

Contents

- Page 2-3
Hooligans in the Caribbean
Different systems – social, political, natural – cope differently with the destructive forces of hurricanes in the Caribbean, with very different results.
- Page 4-5
Mind mining
If there is a positive side to a disaster it's the opportunity to learn from earlier mistakes. A case study from Romania.
- Page 6-7
What (is) a disaster
Natural and technological hazards, man-made or God-given, sudden, lasting – how do we classify disasters?
- Page 8-9
In theory
Theoretical and rational analyses reveal correlations between catastrophic events and their impact.
- Page 10-11
Fragilised environments
Factors that aggravate vulnerability summarised in seven exclusive global maps.
- Page 12-13
Too late?
What disasters are looming? Some can be foreseen, some avoided. It all depends on how we react to the information we receive.
- Page 14-15
Be prepared!
Knowing how to act in emergencies could save many lives.
- Page 16-17
The day after
Environmental management is an indispensable part of rehabilitation, argue UNEP's post conflict assessment and joint OCHA/UNEP environmental emergency units.
- Page 18-19
Forum
Industry has an interest in disaster risk reduction, emphasise different industry councils as they present their disaster management strategies.
- Page 20-21
Finance, insurance and transport
Faced with steadily increasing losses insuring hazards, insurance firms have to look for new ways of covering premiums.
- Page 22
The way we tell it
UNEP's ideas for disaster management and good advice on how to get a message across

Illustration: This Japanese print criticizes the ineptitude of deities who have allowed the M 6.9–7.1 Ansei Earthquake (1855) to occur. The giant catfish (namazu) represents the earthquake. Our source is Gregory Smits' (Pennsylvania State University) online textbook "Topics in Japanese Cultural History". For more details see page 19.



Environmental management for disaster reduction

Editorial
Klaus Toepfer

The clean-up after the unprecedented tsunamis that ravaged South Asia last month is still on-going. In the weeks following this horrific human tragedy environmental concerns from widespread water pollution to the removal of debris and waste on a massive scale have been all too apparent.

While the strongest earthquake in decades and the devastating tsunamis that followed could have been less tragic if warning systems had been in place, it is increasingly clear that the negative effects of this, and other kinds of natural disasters, could have been and can be lessened not only by the speed and efficiency of our relief efforts, but also by maintaining the proper environmental infrastructure.

It is premature to draw final conclusions on the South Asia tsunami, but an earlier tragedy in the Caribbean, where floods and mudslides caused by Hurricane Jeanne killed up to 3000 people in Haiti

and left another 200,000 affected, demonstrated all too vividly how natural disasters strike differently, depending on how the ground was "prepared for them".

In Haiti, extensive deforestation left large hillsides bare, allowing rainwater to run off directly to the settlements at the bottom of the slopes. In neighbouring Dominican Republic, hit by the same storm, there were many fewer victims to mourn, and part of the reason is that their hills are still covered by a protecting forest.

A similar disaster unfolded more recently when half a million people were affected by successive storms in the Philippines. As in Haiti, the destruction and loss of life wrought by the storms was made worse by deforestation in the hills above villages and towns. In response to the crisis, President Arroyo banned all commercial logging as rescuers rushed aid to wet and hungry survivors.

These two examples clearly show that taking care of our natural resources,

and managing them wisely, not only assures that future generations will find better living conditions, but it reduces the risks that natural hazards pose to people today.

In this vein, and in close cooperation with our United Nations partners, UNEP's goal is to reinforce the centrality of environmental concerns in disaster management, and to promote sound management of natural resources as a tool to prevent disasters or lessen their impacts on people, their homes and livelihoods.

Population growth, industrialisation and environmental abuse have opened a Pandora's Box of catastrophes across the planet. From spectacular industrial accidents like Bhopal and Chernobyl to the horrors of drought in Africa and the extreme weather that battered Japan and the USA last year, the world is more and more aware of natural and man-made disasters. The question is how to prevent them, and if they should nevertheless happen, how to respond. It is these questions that the

Kobe World Conference on Disaster Reduction and the necessary follow-up action, must address.

This edition of the Environment Times illustrates the problems and challenges before us, showing many practical examples on how useful preventive action can be taken. It lays out why we must think "environment" at every stage of disaster management, be it in preparing, preventing, mitigating or reacting.

Today, we are sadly witness to a growing number of devastating hurricanes, typhoons, droughts and floods across the globe which as a result of climate change are set to become more frequent and violent. As last year's horrific pictures from Haiti and the Philippines show, and with the almost incomprehensible scale of the South Asia disaster unfolding before us, it has become painfully clear that without the environment firmly in the equation there will be no long-term disaster risk reduction.

Dr. Klaus Toepfer is the Executive Director of the United Nations Environment Programme.

Dear reader, The Editorial Team

While we are adding the last editorial touch to this Environment & Poverty Times, the world is under shock. All along the coast of the Indian Ocean, villages, entire islands have been washed into the sea. Before anything else, we want to express our compassion for the victims and their families. With a bit of distance, we hope that this publication contributes to a better understanding of the mechanisms that are needed to minimise the effects of in themselves unavoidable natural disasters.

When reading our Environment Times, you will sometimes wonder, "What on earth has this article got to do with disaster management?" Our understanding of disasters and its causes is indeed a very broad one in this publication. We are interested in the relations between different environments – the social configuration, economic possibilities, the institutional arrangements and political systems,

the state of the environment, natural predispositions of an area - and how these influence the occurrence of disasters and their effects. Where is the border between natural and man-made catastrophes? What can be done to alleviate a dangerous set-up? What factors aggravate the risks? Our choice of articles wants to allow all those angles to be looked at. And above all, to show examples where good approaches have been taken, alongside of pointing the finger at practices yet to be improved. After all, we learn from our mistakes. Let's hope that tragedies have at least this one positive effect.

A number of articles talk about developments caused by human action that so far have passed unnoticed, but might well in the near future lead to a catastrophic situation. What needs to happen before we intervene? This is our opportunity to avoid future disasters. We have the knowledge to do so, all we need is to convince the decision-makers of the urgency of a situation.

As for the structure of the paper, the intention was to present the material

in the order of the stages of disasters: from prevention early warning and preparedness to relief and reconstruction. This proved to be difficult, as we all know that 'reconstruction starts with prevention', but we nevertheless kept this basic roster, although certain articles could fit in different categories. The four stages are each preceded by an example of a natural event and an industrial accident, where the authors show the linkages between environmental management, risk reduction and effect on livelihoods. The end of the paper gives the floor to different industrial sectors and features the role of the local level in disaster management. Another double page is dedicated to more general reflections on the role of environmental management in disaster risk reduction. The central pages feature a set of maps displaying issues related to disasters that possibly are not necessarily perceived as such.

Enjoy reading!

All responsible for disaster reduction

Sálvano Briceño

Over the past 10 years the world has suffered an increasing number of "natural" disasters affecting more than 2.5 billion people, killing 478,100 and causing economic losses of about \$690bn. We may not necessarily be able to prevent natural hazards such as earthquakes, volcanic eruptions, hurricanes and floods, but we can certainly act to prevent their disastrous effects on vulnerable communities.

The World Conference on Disaster Reduction (WCDR) coincides with the 10th anniversary of the great Hanshin-Awaji (Kobe) earthquake that claimed more than 6,000 lives and cost a stunning \$100bn. It is an opportunity to share experiences in disaster reduction practices such as environmental management and look at ways of reducing risk worldwide.

The WCDR is a milestone event that will build on the findings of the review of the Yokohama Strategy adopted 10 years ago. It will develop elements for an articulated programme for dis-

aster risk reduction, addressing the objectives of the Johannesburg Plan of Implementation, essential to achieving Millennium Development Goals.

Building disaster resilient communities means that disaster reduction is everyone's responsibility. A disaster reduction strategy is a global challenge that involves communities, schools, the media, researchers, scientists, non-governmental organizations, various sections in governments and regional and international organizations including many agencies and programmes of the UN system. UNEP is the specialist programme in this field and at the International Strategy for Disaster Reduction secretariat we are looking forward to closer collaboration with UNEP to follow up WCDR decisions and recommendations in order to strengthen environmental capacities in vulnerable countries and thus reduce risk and vulnerability while achieving sustainable development.

Sálvano Briceño is the Director of the Inter-Agency Secretariat of the International Strategy of Disaster Reduction UN/ISDR (see also www.unisdr.org)