

# Outline for national reporting and information on disaster reduction for the World Conference on Disaster Reduction (Kobe-Hyogo, Japan, 18-22 January 2005)

## Background

The Yokohama Strategy and

Plan of Action was adopted at the World Conference on Natural Disasters, held in 1994 as a mid-review of the progress during the International Decade on Natural Disaster Reduction (IDNDR, 1990-1999).

As the successor of the IDNDR, the Secretariat of the International Strategy for Disaster Reduction (UN/ISDR) coordinated a global review of disaster reduction initiatives, "Living with Risk", published in 2002.

National authorities and platforms on disaster reduction are invited to provide information for the preparatory process for the World Conference on Disaster Reduction in 2005. This information will be used to identify needs and future policy recommendations to be adopted at the Conference.

The preparation of this information provides an opportunity to bring together national stakeholders from Government, academic and other sectors dealing with disaster risk reduction. **Therefore we encourage consultations with institutions specializing in disaster management, environmental planning, education, meteorological services, key NGOs and other key domains.**

If a national platform or network for disaster reduction does not already exist in your country, this might be the time to call for such a mechanism (ad-hoc or formalized). For more information on national platforms for disaster reduction, contact Mr. Haris Sanahuja at the ISDR Secretariat ([sanahuja@un.org](mailto:sanahuja@un.org)).

Deadline for receiving inputs at UN/ISDR: **15 June 2004**. Later submissions will also be made available at the Conference, but will not form part of the proposed policy recommendations.

*Information provided will be utilized by ISDR for various information products, including in the website as country information. Therefore, please indicate if any information is of restricted nature.*

## **How to use these guidelines to prepare your national information**

The information should be provided under the following headings (please indicate N/A, if no information is available). For each section please indicate *current status*, *main difficulties* or *gaps* encountered, and *challenges for the future*:

1. **Political Commitment and Institutional Aspects** (see Annex, Component 1)
2. **Risk Identification (including early warning)** (see Annex, Component 2)
3. **Knowledge Management (education, research, information, public awareness)** (see Annex, Component 3)
4. **Risk Management Applications/Instruments (technical, social, financial, environmental)** (see Annex, Component 4)
5. **Preparedness and Contingency Planning** (see Annex, Component 5)
6. **Good practices in disaster risk management** (see Annex, Component 6)
7. **Priorities to address at WCDR** (see Annex, Component 7)

Use the explanations and questions for each heading provided below as a guide for your contribution. If no information is available, leave the questions unanswered marked as N/A. Short answers and analyses are encouraged. When applicable, please indicate any relevant documentation or other sources of information on the subject.

(For additional details, see the "Framework for Guiding and Monitoring Disaster Risk Reduction" <http://www.unisdr.org/dialogue/basicdocument.htm> ) or contact the ISDR Secretariat.

Please provide your information if possible by electronic means to the ISDR Secretariat c/o Mr. Haris Sanahuja ([sanahuja@un.org](mailto:sanahuja@un.org), tel: +41-22-917 2808) and Ms. Christel Rose ([rosec@un.org](mailto:rosec@un.org), tel: +41-22-9172786

or by fax to: ISDR Secretariat, United Nations, Palais des Nations, CH-1211 Geneva, Switzerland

In Africa, please contact the UN/ISDR Office in Nairobi, Kenya, for more information: Tel.: +254 20 62 45 68 - Fax: +254 20 62 47 26 - E-mail <[ISDR-Africa@unep.org](mailto:ISDR-Africa@unep.org)>

In Latin America and the Caribbean, please contact the UN/ISDR Office in San José, Costa Rica, for more information: Tel.: +506 224 11 86 - Fax: +506 224 77 58 - E-mail <[eird@eird.org](mailto:eird@eird.org)>

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Was the information provided consulted with other institutions? **YES**

If yes, please list these organizations here-below:

Federal Foreign Office (AA)

Federal Ministry of Interior (BMI)

Federal Ministry for Economic Cooperation and Development (BMZ)

Federal Ministry of the Environment, Nature Conservation and Nuclear Safety (BMU)

Federal Ministry of Finances (BMF)

Federal Ministry of Education, Science, Research, and Technology (BMBF)

Federal Ministry of transport, building and housing (BMVBW)

Federal Ministry of Justice (BMJ)

Center for Disaster Management and Risk Reduction Technology (CEDIM)

Disaster Research Centre, CAU Kiel

GeoForschungZentrum Potsdam (GFZ)

Gesellschaft für technische Zusammenarbeit (GTZ)

International Commission for the Protection of the Rhine (ICPR)

TU Cottbus, Faculty of Hydrology and Water Management

Universität Bonn, Institute of Geography

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## ANNEX: REFERENCE GUIDE FOR PREPARATION OF NATIONAL INFORMATION

### Component 1 Political Commitment and Institutional Aspects

*Political commitment, strong institutions, and good governance are expected to elevate disaster risk reduction as a policy priority, allocate the necessary resources for it, enforce its implementation and assign accountability for failures, as well as facilitate participation from civil society to private sector. Due to its multi-disciplinary and multi-sectoral nature, disaster reduction falls into the agenda of many diverse institutions which, for effective implementation, requires clear assignment of roles and assumption of responsibilities as well as coordination of activities.*

**1.1-Are there national policy, strategy and legislation addressing disaster risk reduction?** If yes, please describe to what extent current national efforts and main priority areas of the policy, and mechanisms to enforce the implementation of the policy and legislation are applied (*and/or attach any relevant documentation*)

In the Federal Republic of Germany disaster protection is the responsibility of the Länder (states). The Federal Government provides additional resources which would be needed in case of a military conflict. These additional resources can also be mobilized for disaster response. Disaster response is organized by the Länder. Beside governmental institutions and authorities, non-governmental organisations (e.g. German Red Cross, Malteser Hilfsdienst a.o.) are integrated into the system as well as the fire brigades (run by the municipalities), rescue services and the "Federal Agency for Technical Relief".

Because of the European Union's new programmes of action for disaster protection and the terrorist attacks on September 11, 2001 in the USA, the Federal Government has begun an intensive evaluation of civil defence and disaster protection in Germany in close liaison with the Länder. A new framework concept was drawn up "For a new strategy for protecting the population", which was approved by the conference of Ministers of the Interior in spring 2002. Numerous projects, such as the setting up of a "Joint Federal and Inter-State Operations Center for Crisis Management" (Gemeinsames Melde- und Lagezentrum GMLZ), the setting up of the German Emergency Planning Information System (deNis) and of the "Federal Office for Civil Protection and Disaster Response" (Bundesamt für Bevölkerungsschutz und Katastrophenhilfe, BBK) signals a new approach by the Federal Government and the Länder towards joint planning for emergency provisions and advertising hazards. The basic elements of the new strategy include the introduction of essential information and planning instruments, such as risk mapping and risk assessment or new danger-oriented deployment concepts.

Disaster risk management involves different political areas and is consequently anchored in a number of laws.

After the devastating flood disaster along the river Elbe in 2002, the Federal Government adopted a Five-Point-Programme to improve preventive flood protection. An act to improve preventive flood control is the most important element in this strategy. The Artikelgesetz (a law that applies to several different laws) will adapt the various legal provisions relevant to flood protection at federal level to take into account aspects of flood prevention. Amendments will be made to the Federal Water Act (WHG), the Federal Building Code (BauGB), the Federal Regional Planning act (ROG), the Federal Waterway Act (WaStrG) and the Act on the German Meteorological Service (DWD). In future, there will be a nationwide requirement for the designation of flood zones on the basis of so-called "100-year flood levels". The Act will generally prohibit designation of housing developments and industrial estates in flood zones. The act has been adopted by the German Parliament (Deutscher Bundestag) on 02.07.2004.

**1.2-Is there a national body for multi-sectoral coordination and collaboration in disaster risk reduction, which includes ministries in charge of water resource management, agriculture/land use and planning, health, environment, education, development planning**

**and finance?** If yes, please give detailed information (name, structure and functions). *Attach any relevant documentation or indicate source of information.*

The Länder (states) have their own responsibilities for disaster risk reduction. The Federal Ministry of the Interior only takes over coordination in agreement with the Länder when a predefined disaster threshold has been exceeded. Since October 2002 the Joint Federal and Inter-State Operations Center for Crisis Management (Gemeinsames Melde- und Lagezentrum GMLZ) has been established at the Federal Office for Civil Protection and Disaster Response (Bundesamt für Bevölkerungsschutz und Katastrophenhilfe).

**1.3-Are there sectoral plans or initiatives that incorporate risk reduction concepts into each respective development area (such as water resource management, poverty alleviation, climate change adaptation, education and development planning)?** If yes, please indicate some examples and challenges / limitations encountered. If no, does your government have any plans for integrating disaster risk reduction into development sectors? If no, please also specify the major difficulties.

Yes. e.g.: flood protection and critical infrastructure protection

**1.4-Is disaster risk reduction incorporated into your national plan for the implementation of the UN Millennium Development Goals (MDGs), Poverty Reduction Strategy Paper (PRSP), National Adaptation Plans of Action, National Environmental Action Plans and WSSD (World Summit on Sustainable Development) Johannesburg Plan of Implementation?** If yes to any of these, who are the main contacts for these initiatives.

The programme of action 2015 – Germany's contribution to the global effort to eradicate poverty.

Main contact: Federal Ministry for Economic Cooperation and Development, BMZ (<http://www.bmz.de>).

**1.5-Does your country have building codes of practice and standards in place, which takes into account seismic risk?** If yes, since when. Which are the main difficulties in keeping with the compliances of the codes.

Now a standard has been introduced in all the Länder (states) of the Federal Republic of Germany regarding standards for earthquake-proof construction ("erdbebensicherem Bauen") (DIN 4149) to be applied for constructions in areas with seismic risks. The standard was basically introduced in 1981, and then the introduction as "recognised state-of-the-art" at different times in the different Länder. In North Rhine-Westphalia, for instance, it was not introduced until 1997. Before this there was only a general recommendation to apply this standard. Since 1998 this norm has been adapted to the standard of the EU.

The implementation of the standard has been really cautious and restrained. The contents of the standard are clear, there are no problems to verify the requests into practice, but not all civil engineers are educated extensively in the field of dynamics.

**1.6-Do you have an annual budget for disaster risk reduction?** If yes, is this commitment represented as part of the national budget or project based? Through which institution/s? If no, what other financing mechanisms for risk reduction initiatives are available?

Federal Foreign Office (Auswärtiges Amt) has a regular annual budget for disaster prevention projects.

Federal Ministry for Economic Cooperation and Development (Bundesministerium für wirtschaftliche Zusammenarbeit, BMZ): Funding of programmes on disaster reduction, especially a sector programme to incorporate risk reduction into development projects.

Ministry of the Interior (Bundesministerium des Innern, BMI): Funding of disaster preparedness structures.

Two institutions are mainly funding disaster prevention research: the Federal Ministry for Education and Research (Bundesministerium für Bildung und Forschung, BMBF) and the Deutsche Forschungsgemeinschaft, DFG.

**1.7-Are the private sector, civil society, NGOs, academia and media participating in disaster risk reduction efforts?** If yes, how? Indicate existing coordination or joint programming between government and civil society efforts in disaster risk reduction, or major difficulties or constraints for this to be effective.

Yes. e.g.

#### **German Committee for Disaster Reduction (DKKV)**

The DKKV is the national platform for disaster reduction within the International Strategy for Disaster Reduction (ISDR) as well as a contact to organisations and initiatives involved in disaster reduction. It is also a centre of expertise in all matters relating to national and international disaster reduction. The DKKV brings together all key players in disaster reduction. The committee has currently 39 voluntary members and about 20 long-term guest members from the areas of science, technology, development cooperation and disaster reduction, and from the political, business and media sectors. The DKKV has special strengths in the following areas:

Linking science (theory) and practice

Linking national and international aspects and initiatives

Linking public sector and private-sector structures

It supports

- Interdisciplinary research on disaster reduction
- Development of instruments for disaster reduction, as well as enshrinement of such instruments in other sectors and in the areas of policy and business.
- Dissemination, at all educational levels, of findings on disaster reduction.

The DKKV is financed predominantly by the Federal Foreign Office. It also receives various types of financing that is tied to specific projects and limited in duration and scope.

The DKKV office is in Bonn.

#### **Center for Disaster Management and Risk Reduction Technology (CEDIM)**

The goal of CEDIM, founded by the Fridericana University of Karlsruhe and the GeoForschungszentrum Potsdam (GFZ) is to link the scientific findings for risk analysis and disaster management. The network includes geo sciences and meteorology, engineering sciences, regional planning and computer sciences, economic and social sciences. The research currently focuses on dangers through floods, storms, heavy quakes, "man-made hazards" and space weather. In the first phase of the pilot applications methods and tools for risk mapping in Germany shall be developed and applied.

#### **Protection Commission at the Federal Ministry of the Interior (Schutzkommission beim Bundesminister des Innern)**

The protection commission advises the Federal Government on an honorary basis on scientific and scientific-technical matters regarding the protection of the civilian population. It is currently composed of 23 members and 24 long-term guest members, who are qualified experts from the areas of natural sciences and technology, medicine and social sciences.

#### **Radiation Protection Commission at the Federal Ministry of the Environment, Nature Conservation and Nuclear Safety**

The Commission provides advice on the protection against radiation to the Federal Ministry of the Environment, Nature Conservation and Nuclear Safety.

## Component 2 Risk Identification

*Identification of risks is a relatively well-defined area with a significant knowledge base on methods for disaster impact and hazard and vulnerability assessment. Systematic assessment of losses, social and economic impact of disasters, and particularly mapping of risks are fundamental to understand where to take action. Consideration of disaster risks in environmental impact assessments is still to become routine practice. Early warning is increasingly defined as a means to inform public and authorities on impending risks, hence essential for timely actions to reduce their impact.*

**2.1-Has your country carried out hazard mapping/assessment?** If yes, please describe for which hazards, when they were updated and for what geographical scale they exist. Do they include characteristics, impacts, historical data, multi-hazards approach? Which institutions are using the results of the hazard assessment? To whom are they available? (*attach any relevant documentation*)

Nationwide hazard mapping is only available for a few hazard types: for instance there is a rough hazard mapping coverage for seismic hazards and winds.

The German insurance industry has created a system to estimate the hazard of floods (ZÜRS).

IKSR-Atlas (<http://www.iksr.de/rheinatlas/start.pdf>)

Integrated danube project (<http://www.gwd.baden-wuerttemberg.de/riedlingen/projekte/idp.htm>)

In 2004 the Federal Office for Civil Protection and Disaster Response (Bundesamt für Bevölkerungsschutz und Katastrophenhilfe, BBK) started a project "Harmonized Hazard Assessment in the Federal States of Germany" (Bundeseinheitliche Gefährdungsabschätzung der Länder). This project is based on data about the main hazards in each state. The data catalogue includes all potential hazards. The data are based on state level and will be updated on demand. For most hazards, characteristics and effects are included in the data catalogue. The results of the hazard assessment will be available for the state authority itself and for the Federal Ministry.

**2.2-Has your country carried out vulnerability and capacity assessments?** If yes, please describe the methods used and major social, economic, physical, environmental, political and cultural factors considered in the assessment(s). Who are the main contacts for these assessments (*or attach any relevant documentation or contact information.*)

Some institutions (International Commission for the protection of the Rhine, German Research Network Natural Disasters, Federal Office for Civil Protection and Disaster Response) are working on vulnerability and capacity assessments, especially research organisations. see also 2.1

**2.3-Does your country have any mechanisms for risk monitoring and risk mapping?** If yes, who is responsible?

Risk monitoring and risk mapping facilities are established recently by the Federal Office for Civil Protection and Disaster Response (Bundesamt für Bevölkerungsschutz und Katastrophenhilfe, BBK). The German Emergency Planning Information System (deutsches Notfallvorsorge-Informationssystem, deNIS) contains both data about special resources (equipment) for disaster management and dangerous and critical infrastructures as dynamic monitoring data like seismic and meteorological activities. This system will be available soon both for the federal and the state level and for non-governmental relief organisations.

**2.4-Is there a systematic socio-economic and environmental impact and loss analysis in your country after each major disaster? If yes, are the results available?**

After each major disaster the operation of governmental and non-governmental institutions and organizations is evaluated by the Joint Federal and Inter-State Operations Center for Crisis Management (Gemeinsames Melde- und Lagezentrum von Bund und Ländern, GMLZ).

**2.5-Are there early warning systems in place? If yes, for what hazards and for what geographical scope. Do you have any example when the system was activated lately? Which are the main institutions involved? Please indicate any relevant lessons-learned from the use and public reaction to early warnings issued.**

At present the Federal Republic of Germany does not have a nationwide, networked early warning system, capable of providing information on all relevant disaster risks, although the necessary technical and scientific know-how is available and is to some extent already being used. By installing the "German emergency Information System" (deNis) in 2001/2002 the Federal Government took important steps towards setting up a multi-level national database aimed at collecting all relevant information for dangers and disasters. Since existing sub-systems are also to be networked via deNis, in its final stage this information network will be able to incorporate important characteristics of an early warning system. However, this requires close, reliable cooperation between public authorities of the Federal Government, the Länder (states), administrative districts and local authorities, as well as scientific institutions and those organisations involved in preventing dangers.

Extreme Weather Events (Storms, Heavy Rainfall, Extreme Heat, etc.): Germany's National Meteorological Service (Deutscher Wetterdienst, DWD) monitors the weather. The DWD issues warnings of weather occurrences that could become a danger for public safety. The service supports the states in carrying out their responsibilities with regard to disaster control and participates in duties within the framework of civil defence and civilian/military co-operation.

The warning management of the German Weather Service was recently improved (with 4 warning levels: Early warning – 48 to 120 hours, advance warning –12 to 48 hours, Weather warning and Storm warning - generally up to 12 hours before the event, as well as warning at rural district level.) Weather warning can be called up free of charge on the Internet.

Floods: The Länder (states) are responsible for flood warning. The warning systems are used only a short time in advance to avoid false alarm (6-72 hours). Most Länder (states) have their own flood central offices (Hochwasser-Zentralen), which apply monitoring systems, and most of them also have early warning systems in place. At federal level the state data are brought together and used for information and warnings (Bundesamt für Seeschifffahrt und Hydrographie: Wasserstandsvorhersage an Nord- und Ostseeküste; Wasser- und Schifffahrtsverwaltung des Bundes: Elektronisches Wasserstraßen-Informationssystem (ELWIS), und Wasserstraßen-Geoinformationssystem, Informationsportal und Geodateninfrastruktur (WAGIS); Bundesanstalt für Gewässerkunde).

Earthquakes: Early warning systems exist only for nuclear power plants.

Forest fires: The Global Fire Monitoring Center (GFMC) was established 1998 at the Max-Planck-Institute for Chemistry in Mainz/Freiburg. It monitors forest and vegetation fires. The early warning system uses remote sensing data and international reports.

International Cooperation: The Early Warning Platform of the International Strategy for Disaster Reduction is located in Bonn. The duty of the Early Warning Platform is to facilitate and coordinate the implementation of the international Early warning Programme. The Platform is funded by the Federal Foreign Office.

### Component 3 Knowledge Management

*Information management and communication, education and training, public awareness and research are all parts of improving and managing knowledge on disaster risks and their reduction. Inclusion of disaster reduction at all levels of education, effective public awareness and information campaigns, media involvement in advocacy and dissemination, availability of training for communities at risk and professional staff, and targeted research are the ingredients to support the knowledge base for effective disaster reduction.*

**3.1-Does your country have disaster risk information management systems (governmental and/or non-governmental)?** If yes, what kind of information on **disaster reduction** is available, how is it collected, how is the information disseminated and who are the main users? (indicate relevant sources of information, if applicable)

e.g.

German Emergency Planning Information System (deNis), (see annex)

Schutzdatenatlas (SDA) (see annex) University of Kiel: <http://www.kfs.uni-kiel.de>

Rapid Earthquake Information System. Informations about recent earthquakes worldwide. (Geoforschungszentrum Potsdam: <http://www.gfz-potsdam.de>)

HGF platform "Task Force Natural Disasters" communication and information platform for crisis. User from Science, Disaster Management, Politics.

Various flood warning systems.

**3.2-Are the academic and research communities in the country linked to national or local institutions dealing with disaster reduction?** If yes, please describe the mechanisms for information sharing and indicate any example of usefulness and effectiveness. Which are the main research and academic institutions dealing with disaster reduction related issues (please list, if available, and indicate how their research work is related to the country's disaster risk reduction needs.)

The Federal Ministry of Education and Research supports programs like the "German Research Network on Natural Disasters" and "Risk Management of Extreme Flood Events". The Federal Ministry also provides most of the funding for the Helmholtz Association of National Research Centres (HGF), which created the initiative "Concerted Action in Case of Disasters". The GeoForschungszentrum Potsdam (GFZ) plays an important role in this.

In addition, disaster management has been established recently as part of the HGF Research Network "Integrated Earth Observing Systems" with sub-programmes on Flood Information Systems, Coastal Disasters, Disaster Mitigation in Megacities, Monitoring of Fire and Volcano events, and Crisis Information Systems. The HGF platform "Task Force Natural Disasters" is currently being initiated as a communication and information platform for efficiently coordinating the inter-institutional and inter-departmental activities in this field and for providing informations in the case of crisis.

Furthermore, cooperation between HGF centres and universities is supported. One example is the Centre for Disaster Management and Risk Reduction Technologies (CEDIM), which was founded in December 2002 by GFZ Potsdam and the University of Karlsruhe. It includes a user oriented common programme of research and training on risk reduction technologies. As a first step in this cooperation, a set of comprehensive risk maps for Germany is being developed.

Further programs are "Disaster Resistant Construction" at the University of Braunschweig, and "Disaster Management" at the University of Karlsruhe.

The KFS (Katastrophenforschungsstelle, CAU Kiel) is linked with GAUSS, Gesellschaft für angewandten Umweltschutz und Sicherheit im Seeverkehr, Bremen, and the Academy of the German Red Cross, to cooperate in the field of Disaster Management training Courses, Safety & Security Training in the field of traffic, transport and supply chains.

**3.3-Are there educational programmes related to disaster risk reduction in your public school system?** If yes, for what age-range? Do you have any educational material developed to support the teachers in this area? (*please attach any relevant documentation*)

Educational programmes exist in the field of fire protection education and first aid for primary school children.

**3.4-Are there any training programmes available?** If yes, please list (if available indicate scope and target audiences of the courses). Do you have any indication on how these courses have been useful to change any practices at local or national scale?

e.g.:

Post-Graduated Master Degree “Disaster Management and Civil Protection “ by the University of Bonn in cooperation with the Academy for Crisis Management, Emergency Planning and Civil Protection (Akademie für Krisenmanagement, Notfallplanung und Zivilschutz AKNZ).

This post- graduate master course is a holistic approach, considering natural sciences, social sciences and best practices, to qualify a coordinator or manager for sustainable disaster prevention and management.([www.giub.uni-bonn.de/kavoma](http://www.giub.uni-bonn.de/kavoma))

Masters Course “Safety and Risk Reduction” by the Otto-von-Guericke-Universit, Magdeburg, Faculty of Process and Systems Engineering.([www.uni-magdeburg.de/fvst/sga/](http://www.uni-magdeburg.de/fvst/sga/))

Master Study: „Disaster Management” by the ”Center for Disaster Risk Reduction Technology (CEDIM)” of the University of Karlsruhe (2005).

Master Course “Humanitarian Aid”, University of Bochum ([www.ruhr-uni-bochum.de/ifhv/noha](http://www.ruhr-uni-bochum.de/ifhv/noha)).

Relief organisations, fire brigades, organisations responsible for social insurance against occupational accidents offer programmes, for instance in first aid, life-saving immediate measures, fire protection education and information, specially tailored to different target groups (courses for pre-school children and primary school children, in companies, for people applying for driving licences).

In addition, at the Academy for Crisis Management, Emergency Planning and Civil Protection (Akademie für Krisenmanagement, Notfallplanung und Zivilschutz - AKNZ) trainers and multipliers of the organisations cooperating in civil defence and disaster risk reduction from towns and local authorities and companies and government agencies are trained for self-help issues.

**3.5-What kind of traditional indigenous knowledge and wisdom is used in disaster-related practices or training programmes on disaster risk reduction in your country?**

*n.a.*

**3.6-Do you have any national public awareness programmes or campaigns on disaster risk reduction?** If available, who are the main players for raising public awareness? How are the mass media and schools involved? Who are the targeted groups and how do you evaluate the programmes?

The German Committee for Disaster Reduction (DKKV) as national platform for disaster reduction celebrates annually the International Disaster Reduction Day of the United Nations. For this event a one day meeting of organisations being active in disaster reduction is organised in Germany. In 2003 the event took place at the trade fare “acqua alta” in Munich and dealt with different aspects of disaster reduction related to floods.

## Component 4 Risk Management Applications/Instruments

*For effective disaster risk reduction, synergies are needed between sustainable development and disaster risk management practices. Moving from analyzing of and knowing about risks to taking concrete actions to reduce their impacts is a demanding step. Ideas and practices coming from different disciplinary areas will complement what is already practiced in disaster risk management. For example, instruments for risk management have proliferated especially with the recognition of environmental management, poverty reduction and financial management.*

*Environmental and natural resource management is among the best-known applications to reduce flood risks, control landslides (through reforestation) and control droughts (through ecosystem conservation). Physical and technical measures, such as flood control techniques, soil conservation practices, retrofitting of buildings or land use planning, are effective in hazard control. Financial instruments in the form of insurance, calamity funds, catastrophe bonds are useful to lessen the impact of disasters.*

**4.1- Is there any good examples of linking environmental management and risk reduction practices in your country** (key areas of environmental management may include coastal zone, wetland and watershed management, reforestation and agricultural practices, amongst others). If yes, please indicate in what areas. (Attach any relevant documentation ore references)

### Natural Flood Protection

Natural flood protection implies the preservation of natural flood plains, lakes and rivers, infiltration areas, or the re-naturalisation of wetland areas which have been changed by man.

Retention areas were prepared along the upper reaches of some major rivers like the Rhine after heavy floods occurred in the past. These areas can be flooded early to avoid major damages in areas downstream.

The flood retention areas along the Rhine are managed at two levels: 1. local rain water retention: local level (administrative counties/ county boroughs); 2. regional retention: State level (Ministry of Transport and Environment. In the event of flooding, at level 1 rain water retention areas can be opened with the Mayor's authority. For level 2 regional retention areas, special directives describe the procedure in the event that a retention zone is flooded. For example, the directive for the Rhine is based on an international co-operation agreement between Baden-Württemberg and the Alsace (France). The final decision is made by the State Ministry of Transport and Environment.

Following a weather forecast by the DWD (German Weather Service) predicting heavy rainfall, the data from the national computation centre is passed on to the relevant State forecast centre.

During the Elbe flood in 2002 the Havel Flood polders reduced the peak level by more than half a meter on the downstream River Elbe. On the other side, a real lesson learned was the necessity for flood-adapted agriculture in the polder areas to avoid negative influences of oxygen consumption caused by biodegradation on the aquatic fauna.

Mountains: stabilisation of slopes by vegetation (Reforestation)

Law on the protection of the soil to stop soil degradation and to avoid creeping disasters.

**4.2- Are financial instruments utilised in your country as a measure to reduce the impact of disasters (e.g. insurance/reinsurance, calamity funds, catastrophe bonds, micro-credit finance, community funds, etc.)?** If yes, please describe what these instruments are and when they were established, who manages them and who are eligible to them.

Insurance for damages caused by natural hazards be included in the common household contents insurance or building insurance. Whereas fire and storm are always included, other hazards can be included on a voluntary basis. Areas being considered as high-risk zones of floods, cannot be insured against this hazard. Negotiations concerning a compulsory insurance have stopped without an agreement. For agriculture there is a hailstorm insurance available.

After the Elbe flood, the Federal Government installed the "Fonds Aufbauhilfen". Besides, there were some other financial instruments available to reduce the impact for the states, the local authority, the population and business companies (Hochwasser-Hilfsfond at the

Deutschen Ausgleichsbank, Programm zur Wiederherstellung der Infrastruktur in den Gemeinden [Programme for restoring the infrastructure in the local communities], special programme "Flooding" in with the joint task of "Verbesserung der Agrarstruktur und des Küstenschutzes" [Improving the Agricultural Structure and Protection of the Coastline], tax reductions a.o.).

Some states established special funds for disaster protection, like in Bavaria.

**4.3-Please identify specific examples of technical measures or programmes on disaster risk reduction that have been carried out in your country (see below, case studies).**

*With regard to technical measures several examples can be given. Retention areas were created at river sides. Dams have been improved. Municipalities equipped themselves with mobile flood protection systems. The system of flood warnings was standardised between different Länder (states) and with neighbouring countries. For more information on flood protection and warning of the river Rhine visit the website [www.iksr.de](http://www.iksr.de) (International Commission for the Protection of the Rhine). The German Weather service improved the forecasting and warning capacities. (You can find a presentation of the German Weather Service on his warning system by visiting the EWC II website: [www.ewc2.org](http://www.ewc2.org))*

## **Component 5 Preparedness and Contingency Planning**

*Preparedness and emergency management has been used as a means for reducing life losses from direct and indirect effects of disasters. A well-prepared system is expected to be effectively informed by early warning, endowed with regularly rehearsed national and local contingency and evacuation plans, fitted with communications and coordination systems, as well as adequate logistical infrastructures and emergency funds. Local-level preparedness, particularly at community level, including training, deserves special attention as the most effective way of reducing life and livelihood losses.*

**5.1- Do you have disaster contingency plans in place? Are they prepared for both national and community levels?** If yes, please describe their main components, who is responsible for activating the plan(s)? Are the plan(s) updated on annual basis? Have you ever used the contingency plan(s) that was or were developed? If yes, what was the result?

There are disaster contingency plans in place at Länder (states) level. Each Land has its own law and its own plan. The plan of Lower Saxony, for example, contains disaster relevant contact persons, materials, capacity in hospitals and assignment of relief units. Specific plans for special disaster situations like storm surges supplement the normal disaster contingency plans. Baden-Wuerttemberg, for example, demands from the local authorities plans for supporting the state disaster management.

**5.2- Has your government established emergency funds for disaster response and are there national or community storage facilities for emergency relief items – mainly food, medicine, tents/shelters?** If yes, please provide some details.

The Federal Government maintains a federal grain reserve (Bundesreserve Getreide) and emergency wells (Notbrunnen).

The Federal Government supports financially storage facilities for relief items by non governmental organisations (e.g. German Red Cross). Medical facilities are provided by the German Army (Bundeswehr).

The federal agency for technical relief (THW) already mentioned under 1.1 has about 40.000 trained volunteers all over Germany prepared to assist in disaster and crisis situations (there are more than 76.000 volunteers altogether, for detailed information see file attached), nationally and internationally. There are 665 community offices run by volunteers with equipment such as pumps, generators, water purification units and all sorts of highly specialized tools. Furthermore, for rapid deployment to major disaster sites there are rapid deployment teams for search and rescue and water supply.

Generally, fields of special expertise are:

1. Drinking Water Supply
2. Infrastructure Unit for the construction of refugee camps
3. Power supply / Emergency power supply
4. Technical Support  
Proposed achievements: Transport, Water-Treatment, Technical- Consultant, Power-Generation, Mechanical Support Unit (vehicle), Excavation Works, Storage etc.  
For additional information see Annex 3.

**5.3- Who is responsible for the coordination of disaster response preparedness and is the coordination body equipped with enough human and financial resources for the job? Please comment on the effectiveness of the coordination work done so far?**

When required at a national level an inter-ministerial (interdisciplinary) coordination group can be summoned under the chairmanship of the Federal Ministry of the Interior (BMI), which works out recommendations for action and promotes the rapid coordination process between the Länder (states) in situations where the resources of a Land are unable to cope. Since October 2002, under the authority of the Ministry of the Interior at the Federal Office for Civil Protection and Disaster Response (Bundesamt für Bevölkerungsschutz und Katastrophenhilfe) there has been a Joint Federal and Inter-State Operations Center for Crisis Management (GMLZ) for providing support in managing resource bottlenecks and in information management, which monitors the situation in Germany round the clock and reacts as a reporting centre. The GMLZ has already successfully proved its worth, in particular in the wake of the resource management in the framework of the common procedure of the European Union for the mutual support of the Member States.

**Component 6 Call for good practices in disaster risk management**

Based on the above analysis and information provided, please provide at least two examples of any successful implementation of disaster reduction activities in your country (could be of local, national or regional scale); any project or community based experience, national policy, interaction between sectors, etc., would be welcome. Provide maximum one page on each example, indicating area of work, institutions and actors involved, duration, impact of the activities, lessons-learnt and if the example have been replicated. You may also kindly direct us to relevant web-based information/organization.

1. German Emergency Planning Information System (deNIS) and the management system SDA (Schutzdatenatlas) see annex 1.
2. International Commission for the Protection of the Rhine. See annex 2.

**Component 7 Priorities you want addressed at World Conference on Disaster Reduction**

What do you think are the priority topics to be agreed upon at the World Conference to enhance and strengthen national policy and practice to reduce risk and vulnerability to natural and technological hazards? Please list any other thematic areas or specific topics of discussion that you consider of importance to increase the effectiveness of disaster risk reduction for your country.

Please also indicate any particular experience or project that your country would like to exhibit or present at the Conference.

*THEMES TO BE TAKEN UP IN THE YOKOHAMA REVIEW PROCESS*

Proposal 1: International Disaster Reduction Regime

Proposal 2: Good Governance and Disaster Risk Management

- Proposal 3: Economic Efficiency and Impact Monitoring of Disaster Risk Management
- Proposal 4: Review of the Yokohama Strategy and Plan of Action; National Platforms within ISDR
- Proposal 5: Future Risks: Disaster Risk Assessment – Disaster Risk Development
- Proposal 6: Enhance Early Warning Systems  
(Paper to be prepared by Early Warning Platform)
- Proposal 7: Data Integration, exchange and mining relevant to disaster relief and reduction (complementary to informational rights modern societies need renewed strategies of data integration and processing to identify risk and vulnerability on a social level)
- Proposal 8: Vulnerability of modern societies towards natural disasters – the impact on critical infrastructures

**Additional item of information:** Please describe your Government's current international policy on risk reduction, including within development or other donor agencies as well trans-border agreements or regional cooperation. Attach any relevant information or sources.

Risk reduction is part of the German Government's bi- and multilateral development cooperation (Bundesministerium für Wirtschaftliche Zusammenarbeit und Entwicklung, BMZ). Risk reduction has been the focus of advisory processes in high risk countries and preventive activities have been included in reconstruction programmes after disasters. Risk reduction is also increasingly considered in programmes concerned with the sustainable management of natural resources and the capacity development in favour of local governance in high risk areas (Deutsche Gesellschaft für Technische Zusammenarbeit, GTZ, and Bundesanstalt für Geowissenschaften und Rohstoffe, BGR). Furthermore, the Federal Foreign Office (Auswärtiges Amt) is financing short-term projects for risk reduction which are implemented by GTZ and BGR as well as by NGO such as InWEnt, DWHH or universities and is funding DKKV and specific programmes within ISDR. The further strengthening of risk reduction activities in bilateral cooperation is intended. Cooperation is fostered with other bilateral and multilateral organizations (e.g. IDB).

At the international level, the German Government is especially committed to the improvement of Early Warning Systems. Therefore, it chaired the International Early Warning Conferences in Potsdam (1998) and Bonn (2003) and is hosting and financing the new UN Early Warning Platform in Bonn.

The German Agency for Technical Relief (funded by the Ministry of Interior/BMI) also assists in the field of risk reduction and preparedness by offering technical counsel to communities; sending specialists to foreign countries to assist governments in implementing similar systems of civil protection like in Germany; providing search and rescue knowledge, a.o.

## Annex 1

### deNIS – German Emergency Planning Information System and the Disaster Management System SDA (Schutzdatenatlas)

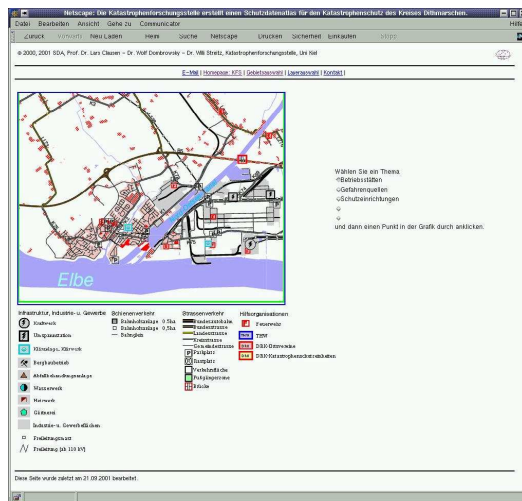
The Federal Ministry of the Interior has had an Information and Data Management System (deNIS II) developed, which is intended to provide a suitable IT basis for the integration heterogeneous data for effective and efficient planning, as well as for the implementation of relief operations in large-scale hazardous situations in the event of a disaster. The deNIS II developed by PRO DV is a knowledge management system, which supports the coordination work of decision-makers in large-scale hazardous situations. It is linked to the joint location and reporting centre (GMLZ) of the National Government and the governments of the *Länder*, and is available to a closed group of users, which consists of 40 to 50 institutional user groups. It is accessed via a browser interface, which can be used for accessing the core element of the system, a centralised database. It is intended for use in effective and efficient planning, as well as for the implementation of relief operations in large-scale hazardous situations in the event of a disaster and for supporting the responsible decision-makers for preventing disasters.

The disaster research centre (KFS) of the Christian-Albrechts University (CAU) of Kiel has also developed a "Schutzdatenatlas" (SDA) on behalf of the Federal Ministry of the Interior, which acts as a decision support system (DSS) in individual cases and also enables the organisation of a modern disaster management. This "Protection Data Atlas" (SDA) is a disaster management system, which uses geographical information systems (GIS) on the Internet (and intranet) to provide a precise – i.e. geo-referenced sphere of action – for which, in which and with which the measures for disaster prevention can be planned, implemented and further developed right down to street levels and sites and property (field maps of the official topographical cadastre ATKIS). The SDA is based on "open source code"; and is integrated into a modern eGovernment, which not only has the protected internal functions but also acts as an information and communication medium for the public. This not only

guarantees a disaster management system, which remains available to the user from the first mouse click, but also serves as a democratic, open information system for Europe's citizens. The user can use his/her own data to carry out a hazard analysis of his/her community or company or carry out analyses of every other spatial element, draw up and maintain cadastres, implement a vulnerability cadastre and register all protection potential. At the same time the public can be warned, informed and advised, and an interactive citizen-friendly protection policy can be enabled. The data on the protection potential can be used to support real operations, for practising on the computer ('electronic sandpits') and for testing preventative planning (recording hazard scenarios). This means Integrative Hazard Management via intranet and Internet: Vulnerability analysis, public hazard prevention, company hazard prevention, crisis and risk communication, public information, documentation of actual situation, spatial and regional planning, prevention, practice and training are made possible. The advantage of the system is its compatibility with existing systems, data integration, multiple use of recorded data, uniform basis (ATKIS), instant availability of all information, preview function, deployment support and simulation of complex procedures. Here the protection data atlas already complies with many principles of the EU initiative INSPIRE.

Together SDA and deNIS II could provide functionalities that go way beyond existing safety and security information systems. Such a system, already developed with a view to the requirements of the expanded EU, would be trailblazing there. In this way one would have prepared what the EU will offer its Member States in this area and already be in complete control.

(W.Streitz, Katastrophenforschungsstelle Kiel)



## Annex 2

The International Commission for the Protection of the Rhine, the Action Plan on Floods and the Implementation of the Action Plan on Floods by 2000

### **International Commission for the Protection of the Rhine (ICPR)**

#### **Targets of the Commission**

Sustainable development of the entire Rhine ecosystem.

Guarantee the use of Rhine water for drinking water production.

Improvement of the sediment quality in order to enable the use or disposal of dredged material without causing environmental harm.

Overall flood prevention and environmentally sound flood protection.

Improvement of the North Sea quality in accordance with other measures aimed at the protection of this marine area.

#### **Working method of the Commission**

Ministers' decisions => precise tasks for the Commission and the Member States.

Implementation of the decisions taken by the Commission is the responsibility of the Member States; decisions taken by the Commission are not legally binding.

Preparation and elaboration of Commission's decisions in 3 permanent working groups.

Specific tasks are dealt with by expert groups.

Composition of the groups: national senior officials and experts.

A small secretariat supports the work of the Commission.

#### **Contracting parties**

Switzerland, Germany, European Community, France, Luxembourg, Netherlands, European Community

### **Action Plan on Floods**

On 22 January 1998, the 12th Conference of Rhine Ministers adopted the "Action Plan on Floods" in Rotterdam, implying expenses of up to 12 billion EURO. This Action Plan aimed at the improvement of precautionary flood protection will be implemented within the next twenty years.

#### **Targets of the Action Plan on Floods**

- **reduce damage risks** – no increase of damage risks until 2000, a 10 % reduction by 2005 and a 25 % reduction by 2020.
- **reduce flood water levels** – reduce extreme flood peaks downstream the impounded stretch of the river (about downstream of Baden-Baden) by up to 30 cm by 2005 and by up to 70 cm by 2020.
- **increase flood awareness** – increase flood awareness by drawing up flood risk maps for 50 % of the inundation areas and of the flood prone areas by 2000 and for 100 % of these areas by 2005.
- **improve the flood announcement system** – short term improvement of the flood announcement systems due to international co-operation. Prolong forecasting periods by 50 % by 2000 and by 100 % by 2005.

On 22 January 1998, the Rhine-Ministers explicitly asked all those responsible to implement the necessary flood preventing measures with priority, even in times of financial bottlenecks.

#### **Implementation of the Action Plan on Floods by 2000**

In the meantime, all Rhine bordering countries have protected a large part of the inundation areas by law and with respect to spatial planning. Thus flood damage risks may be influenced by law. Since these legal instruments only become effective with some delay it must be assumed that large parts of the development areas already at the planning stage at the time of the last flood – in particular those behind dikes or other flood protection facilities – have in the meantime been covered by buildings without taking into account their flood compatibility and that assets in the inundation areas have been increased after local flood protection facilities were raised. Therefore, the target of the Action Plan on Floods "not to increase flood damage risks by 2000" has not been reached. Information and flood awareness must be further increased in order to encourage preventive construction and private prevention of citizens at risk of flooding.

Measures aimed at improving **water retention** along the Rhine and in its catchment have been implemented or initiated in all Rhine bordering states. The relocation of dikes, creation of technical retention facilities along the Rhine, renaturation of streams and regaining of former inundation areas (give back more room to the water bodies), the promotion of extensive farming, nature development, afforestation, rainwater seepage and the creation of smaller technical flood retention facilities effective on a local scale in the catchment range among these measures. Mostly they simultaneously encourage groundwater recharge and the ecological enhancement of the Rhine system. This is particularly true of the relocation of dikes, renaturation and the promotion of extensive farming.

In the meantime, the performance **target** for the year **2000** (5 cm reduction of water level downstream the impounded stretch of the Upper Rhine) has largely been reached due to the measures implemented. Since 1995 10 million m<sup>3</sup> of **retention areas** have been created with the help of technical measures, a further 32 million m<sup>3</sup> of retention facilities are under construction and will probably be operational in 2001. 2,2 km<sup>2</sup> of inundation area have been created along the Rhine, 15 km<sup>2</sup> are currently being created and numerous other water retention activities have been carried through in the entire catchment area. Once the measures planned for 2001 will have been implemented, the targeted 5 cm reduction of the water level will be achieved. At the same time these measures improve the ecological function of the Rhine system.

Today nearly 100 % of the **inundation areas** along the Rhine and about 40 % of the inundation areas in the Rhine catchment are delimited. By the end of 2001 the ICPR published maps on flood danger and risk for all inundation areas and flood prone areas in the lowlands of the Rhine on a scale 1:100.000 (new Atlas of the Rhine). Thus, as far as the main stream is concerned, the target set for 2005 has already been reached in 2001. Risk maps are a means of visualising flood danger. A lot of work has been done to convince people of the necessity of flood protection, for example in workshops, congresses, exhibitions on flood-related issues and local discussions. The population at risk must be aware of the flood danger if it is to take countermeasures. Different non governmental organisations actively support the work targeted at increasing public awareness for matters of flood prevention and ecological enhancement.

**Timely warning** is an important part of flood prevention. It has been possible to reach the target of prolonging forecasting periods by 50 % between 1995 and 2000 and to maintain the current level of reliability. Formerly the forecasting period for the High Rhine covered 12 hours, that for the Upper, Middle and Lower Rhine covered 24 hours, for the Rhine delta (downstream of Lobith) 48 hours. Today forecasting periods for the High Rhine cover 18 hours, for the Upper, Middle and lower Rhine 36 hours and for the Rhine delta downstream of Lobith 72 hours.

**To sum up** it can be established that

- In many places flood awareness has risen,
- Among others due to increased EU subventions (IRMA) the implementation of the Action Plan is largely developing according to schedule.
- Work aimed at increasing public awareness for measures within preventive construction and at promoting private prevention of citizens at risk of flooding must be continued with a view to minimizing damage
- Efforts in the field of financing and organisation targeted at improving water retention must continue.
- Expenditures are developing as planned.

(Marc Braun, International Commission for the Protection of the Rhine ICPR)

## Federal Government Policy On Disaster Reduction

01 September 2004

The **Federal Foreign Office** is committed to promoting awareness of the issue of disaster reduction and practical implementation of research findings in strategies and measures.

To this end it sponsors activities at international level, such as the work of the International Strategy for Disaster Reduction (ISDR) and the German Committee for Disaster Reduction within the International Strategy for Disaster Reduction. The Federal Foreign Office also strongly advocates the improvement of early warning systems and has already organized two international conferences on this issue (International Early Warning Conference – EWC – in Potsdam in 1998 and EWC-II in Bonn in 2003). Furthermore, it proposed the creation of a UN early warning platform, which has already commenced operations with Foreign Office funding. Currently the Federal Government is actively involved in preparations for the World Conference on Disaster Reduction (WCDR).

At bilateral level the Federal Foreign Office finances numerous individual disaster reduction projects in developing countries.

One example is a project in Afghanistan run by InWEnt. Its goal is to establish a national disaster reduction network to be incorporated into international structures, which in the medium term should be in a position to mitigate the effects of extreme natural disasters. Another project targets measures to improve groundwater protection in the Kabul basin. The Federal Institute for Geosciences and Natural Resources is responsible for its implementation.

In the Indian State of West Bengal the Federal Foreign Office is supporting a project for community-oriented disaster reduction run by Caritas. This project fosters self-help groups focusing on disaster reduction in 800 communities.

In Nicaragua the local disaster reduction structures of rural communities in the León Department are receiving assistance for training and equipment through a Workers' Samaritan Federation project.

A German Agro Action project in the Zeravshan Valley in Tajikistan is pursuing a similar goal. Here, the population is actively involved in implementing preventive construction measures in the local infrastructure.

In Colombia the Federal Foreign Office is sponsoring a project to develop participative methods of preventing landslides and mudslides. The Deutsche Gesellschaft für Technische Zusammenarbeit GmbH (German Agency for Technical Cooperation) is the implementing organization.

One example of a transnational project supported by the Federal Foreign Office is the establishment of a regional network in the SADC states. The first phase of the project, carried out by InWEnt, commenced in Mozambique and focused on human resources development in disaster management. Further-training measures provided the local authority responsible for this area with so much support that it was possible to erect a disaster reduction network extending right down to community level. These measures are essential for Mozambique, as the nine largest rivers flowing through it have their sources in neighbouring countries. This project was presented at the World Summit on Sustainable Development (WSSD) in Johannesburg.

The experiences from the first phase of the project are now being applied to the entire SADC region in a second phase through the creation of a regional network and closer transnational cooperation.

Disaster reduction is also one aspect of the Federal Government's bilateral and multilateral development cooperation, coordinated by the **Federal Ministry for Economic Cooperation and Development**. Disasters directly and indirectly destroy the various laborious steps towards progress taken by developing countries and the accompanying reconstruction work performed by the Ministry. To lower this risk, development cooperation attaches great importance to the concept of prevention. For several years the Federal Ministry for Economic Cooperation and Development has taken this factor into account in financial and technical cooperation projects, run jointly with the countries themselves, and intends to boost awareness of the issue by devoting equal or even more attention to it in the future.

Since 1997 the German Agency for Technical Cooperation has been conducting a series of projects on behalf of the Federal Ministry for Economic Cooperation and Development. They are designed to bolster the efforts to establish disaster reduction as a local responsibility in developing countries, particularly in Central America and the Andes region. The support focuses on strengthening local resources, imparting relevant know-how to all relevant players, building a disaster risk management system and integrating local systems into the national network. Good governance across the board and at local level is vital for successful disaster management.

Disaster reduction in the context of population protection and disaster relief assistance precautions is the responsibility of the **Federal Ministry of the Interior**.

Germany has recourse to a highly effective national emergency planning and hazard control system to cope with major catastrophes. Here, the Federation, responsible for civil protection, and the Länder, responsible for disaster relief, cooperate closely and effectively and interact with relief organizations and fire brigades.

The national emergency response system is not only efficient, but also expandable and innovative. It can adapt to new threats, as has been demonstrated recently by the formation of the new Federal Office of Civil Protection and Disaster Response, which commenced operations on 1 May 2004. With this body the Federal Government is making a clear political statement on the higher profile it is giving to civil protection and disaster relief among the various security tasks in Germany. The new Federal Office is a response to demands prompted by the events of 11 September 2001 and the flooding in summer 2002.

Volunteerism is the backbone and foundation of the national emergency response system, comprising more than 1.2 million active members of voluntary fire brigades, and five voluntary organizations – the German Red Cross, the Workers' Samaritan Federation Germany, the Deutsche Lebens-Rettungs-Gesellschaft (German Life Saving Federation), the Johanniter Emergency Service and Malteser Germany – with another half-million volunteers. At federal level, the Federal Agency for Technical Relief contributes a further 77,000 volunteers to this system.

The German emergency response system works. It can handle even unusual threat and disaster scenarios, as the flooding of the Danube and the Elbe in August 2002 demonstrated.

These flood disasters prompted the crucial question of how appropriate the structure of the dual national disaster prevention system in Germany now is, in which civil protection falls under the competence of the Federation as an offshoot of its defence mission, and "peacetime" disaster relief is the task and responsibility of the Länder.

The Federation and the Länder therefore adopted a pragmatic approach and developed a new conceptual framework with three main goals:

1. Greater dovetailing of existing federal and regional relief resources, notably the Federal Agency for Technical Relief, and local fire brigades and relief organizations;
2. Creation of new coordination tools for more effective interaction between the Federation and the Länder, particularly in the area of information management and for identifying critical resources;
3. Development, training and implementation of a common management ethos.

Several of these activities, including the Federal Ministry of the Interior's contribution under the New Strategy, are presented below.

Since autumn 2002 a new tool for federal and regional coordination of large-scale threat scenarios has been in place – the German Joint Information and Situation Centre for the Federation and the Länder. This is one of the most important products of the summer 2002 flood disaster. It is primarily a disposition centre for helpers, as well as a base for identifying and allocating relief materials, from technical equipment to sandbags.

The German Joint Information and Situation Centre chiefly draws on the German Emergency Preparedness Information System deNIS. The core task of this new database is the comprehensive networking, processing and provision of information for the management of major disasters. The Federation, Länder, municipalities and organizations have access to a wealth of valuable information, which can now be intelligently pooled.

deNIS supplies facts on the disaster itself, on hazard control options and, crucially, on the position of endangered facilities near the disaster zone, such as refineries and tank farms. deNIS also contains information on critical resources, i.e. what federal or regional resources are located near the site of the disaster.

It focuses on the capacity of the Federal Agency for Technical Relief, the fire brigades and relief organizations, the Bundeswehr and the Federal Border Police. However, deNIS also contains all other vital information for crisis management and large-scale disaster control. This includes up-to-date reports from the German Meteorological Service, for example.

An initial deNIS version was made available on line in May 2002 as a public information portal. Here, people can call up a wide range of important information on population protection issues. This includes background information on civil protection and disaster relief, as well as guidelines on preventive measures and behaviour in dangerous situations.

An essential aspect of any disaster relief is the ability to give appropriate, but above all rapid warning of imminent danger to the entire population. On 15 October 2001 a new, satellite-based federal warning system became operational. Official warnings can be transmitted via satellite in seconds through both public and private broadcasting corporations.

However, "wake-up" warning methods are also needed. A series of pilot projects and field trials is therefore under way to examine specifically whether the wake-up effect can be achieved via radio (automatic switch-on function), mobile communications, landline telephone and/or radio-controlled alarm clock, and if so, to what extent.

The flooding in summer 2002 categorically confirmed one important point. Professional crisis management must be learned, and, most importantly, must be practised frequently. To this end the Federal Ministry of the Interior has established the Federal Office of Civil Protection and Disaster Response with its Academy for Crisis Management, Emergency Planning and Civil Protection. The aim is to develop the Academy into a competence centre for joint federal and regional crisis management, a forum for academic exchange and a meeting point and idea pool for German and foreign experts.

However, all population protection strategies are inadequate unless citizens become better equipped to take precautions and protect themselves in the event of an emergency. For this reason sponsorship of public first aid training resumed in autumn 2002.

The New Strategy agreed between the Federation and the Länder has also had an important structural consequence. Federal facilities and services in the area of civil protection and disaster relief are now pooled and managed centrally at the new Federal Office of Civil Protection and Disaster Response. This reorganization thus emphasizes the importance of civil population protection as a pillar of the national security system.

The new office with its vast portfolio is conceived as a federal service centre for authorities at all administrative levels as well as for organizations and institutions engaged in population protection. It will span all areas and departments of preventive security and civil defence and link them to form an effective protection system for the population and its sources of livelihood.

The German term "Bevölkerungsschutz" ("population protection") underlines this comprehensive approach. The traditional expression "Zivilschutz" ("civil protection"), a narrower term related to the defence mission, was deliberately abandoned in the German title.

The other part of the name, "disaster relief", reflects another new priority in the Federation's duty to protect the public – its capacity to support the Länder in crisis management in any large-scale threat scenario, specifically by providing information, coordination, critical resource management and crisis management training.

Part of the Federal Ministry of the Interior's disaster reduction policy involves the provision of around 9460 emergency vehicles (target) to support disaster relief in the Länder.

The traditional responsibilities and competences of the Länder remain unaffected. The Länder naturally remain in charge of operational crisis management.

The Federal Agency for Technical Relief is another key component of the New Strategy, alongside the Office. In effect this agency is the Federal Ministry of the Interior's own emergency organization, with around 6500 vehicles (target) for immediate disaster relief at home and abroad. The agency's close involvement in local hazard control and its cooperation in a spirit of partnership with relief organizations, coupled with the transregional flexibility of a federal authority, make it a key player in the entire system.

Protection of the civilian population is not merely a domestic issue. Major disasters do not stop at national borders. The international dimension is becoming increasingly important, which above all calls for population protection on a European scale.

Within the EU significant measures to improve population protection, backed by Germany, have been in place for some time. These include:

- the EU Community mechanism to facilitate reinforced cooperation in civil protection assistance interventions in the event of major emergencies (since 1 January 2002); and
- the so-called CBRN Programme to Improve Cooperation in the EU for Preventing and Limiting the Consequences of Chemical, Biological, Radiological or Nuclear Terrorist Threats (since 20 December 2002).

Details of both projects still have to be implemented. The EU Community mechanism, however, already proved itself in emergencies last year during the forest fires in southern Europe and the flooding in France. It basically ensures swift mobilization of national relief resources to intervene in major disasters in neighbouring countries. From the German side interventions within the Community mechanism take place via the Federal Agency for Technical Relief but may also involve fire brigades, relief organizations and the Federal Border Police.

The Federal Agency for Technical Relief, funded by the Ministry of the Interior, also assists in the field of risk reduction and planning by offering technical advice to communities, sending specialists to foreign countries to assist governments in implementing systems of civil protection similar to those in Germany and providing search and rescue information, among other things.

The German emergency planning and response system would be inconceivable without the commitment of so many volunteers. This voluntary work represents a significant contribution to security.

Encouraging voluntary work is therefore a key political concern of the Ministry of the Interior and the entire Federal Government. A Study Commission from the German Bundestag investigated the Future of Civic Activities during the last legislative term. Taking this as a basis, the Government Commission Impetus For Civil Society has developed opportunities for voluntary service and non-military national service in Germany.

In principle, this involves developing a new form of "volunteer services" which could also be mobilized for civil protection and disaster relief if necessary. This is reinforced by the Initiative to Reduce Bureaucracy launched by the Federal Government, which expressly includes support for volunteerism and civil society. The Federal Agency for Technical Relief, for example, is running a pilot project, Promoting Voluntary Work Within the Federal Agency for Technical Relief, this year.

Overall, the Federal Government's achievements in this area are positive. The Federal Agency for Technical Relief and the new Federal Office of Civil Protection and Disaster Response, together with the Federal Border Police and the Bundeswehr, constitute its contribution to preventive security for Germany's citizens.

# TECHNISCHES HILFSWERK (THW)

## German Federal Agency for Technical Relief

### About Us

THW (Technisches Hilfswerk) is the Federal Agency for Technical Relief of the Federal Republic of Germany. Its statutory tasks include the provision of technical assistance at home and humanitarian aid abroad.

Today, more than 76,000 volunteers, as well as roughly 850 full-time employees, work for the federal THW organisation. Together, they form the foundation of the qualified technical assistance provided at home and abroad. The THW has 6,000 vehicles of various types at its disposal.

The diversity of its units reflects THW's range of operations. For example, there are Technical Groups on the local level which focus on recovery, clearing, electricity supply, water damage/ pumps, management/ communication, bridge-building, infrastructure, water hazards, location, logistics, drinking water supply and oil damage and last but not least the special unit SEEBa (Rapid Deployment Unit Search and Rescue).

### Official functions

The functions of THW are defined in a Federal law. These functions consist in providing technical relief in the sectors of civil defense, disaster relief and international humanitarian assistance. The main fields of activity are rescue, salvage and rehabilitation of infrastructure (water, electricity, sewage).

### Structure

Under the direction of THW-headquarters - 8 offices of state commissioners  
- 66 regional commissioners  
- 665 local sections with voluntary local commissioners  
form the organizational structure of THW.

### Training

The main asset of THW is the professional knowledge of its volunteers. These volunteers represent a wide scope of technical and other professions on various levels of expertise and experience. All THW-members receive a special training in several stages in the local sections and in the two THW-training centers. The training is concentrated on additional skills needed for national and international relief missions.

### Units and equipment

Throughout the Federal Republic THW maintains 810 technical platoons, each with 40 volunteers. Each platoon consists of one command squad with 4 volunteers and three special sections with 12 volunteers.

These types of special sections are provided by THW in following numbers:

- 1,620 rescue and salvage
- 264 general infrastructure
- 132 debris clearance
- 132 boat and pontoon
- 66 electric supply
- 66 pumping and sewage
- 66 search and detection
- 66 command, control and communication
- 66 logistics
- 32 water supply and treatment
- 16 temporary bridge construction
- 16 oil pollution
- 6 sections for the Rapid Deployment Unit Search and Rescue

Each unit is provided with the particular equipment it needs as i.e. emergency tenders, tool and gear carriers with special equipment and material, personnel transporters, trucks, emergency power generators, water treatment plants, trailers (e.g. for equipment), cranes, multipurpose bulldozers and boats. In total over 6,000 vehicles are of the disposal of THW.

### Missions

In Germany, THW is requested in many cases of emergency, particularly when its equipment and the special skills of its members are needed for assistance in local or regional emergencies. The Federal Government has frequently ordered THW to provide international assistance in crisis situations such as earthquakes, flooding, drought and refugee emergencies. In general these operations are integrated into plans of action of the European Union or the United Nations. As of today, THW has carried out hundreds of missions abroad.

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