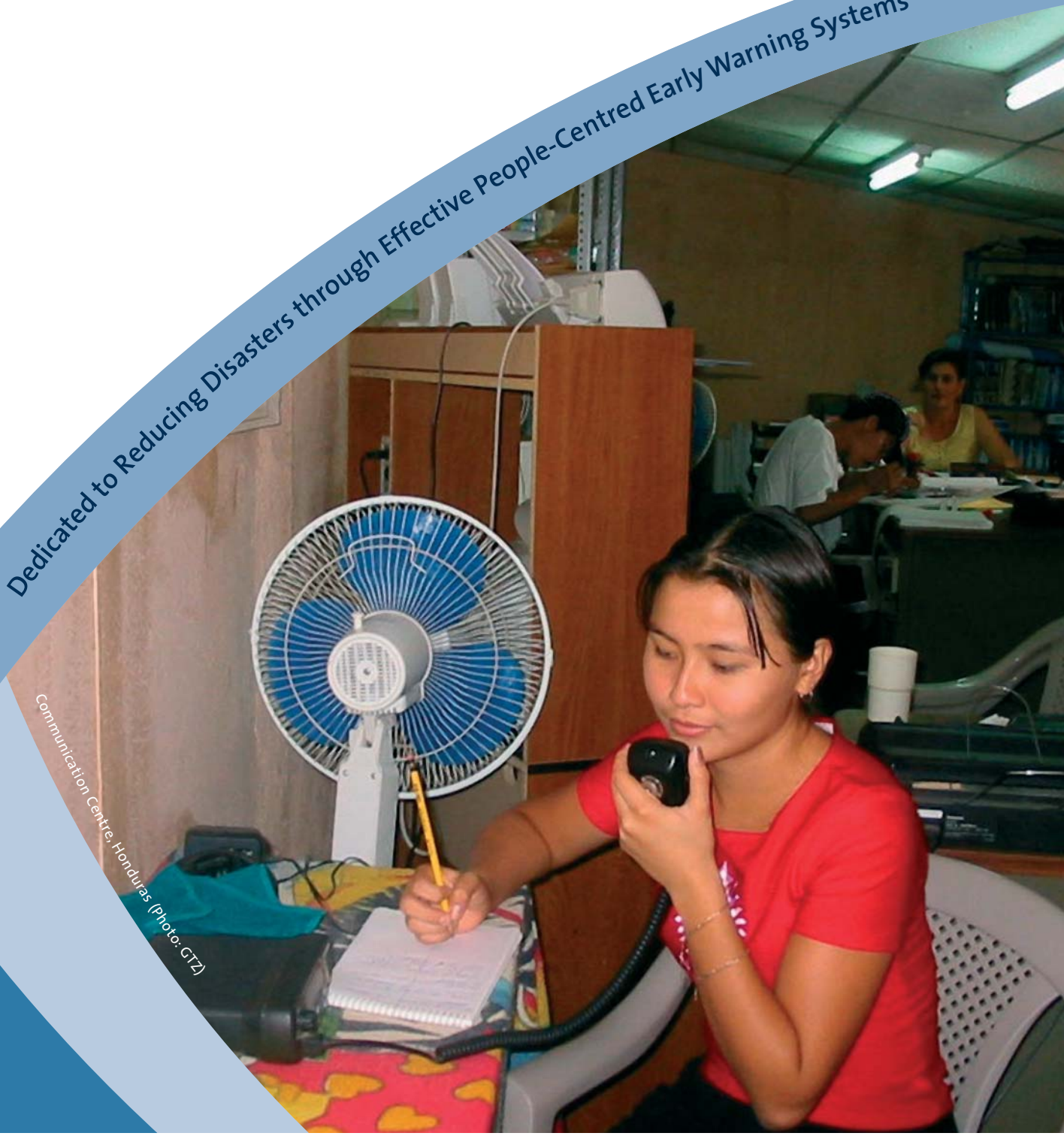
THE INTERNATIONAL EARLY WARNING PROGRAMME - IEWP

Dedicated to Reducing Disasters through Effective People-Centred Early Warning Systems



Communication Centre, Honduras (Photo: GTZ)

WFP

International Strategy for Disaster Reduction

Millions of people worldwide owe their lives and livelihoods to effective early warning systems.

People-centred early warning systems empower communities to prepare for and confront the power of natural hazards. They bring safety, security and peace of mind.

Early warning systems provide resilience to natural hazards, and protect economic assets and development gains. They help society adapt to and defend against the uncertainties of climate change.

But many countries and many millions of people are not protected by effective early warning systems – risking devastation, death and destitution.

The International Early Warning Programme is a vehicle for all organisations to join and help implement and improve early warning systems. The programme is sponsored by leading United Nations organisations.

THE FOUR ELEMENTS OF EFFECTIVE EARLY WARNING SYSTEMS

Examples of ways to build people-centred early warning systems

Develop maps of flood risk showing flood heights, safe havens, and routes to safety.

Undertake surveys of the vulnerability of people living on landslide-prone hillsides.

Assist national weather services to access international weather data and satellite images.

Support remote communities to install simple electronic river gauges and alert systems to give warning of flash floods.

Stimulate research and training in modern early warning science and technology.

Undertake studies of how people access and interpret early warnings and apply the lessons to dissemination processes.

Develop, test and refine evacuation scenarios for different types of emergencies in highly populated areas.

Promote community-based systems to check on elderly and disabled people when storms or heatwaves are forecasted.

Develop performance standards and guidelines for different types of early warning systems.

Early warning systems are widely recognised as worthwhile and necessary investments.

But in many cases, early warning systems do not exist, are ineffective, or break down at critical points.

Tsunami When undersea earthquakes occur in the Pacific Ocean, their locations and strength are immediately pinpointed by monitoring centres, and warnings of possible tsunamis are issued. The lack of a comparable early warning system in the Indian Ocean was a factor in the huge loss of life there from the 26 December 2004 tsunami.

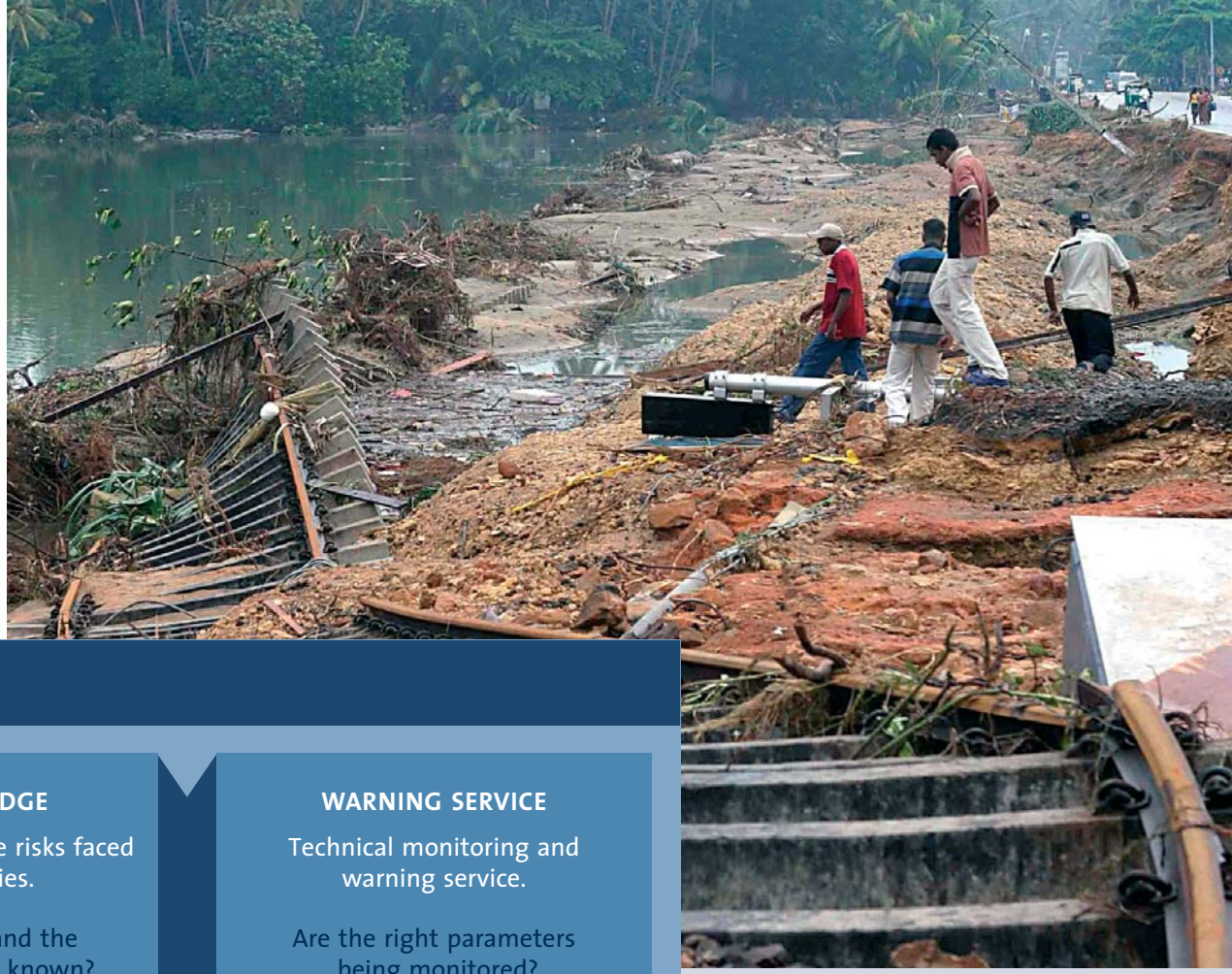
Wildland fire Each year wildland fires around the world burn an area equivalent to the size of India, with large environmental and economic costs. Fire authorities now are cooperating globally to monitor and better manage fire risks, including providing community-based fire management training, awareness campaigns, and education programmes.

Desert locust plague The early warning system for desert locusts coordinated by FAO warned in early 2004 that a plague was imminent. Unfortunately donors did not respond to the request for US$ 9 million for aerial spraying, so that by August 2004 the appeal had to be raised to US$ 100 million – a costly lesson that early warning systems cannot be effective if the communication and response elements fail.

Urban flash floods Flash flooding in urban areas can cause enormous damage and loss of life. In Japan, the Public Works Research Institute prepares detailed flood hazard maps for towns and has shown that people familiar with the maps respond to early warnings much more quickly and effectively.

Landslides An early warning system for the Yangtze River valley monitors landslides using 70 stations employing over 300 professionals. The network protects a population of 300,000 people and so far has forecasted 217 landslides avoiding estimated economic losses of US$ 27 million.

El Niño phenomenon The 1997–1998 El Niño event was blamed for the deaths of 24,000 people and damage in excess of US$ 34 billion worldwide. However, using seasonal climate forecasts, California undertook preventative activities that reduced its losses to half the US$ 2.2 billion losses that occurred in the previous 1982–1983 El Niño.



Railway tracks damaged by the great tsunami of 26 December 2004, Sri Lanka (Photo: dpa)

RISK KNOWLEDGE

Prior knowledge of the risks faced by communities.

Are the hazards and the vulnerabilities well known?

What are the patterns and trends in these factors?

Are maps and data widely available?

WARNING SERVICE

Technical monitoring and warning service.

Are the right parameters being monitored?

Is there a sound scientific basis for making forecasts?

Can accurate and timely warnings be generated?

DISSEMINATION

Dissemination of understandable warnings to those at risk.

Do the warnings reach those at risk?

Do people understand the warnings?

Do they contain relevant and useful information?

RESPONSE CAPABILITY

Knowledge and preparedness to act by those threatened.

Do communities understand their risks?

Do they respect the warning service?

Do they know how to react?

Are plans up to date and practiced?

The International Early Warning Programme will build these four elements into early warning systems world wide.

Floods in Mekong basin In the populous and frequently flooded Mekong River basin in Southeast Asia the early warning system of the Mekong River Commission (MRC) is a vitally important service. Reaching the villages is difficult however, but can be achieved with the assistance of NGOs such as the Cambodian Red Cross.

Typhoons and hurricanes In many countries, sophisticated observing and forecasting systems of national weather services provide good warnings of typhoons and hurricanes. In 2004, millions of people in the Americas and in Asia were evacuated, undoubtedly saved thousands of lives. But nearly 2000 people in Haiti died because of lack of warnings.

Drought and famine Early warning systems coupled with humanitarian food aid have hugely cut the number of people dying from famine, possibly saving two million lives over the last twenty years. International and regional cooperation also has strengthened the abilities of African countries in early warning and food security management.

Volcanic eruption Warnings of a catastrophic eruption of Mt. Nyiragongo in 2002 were not well communicated or understood and the nearby town of Goma, Democratic Republic of Congo, suffered great losses. An improved early warning system with strengthened community understanding and mitigation responses is now being developed.

THE INTERNATIONAL EARLY WARNING PROGRAMME - IEWP

Dedicated to Reducing Disasters through Effective People-Centred Early Warning Systems. Launched at the World Conference on Disaster Reduction, Kobe, Hyogo, Japan, 19 January 2005.

Early warning systems can be extremely effective at saving lives and property and protecting the vulnerable when natural hazards threaten. But many countries do not have early warning systems and warning systems too often fail at times of crisis.

IEWP aims

The programme is a vehicle by which partner organisations cooperate and develop shared and systematic approaches to advancing early warning systems worldwide. IEWP aims to:

- Develop international dialogue and a common framework for action, and promote early warning in policy debates and as a development priority.
- Collate and disseminate good practices and other information on early warning systems.
- Define and support capacity building projects in priority areas of need, involving humanitarian and development communities.
- Develop improved tools and techniques, including guidelines and performance standards for early warning systems, and formulate priorities for further research and development.

Benefits of the IEWP

Benefits will include better coordination, wider information flow, a stronger focus on integrated people-centred early warning systems, wider recognition of early warning's role in meeting development goals, and ultimately the reduction of impacts and disasters on vulnerable communities.

IEWP partners

The IEWP was launched by a partnership of United Nations organisations, and is open to all organisations that have a stake in effective early warning systems and want to collaborate to improve them, such as humanitarian agencies, food aid organisations, emergency management organisations, hydro-meteorological services, environmental agencies, academic institutes, community organisations, NGO relief agencies, development assistance donors, and United Nations organisations.

IEWP organisation

There are four elements to the programme organisation, all of which are under development: (i) a programme advisory committee to provide guidance, (ii) a programme definition document developed consultatively by partners, (iii) a work programme devised and primarily undertaken by partners, (iv) secretariat support by the UN/ISDR-PPEW.

Origins of the IEWP

The International Early Warning Programme was proposed at the Second International Conference on Early Warning (EWC-II), held in Bonn, Germany, 16–18 October 2003. The conference also called for an organisational platform to support the programme – the Platform for the Promotion of Early Warning (PPEW) already has been established with support from the German Federal Foreign Office.

Early warning activities coordinated by the UN sponsoring organisations

HEWSweb - the Humanitarian Early Warning Service
This new website (www.hewsweb.org), developed by the World Food Programme (WFP) on behalf of the UN Inter-Agency Standing Committee (IASC) on humanitarian matters, provides one-stop access to early warnings and forecasts from specialised institutions for natural hazards and socio-political developments.

Natural Disaster Mitigation and Prevention Programme
This new World Meteorological Organization (WMO) programme coordinates WMO's numerous worldwide disaster-related activities in research, observations and warning services for weather and climate events. See www.wmo.int/disasters/

Global Information and Early Warning System (GIEWS)
The Food and Agriculture Organisation's GIEWS system (www.fao.org/giews) provides extensive global information on food production and food security, including real-time satellite images, data summaries and alerts, commodity assessments, and information on locusts and other pests and diseases.

IRIN and ReliefWeb
The UN Office for the Coordination of Humanitarian Affairs (OCHA) sponsors the Integrated Regional Information Network (IRIN), www.irinnews.org, and ReliefWeb, www.reliefweb.int. IRIN gives access to current information such as analyses, fact sheets and country updates, while ReliefWeb supports a large searchable database of documents and studies on complex emergencies and natural disasters.

Environmental Early Warning and Assessment
The United Nations Environment Programme (UNEP), through its Early Warning and Assessment division (www.unep.org/dewa) analyses the global environment and global and regional trends, in order to provide policy advice and early warning information on environmental threats.

International Tsunami Information Centre
Established by the United Nations Educational, Scientific and Cultural Organization (UNESCO) this Hawaii-based centre supports Pacific Ocean member states to establish and maintain tsunami early warning systems and to mitigate tsunami hazards. See http://ioc.unesco.org/itsu/.

International Strategy for Disaster Reduction
The ISDR is the UN's centrepiece strategy for reducing disaster reduction, involving many UN agencies, regional organisations and civil society (www.unisdr.org). The ISDR promotes and supports initiatives on early warning.

International Strategy for Disaster Reduction

Platform for the Promotion of Early Warning

For further information on the IEWP, contact:
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