In order to use knowledge and resources efficiently, the organisation for psychological support should be strong and effective.

Magne Raundalen and Atle Dyregrov, Norwegian child psychologists, have studied how children experience crises caused by the different kinds of disasters and how these children then can be reached and supported when returning to a normal life. The methods for protecting children from traumas could be described by three components:

#### I Trauma protective situation factors

The most important of the trauma protective factors is the stability in the home environment and avoiding separation from the family or community group. It is important that wherever possible peer-group activities are continued even in the shelters.

To sustain their sense of well-being children should receive good nutritional health care. The children should be continuously reassured about their situation and the progress being made towards a return to normal living conditions.

### • II TRAUMA PROTECTIVE SHIELDING FACTORS

The most important element here is the need to reduce exposure to traumatic events such as direct body and life-threatening mutilation or wounding, and also to the destruction of house and property. Stressful impressions, following such traumatic situations, could result in lasting insecurity and loss of vitality. Therefore the child should be protected as much as possible from these experiences. Understanding of a disaster-related situation and political awareness in times of conflict are as essential for the child as well as for parents.

Other factors include professional advice for parents, immediate reunion with relatives, and the presence of the parents during crisis.

# III TRAUMA PROTECTIVE FACTORS CONTAINING PSYCHOLOGICAL HELP

The most important factor here is the possibility of immediate debriefing. If the child has witnessed atrocities, aggression to relatives or known persons, destruction of the home or other offensive experiences they should be given, during the coming days, an opportunity to talk about it in an understanding and sympathetic atmosphere. It is also

(consinued on page 6)

important that they are correctly informed about what has happened, what is going to happen, and what will be the most likely outcome of the situation. Positive and optimistic attitudes, supportive adult communication and sharing of concern is psychologically reassuring in a situation of crisis or disaster.

Children should be given advice so they can understand their own reactions as well as direct training in how to control these reactions when reminded of what has happened. Disasters and other extreme experiences—can affect children's prospects for the future. Therefore it is of great importance to explain what is going on in the rebuilding and rehabilitation of the affected community and to discuss the prospects for returning the situation for the child and the family back to normal.

In an area where it is possible that the disaster will be repeated; direct training in confronting the particular event and also in coping with psychological stress, could be a good strategy to reduce the vulnerability of the child.

Text kindly provided by Mrs. Lisbet Palme, President Swedish Committee for UNICEF; member of the Special High-Level Council for IDNDR

## May 4, 1992

Following a destructive earthquake in California a few years ago, a group of mothers at a pre-school in Los Angeles decided to form a committee and work on a very thorough disaster plan. They also made plans to make the school rooms safer and to obtain the special materials needed for a disaster that might occur while their children were attending school. There are 120 children aged between two and a half years and five years in the school, with fourteen members of staff.

The school purchased supplies and the mothers organised volunteers to anchor all cabinets and pianos to the walls. Safety catches were installed on all cabinets so the cabinet doors will not swing open and the contents fall on the children. A company was hired to attach a special plastic film to all the windows that did not have tempered glass so that if the windows should break during an earthquake, the children would not be struck by shards of glass.

Each classroom was equipped with a backpack which hangs next to the door, and with a plastic garbage can. The backpack contains a plastic sheet to sit on, lollipops, flashlights, plenty of first aid supplies and a pair of heavy work gloves in case the teacher has to move furniture, debris, etc. The plastic garbage can has bottled water, plastic cups and packaged food items for preparing snacks in case the children must remain at school for an uncertain length of time. In a shed in the yard are more plastic garbage cans of food, water and first aid supplies for the children who would be in the play yard when an earthquake strikes

Each October the committee of mothers purchases fresh supplies of bottled water, food and batteries for flashlights and the radio. All back packs and plastic garbage cans are emptied and all the supplies are replaced.

The master file is in a jumbo-size binder, kept in a large canvas bag in the school office. The binder is filled with instructions for every possible contingency; long lists of supplies, emergency procedures and telephone numbers. This information is always kept up-to-date by the committee of mothers. Special information is also kept in the file about who to contact and who to release the children to in case parents are unable to come for them. Also in the bag there is a battery operated radio ready for use.

At pre-school level the children's role in an earthquake is difficult to define. They learn the standard earthquake drill which is to crawl under a table quickly and to stay there and to wait for instructions. However there is a problem in that while it is necessary for the children to learn the drill, they should not be frightened into worrying about being in an earthquake. So they are taught that if there is an earthquake everyone will stay together and have a picnic and wait for someone they know to come for them

It is possible that children could be detained at school for several hours. In this case teachers and staff will remain with them until they are picked up by parents or the designated person. If a local disaster centre is set up because of a crisis, the children will walk the few blocks to it accompanied by the teachers and staff, who will remain with them until such times as parents can collect them. It could be that parents may be far away or stuck on the freeway.

The school is most grateful to the dedicated mothers who worked on the plans and made the school more safe in case of a disaster and to those mothers who each year check all the supplies and see to it that their children will be as safe as possible should there be a disaster while their children are at school.

Extract from a letter to the Secretariat Editor of STOP DISASTERS from a pre-school teacher in Los Angeles.