

Germany

National Progress Report on the implementation of the Hyogo Framework for Action

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Strategic goals 1

Area 1

The more effective integration of disaster risk considerations into sustainable development policies, planning and programming at all levels, with a special emphasis on disaster prevention, mitigation, preparedness and vulnerability reduction.

Strategic Goal Statement:

The design of this questionnaire does not match the complexity of the structure of the German DRR system. Due to the fact that the system has been relatively well established for a number of years, the answers generally illustrate the status quo with some details addressing recent developments. They are divided into the national (Federal Government – Federal States (Laender) – Counties – Communities) and the international levels (humanitarian aid – development cooperation). Valuation was sometimes difficult to achieve because of the different stages of implementation at the different levels.

Disaster Risk Reduction (DRR) is a cross-cutting core aspect in various German planning and development strategies, with climate change adaptation issues considered to be strongly related to DRR, and currently the main driver for most developments in this field. DRR composes an important part of the Federal Government's national sustainability strategy (in which the "German strategy of adaptation to climate change" (Deutsche Anpassungsstrategie: DAS) is integrated). The Federal government's approach in the DAS is currently in the design process through the subordinated authorities of the "Federal Ministry of Environment, Nature Conservation and Nuclear Safety" (BMU), with implementation scheduled for autumn 2008. This program pursues a double-sided goal; on one hand, this includes redesigning and rearranging the available legal and technical capacities and resources, trying to optimise them with respect to climate change, but also to improve the climate change database to include disasters and extreme weather events, and on the other hand, to develop new methods, tools and frameworks all based on scientific developments to cope with all aspects of climate change. The whole program includes DRR as an aim, however, not in its own right, but as a component part of several other aspects. Concrete measures to achieve DRR touch on many different administrative and organisational areas, therefore requiring multidisciplinary/multistakeholder approaches, making it a cross-cutting issue within DAS. As a result, DRR is to be addressed simultaneously in many diverse political and administrative structures, for that reason, however, posing a major challenge. Research in the field of climate change is funded by national research programs through the "Federal Ministry of Education and Research" (BMBF) and others, which is also aimed at enhancing the link between natural and social sciences and stakeholders.

Additionally, the Federal Government and its "Federal Ministry of Transport, Building and Urban Affairs" (BMVBS) is currently amending the "Regional Planning Act" ("Raumordnungsgesetz") and other laws related to DRR (see Priority 1 Core Indicator 1). The BMU is preparing a draft for a new environmental code. This is because traditionally all issues related to sustainable development have been seen as environmental matters, resulting in responsibility and/or leadership in many areas of DRR taken by the BMU. There are also concrete plans addressing disaster reduction in most spatial and some urban planning projects. These usually comprise only small parts of the plans and are put in place because they concern one specific legal planning aspect, mostly at the community level.

As part of the European Union, Germany follows European directives concerning strategic adaptation matters in various fields and on different levels. For example, directive 2007/60/EC on the assessment and management of flood risks from November 2007 requires Member States to assess the flood risk of all waterways and coastlines, in order to map the potential extent of damage to both people and assets at risk in these areas and to take adequate and coordinated measures to reduce this risk. EC-Directives

provide a basis for German strategies, as can be seen in the recent law for floods and high water from May 2005, to cite one example (see Priority 1 Core Indicator 1).

The “Position Paper of the Federal Government on Disaster Reduction in Foreign Countries” recognises DRR as one of the main topics that is effective in the fields of humanitarian aid, development-oriented emergency aid and nearly all areas of development cooperation. This paper defines three main elements: risk analyses, disaster prevention, and preparedness, underlining the so-called “Linking Relief and Development (LRRD)” concept as a guideline for development policies.

The “Federal Foreign Office” (AA) (emergency aid) and the “Federal Ministry for Economic Cooperation and Development” (BMZ) (development-oriented emergency aid and development cooperation) as well as the “Federal Ministry of the Interior” (BMI) (civil protection activities) handle DRR in cooperation with each other, as well as with stakeholders. The AA, for example, is very actively engaged in the “European Strategy for DRR in Developing Countries” from April 2008 (1. Better Integration of DRR into development, humanitarian policies and planning as well as crisis response; 2. Improvement of identification, assessment and sharing of disaster risk; 3. Development and strengthening of DRR institutions, mechanisms and capacities; 4. Enhancement of knowledge and public awareness; 5. Reduction of the underlying risk factors) and the “European Consensus on Humanitarian Aid” (see annex in Priority 1 Core Indicator 3). It has also developed its own 16-point strategy paper for disaster reduction in partner countries (see annex in Priority 1 Core Indicator 1).

The German development cooperation has implemented DRR into its regional and national portfolios in areas at high risk and considers disaster risks in its project planning, implementation and evaluation. This strategy aims at implementing stand-alone DRR-projects and cross-cutting considerations of DRR in other projects, such as sustainable resource management. On the project level different Priorities of the “Hyogo Framework for Action” (HFA) are integrated. For the institutionalisation of DRR in development cooperation the “Federal Ministry for Economic Cooperation and Development” (BMZ) has initiated the sector project “Disaster Risk Reduction in Development Cooperation”.

As one can see in this short summary of national strategies, there are, in addition to the Federal Government, six German Federal Ministries visibly active in DRR:

- “Federal Ministry of the Interior” (Bundesministerium des Inneren: BMI)
- “Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (Bundesministerium für Umwelt, Naturschutz und Reaktorsicherheit: BMU)
- “Federal Ministry of Transport, Building and Urban Affairs” (Bundesministerium für Verkehr, Bau und Stadtentwicklung: BMVBS)
- “Federal Ministry of Education and Research” (Bundesministerium für Bildung und Forschung: BMBF)
- “Federal Foreign Office” (Auswärtiges Amt: AA)
- “Federal Ministry for Economic Cooperation and Development” (Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung: BMZ)

Area 2

The development and strengthening of institutions, mechanisms and capacities at all levels, in particular at the community level, that can systematically contribute to building resilience to hazards.

Strategic Goal Statement:

The concrete and active strategies for DRR rely on several institutions, each with its own legal framework. This results in sectorial strategies and efforts to strengthen institutions and capacities for DRR. In 2004 the Federal Government and the Federal States (Laender) agreed on a “New Strategy for the protection of the German population” with a multifaceted institutional improvement of DRR, which

proved successful. To implement this strategy and make it effective, the “Federal Office for Civil Protection and Disaster Response” (BBK) was founded, which is currently working on different methods for the protection of critical infrastructure (aligned with the EU Green Paper for Sustainable, Competitive and Secure Energy) and networking systems for the variety of actors and authorities in the field of DRR and disaster response. To cover other important fields, additional institutions were activated/founded in order to amend the work of BBK, such as the “German Joint Information and Situation Centre of the Federal Government and Laender” (GMLZ) and the “German Emergency Planning Information System” (deNIS), to name just a few. Together with the foundation of the BBK, the “Academy for Crisis Management, Emergency Planning and Civil Protection” (AKNZ), which was started in 1953 under a different name, became a part of this Federal Office.

Recently, cooperation between federal authorities was strengthened in order to improve DRR-capacities, including efforts of the “Federal Environment Agency” (UBA), the “German Meteorological Service” (DWD), the BBK, and the “Federal Agency for Technical Relief” (THW). Research and development in DRR were partly focussed in the “Competence Center on Global Warming and Adaptation” (KomPass) of the UBA, which has recently been established and is technically in charge of the aforementioned DAS. Other developments comprise the foundation of a “Climate Service Centre” and “Climate Bureaus”, both partly addressing DRR matters.

The communal authorities have a major task in DRR, because they are responsible for all operational aspects of disaster response and management and a large share of risk reduction through planning issues. This even includes the decision to enlist federal forces such as the THW in disaster response and relief management. Additionally, the local and regional flood emergency alliances and flood management centres have seen a strong push since the last floods.

There is a strong non-governmental contribution to DRR in Germany. This includes the involvement of many individuals in NGOs, such the German Red Cross with about 0.4 million volunteers in Germany and a centralised coordinating capacity, including the use of high-tech equipment. The fire brigades have a volunteer force of about 1.2 million, adding to the large number of volunteers across Germany. This means that most communities have some disaster response capacity integrated into the population.

The “Federal Foreign Office” (AA) supports the improvement of institutions and capacities in partner countries on national, regional and local levels through human resource development and political dialogue, among other methods.

The German development cooperation possesses the capacities and know-how to support mechanisms for resilience at all levels and is currently expanding the DRR knowledge base of its staff. It supports the competence of the different enforcement organisations and their interaction within the LRRD-approach (Linking Relief, Rehabilitation and Development).

The German Red Cross, for example, provides the National Red Cross and Red Crescent Societies with the means and knowledge necessary for community mobilization, community-based disaster mitigation, and necessary structures and hardware for disaster preparedness.

Area 3

The systematic incorporation of risk reduction approaches into the design and implementation of emergency preparedness, response and recovery programmes in the reconstruction of affected communities.

Strategic Goal Statement:

Based on risk assessments, Public-Private-Partnerships in the area of critical infrastructure, planning

issues, building codes and the whole range of emergency response DRR has been indirectly implemented in almost all aspects of emergency preparedness, response and recovery programs.

Since 2001 the Federal Government has strengthened its emergency services with new equipment and in 2007 the “Standing Conference of Interior Ministers” (IMK) has decided to design and equip emergency management and civil protection units in a modern and more efficient way. After the Elbe Flood in 2002, the Federal Government adopted a Five-Point-Programme to improve preventive flood protection and management. The act to improve preventive flood control, adopted in 2005, adapts the various legal provisions relevant to flood protection at the federal level (e.g., 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)). A new protective law for floods and high water from May 2005 requires the Federal States (Laender) to define flood plains/areas for all endangered rivers by 2012 on the basis of so-called “100-year flood levels” (see also Priority 4).

Disaster response is organized by the Federal States (Laender) and through extensive, sophisticated cooperation of governmental institutions and authorities, fire brigades (run by the municipalities), non-governmental organizations (e.g., German Red Cross (DRK), the Malteser Germany, the Order of St. John or the Workers` Samaritan Federation Germany (ASB)). The challenge remains, however, that there is almost no comprehensive planning tool/law that includes all sectors, although the German DRR-system has proven to be relatively successful in practice in the past, mainly due to the success and sound design of the individual components, created independently of the DRR framework. The tradition of voluntary services in emergency management and a rather strong reaction system has proven to be a solid base for response and recovery. The overall strategy in this area and also for the “Federal Agency for Technical Relief” (THW) is to broaden the basis for recruitment of new voluntary and salaried forces respectively.

Additionally, several insurance companies are in a process of considering how to motivate their customers to contribute to DRR activities.

The “Federal Foreign Office” (AA) carries out the strengthening of capacities in its strategy for DRR in partner countries through specific precaution at all levels and especially for the self-help of vulnerable individuals.

The German development cooperation implements its development-oriented emergency aid in a sustainable way to include aspects of long-term DRR. It aims at an integration of prevention and preparedness in rehabilitation and reconstruction through, for example, earthquake resistant rebuilding or the support of local DRR-committees.

The German Red Cross assists its partners in their negotiations with the local, regional and national authorities to incorporate DRR in their plans for disaster response and recovery in order to establish a disaster-resistant infrastructure.

Priority for action 1

Ensure that disaster risk reduction is a national and a local priority with a strong institutional basis for implementation.

Core indicator 1

National policy and legal framework for disaster risk reduction exists with decentralised responsibilities

and capacities at all levels.

Level of Progress achieved:

5: Comprehensive achievement with sustained commitment and capacities at all levels

Description:

The German federal system divides the competence for disaster reduction between the Federal Government and the Federal States (Laender), whereas the major tasks lie in the hands of the states (see an overview in the annex below). Additionally, DRR is a cross-sectoral topic and therefore no sole law exists for its regulation. Rather, the elements of DRR are integrated in both the “non-military” civil protection law of the Federal States (Laender) and the German Security Policy at the national level.

On the national level, the capacities of the Federal State, in particular the “Federal Agency for Technical Relief” (THW) and the “Federal Armed Forces” (Bundeswehr: see links), support the forces of the Laender, such as the emergency organisations and fire brigades. According to article 35 of the German constitution the different authorities of the Federal Government and the Federal States (Laender) have to assist each other in the case of a natural disaster. Therefore, the Laender have the right to demand help from Federal Forces such as the THW. The THW has associations at the county and municipality/community levels and is integrated in the local emergency response. Since 2000 the “Civil Military Cooperation” (CIMIC) or “Zivil-Militaerische Zusammenarbeit” (ZMZ: see links) of the Bundeswehr has a new structure: each federal state has its federal command and there are more than 400 regional commands for counties, which coordinate and train mainly reservists in disaster preparedness.

Certainly DRR also accounts for an important part of the environmental law/policy and spatial and land use planning. Among other things the national parliament has adopted a new version of the “Regional Planning Act” (“Raumordnungsgesetz”) in July 2008 in which civil protection and critical infrastructure play a more important role. After the Elbe Flood in 2002 the “Standing Conference of Interior Ministers” (IMK: see link) agreed on a “New Strategy for the protection of the German population” in which a series of regulations were laid out and research was conducted. A large part of these, such as the “German Joint Information and Situation Centre of the Federal government and Laender” (GMLZ) or the “German Emergency Planning Information System” (deNIS: see links) will be explained in Priority 2. The Law concerning the “German Meteorological Service” (DWD: see link) defines the duties of the DWD, namely the provision of meteorological services, the meteorological safeguarding of aviation and shipping, the issuing of official warnings in the case of dangerous weather phenomena, short and long-term recording, monitoring, and evaluation of meteorological processes in the atmosphere as well as its structure and composition, the recording of interactions between the atmosphere and other environmental spheres, the forecasting of meteorological processes, the monitoring of the atmosphere for traces of radioactive elements and the forecasting of their dissemination, the operation of the necessary measuring and observation systems and the provision, storage, and documentation of meteorological data and products. The German parliament has adopted a new protective law for floods and high water in May 2005, which obligates the Federal States to define flood plains/areas for all endangered river areas by 2012. Adaptation to climate change is considered a common strategy of all public authorities and as an integrated approach in all areas.

According to the law for civil protection (Zivilschutzgesetz: see annex) in its most recent version (from 2004), the tasks of DRR have been shared between the Federal Government and the Federal States (Laender), whereby the responsibilities on the county and community level are regulated by the Laender. The Laender are authorised to determine by executive order the jurisdiction of either several municipalities, municipal unions or associations of municipalities in the area of civil protection and management. Integrated in this system are the local authorities and (voluntary) fire brigades (run by the municipalities) with their 1.2 million volunteers as one of the main pillars. But this counts only for disaster

response; in the case of wildfires, the forest law at the Laender level holds the owners and forest management services responsible for DRR. The strong NGO-system of the German Red Cross (Deutsches Rotes Kreuz: DRK), the Workers` Samaritan Federation Germany (Arbeiter-Samariter-Bund: ASB), the Malteser Germany, the Order of St. John and the "German Lifeguard Association" (Deutsche Lebens-Rettungs-Gesellschaft: DLRG) (see links) supports these within the framework for civil protection. The flood management centres at the communal level are responsible for local forecasting and warning, while the Federal States are legally responsible for construction in their respective land areas and the communities/municipalities for the preservation, operation and planning.

The "Federal Foreign Office" (AA: see annex and link below) pursues an interdisciplinary approach to encourage the implementation of Early Warning and DRR in national policies of partner countries. Thereby it aims to strengthen its partner countries' sustainable development policies in DRR.

Context & Constraints:

The challenge for German policy is the coordination/adaptation of the different levels in the federal system, which has to be addressed by further efforts.

The cross cutting efforts, initiated for example in the "Competence Center on Global Warming and Adaptation" (KomPass) of the "Federal Environment Agency" (UBA: see links), need further attention. The suggestive established standard environmental impact assessment (UVP: see link) could serve as a model instrument for an official risk impact assessment, an idea for which there is already continuing discussion.

The general consensus of the German research landscape maintains that there is a need for a legally binding system to accumulate and access data addressing disasters, as there is currently no public mandatory system to collect, process, disseminate, and apply disaster occurrence data. In addition, a transnational (in particular European) policy needs to be established in order to ensure freedom of data access.

In the case of German development cooperation with disaster-prone communities, cooperation on the local level and the acceptance of a participatory approach are generally positive. But the implementation of DRR-concepts and programs for Disaster Mitigation and Disaster Preparedness is a matter of resources. The challenge is to convince the administration on both regional and national levels that DRR should take priority. In its international work, for example, the DRK works on the local and regional level.

Supporting document:

Zivilschutzgesetz (2004) http://www.preventionweb.net/files/2967_Zivilschutzgesetz.pdf [PDF 83.58 KB]

Overview Federal Law http://www.preventionweb.net/files/2967_ListeKatSG.pdf [PDF 65.24 KB]

Leitlinien DRR des Auswaertigen Amts

http://www.preventionweb.net/files/2967_katastrophenvorsorgegrundsaeetzeleitlinien.pdf [PDF 19.26 KB]

Katastrophenvorsorge des Auswaertigen Amts http://www.preventionweb.net/files/2967_AA.pdf [PDF 28.83 KB]

Related links:

DRK <http://www.drk.de/>

ASB <http://www.asb.de/view.php3?show=5400003200160>

Malteser <http://www.malteser.de/>

Johanniter <http://www.johanniter.de/>

DLRG <http://www.dlrg.de/>

CIMIC

http://www.streitkraeftebasis.de/portal/a/streitkraeftebasis/kcxml/04_Sj9SPykssy0xPLMnMz0vM0Y_QjzKL9443NfUASYGYJsGW-pEwsaCUVH1fj_zcVH1v_QD9gtylckdHRUUAABMgzw!!/delta/base64xml/L3dJdyEvd0ZNQUFzQUMvNEIVRS82X0tfNTdK

THW http://www.thw.bund.de/cln_035/nn_244766/EN/content/home/home__en__node.html__nnn=true

Bundeswehr <http://www.bundeswehr.de/portal/a/bwde>

BMU - Klimaschutz <http://www.bmu.de/klimaschutz/doc/41143.php>

UVP - Overview <http://bundesrecht.juris.de/uvpg/index.html>

DWD - Law

http://www.dwd.de/bvbw/appmanager/bvbw/dwdwwwDesktop?_nfpb=true&_pageLabel=dwdwww_aufgabenspektrum&_nfls=false

DRK <http://www.drk.de/>

KomPass

http://www.anpassung.net/cln_110/sid_45F733413D2174CC5295B43C7E3E7138/DE/Home/homepage__node.html?__nnn=true

UBA <http://www.umweltbundesamt.de/index-e.htm>

Federal Foreign Office (AA) <http://www.auswaertiges-amt.de/diplo/en/Startseite.html>

deNIS <http://www.denis.bund.de/>

GMLZ

http://www.bbk.bund.de/nn_402322/DE/02__Themen/05__Krisenmanagement/03__GMLZ/GMLZ__node.html__nnn=true

IMK

http://www.bundesrat.de/cln_051/nn_8758/DE/gremien-konf/fachministerkonf/imk/imk-node.html__nnn=true

Core indicator 2

Dedicated and adequate resources are available to implement disaster risk reduction plans and activities at all administrative levels

Level of Progress achieved:

4: Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Description:

Resources for disaster preparedness exist at all levels and timeframes (e.g., long-term measures); communities are responsible for the infrastructure of the communal roads and emergency services on a local level, the Federal States (Laender) for state law and the German State for nationwide disasters.

Civil protection is ensured through the German Constitution and the “law for reorganization of civil defense” (Zivilschutzneuordnungsgesetz: see link) as the responsibility of the Federal States (Laender) and thereby designed differently. In an extreme hazard situation the 16 different institutions of the Federal States (Laender) can receive assistance by demand through the “Federal Ministry of the Interior” (BMI) and the “Federal Agency for Technical Relief” (THW: see links), respectively. Together with the different institutions at the level of the Federal States (Laender) and Communities, the “Federal Office for Civil Protection and Disaster Response” (BBK) (subordinated by the BMI) works continuously to update and adapt the different systems. It works on nationwide disaster reduction plans and provides recommendations for the public on its website (see link).

Because local level actors are responsible for DRR in the first place, the plans and activities are carried out mainly by the fire brigades (or, in terms of risk reduction, by the forest management services and other organizations in cooperation with the landowners), emergency medical services or flood

forecasting and management centres (see links). In harbours and airports the fire brigades are responsible (as well as rescue trains for the rail), while the THW is in charge for large disasters. The regional authorities and councils share the responsibility to prepare for large disasters. Altogether the capacities are strong enough to implement the existing rules and supervise their conversion.

The “Federal Foreign Office” (AA: see link) has increased its budget for disaster reduction continuously and currently spends up to 10% of its resources for humanitarian assistance with a special focus on disaster reduction with partners such as UN/ISDR, the “German Committee for Disaster Reduction” (DKKV: see link) or the German Red Cross (DRK). Organizations such as the DRK also receive their own funding for disaster reduction (mainly through the German government and the EU) and carry out substantial programs on the local level in partner countries.

Context & Constraints:

Even though the resources for disaster reduction are manifold in Germany, there are challenges in delineating lines of responsibility and especially in promoting cooperation between the Federal States (Laender) and the Federal Government and even between research programs, state organs and other actors in disaster reduction. Therefore, the IMK (see the Core Indicator above) has initiated a “New Strategy” to merge the potentials of the Federal Government (particularly the THW) and the Federal States (Laender) (fire brigades and emergency organizations) in 2002.

The Federal Ministries currently compile the official “German strategy of adaptation to climate change” (Deutsche Anpassungsstrategie: DAS) under the leadership of the “Federal Ministry for the Environment, Nature Conservation and Nuclear Safety” (BMU) and in narrow cooperation with the Federal States (Laender). Additionally, the “Federal Environment Agency” (UBA) and its “Competence Centre on Global Warming and Adaptation” (KomPass: see links), which was founded in the end of 2006, provide support functions. Links between natural, societal and economic research with actors and institutions in DRR are also essential. Currently, climate change is the main focus of its activities while other areas must be further developed and integrated in all sectors.

In the case of German development cooperation with disaster-prone communities, cooperation on the local level and the acceptance of a participatory approach are generally positive. But the implementation of DRR-concepts and programs for Disaster Mitigation and Disaster Preparedness is a matter of resources. The German development cooperation still finances DRR mainly through emergency aid, which is not enough for a comprehensive integration of DRR in all development projects. Therefore an independent DRR fund within the technical cooperation would be a major achievement.

Related links:

THW http://www.thw.bund.de/cln_036/nn_244766/EN/content/home/home__en__node.html__nnn=true

BMU <http://www.bmu.de/english/aktuell/4152.php>

UBA <http://www.umweltbundesamt.de/index-e.htm>

KomPass http://www.anpassung.net/cln_110/DE/Home/homepage__node.html?__nnn=true

DKKV <http://www.dkkv.org/>

IMK

http://www.bundesrat.de/cln_051/nn_8758/DE/gremien-konf/fachministerkonf/imk/imk-node.html__nnn=true

Federal Foreign Office <http://www.auswaertiges-amt.de/diplo/en/Startseite.html>

BBK - Recommendations

http://www.bbk.bund.de/cln_027/nn_401772/DE/02__Themen/01__TippsBev/TippsBev__node.html__nnn=true

THW http://www.thw.bund.de/cln_036/nn_244766/EN/content/home/home__en__node.html__nnn=true

BMI

http://www.bmi.bund.de/cIn_028/nn_122688/Internet/Navigation/EN/Homepage/Home.html__nnn=true
Zivilschutzneordnungsgesetz
<http://archiv.jura.uni-saarland.de/BGBl/TEIL1/1997/19970728.1.HTML#GL20>
Deutscher Berufsverband Rettungsdienst (DBRD) http://www.dbrd.de/content/cms/front_content.php
Emergency Services <http://www.rettungsdienst.de/2008/07/11/organisationen-im-portrat/>

Core indicator 3

Community Participation and decentralisation is ensured through the delegation of authority and resources to local levels

Level of Progress achieved:

4: Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Description:

The local level is participating in DRR on a large scale through the German understanding of subsidiarity. Subsidiarity gives priority to communal independence over governmental action. This means that the local authorities and chapters of emergency response forces can receive assistance from above by demand, though only in the case of urgent need. This has to be considered not only in the case of disasters but also with decisions and responsibilities about construction areas, land use etc. on the local/communal level. In the case of disaster response and management, the main actors in Germany include the local fire brigades and police, "Federal Agency for Technical Relief" (THW), as well as private relief/emergency services such as the Red Cross (DRK), Malteser Germany, the Order of St. John or the Workers` Samaritan Federation Germany (ASB).

In the case of a major hazard across federal boundaries or nationwide, the superordinated authorities and organizations such as the "Federal Agency of Technical Relief" (THW: see links) support the various actors on the communal level. Constitutionally, however, DRR and preparedness/prevention are largely a local duty of communities and town districts. Their local fire brigades and emergency medical services (as well as the communal flood protection) provide the foundation of DRR in the population because of their ability to raise awareness and especially through their voluntary engagement. More than 1.2 million people work in the voluntary fire brigades, another 400,000 in the five volunteer organizations – the DRK, the ASB, the Malteser Germany, the Order of St. John and the "German Lifeguard Association" (Deutsche Lebens-Rettungs-Gesellschaft: DLRG) (see links) – and an additional 76,000 volunteers in the THW. Through the civilian service and the voluntary social year, an additional 90,000 young citizens work in a DRR-related field. Through the tradition of voluntary work in disaster relief/assistance, a culture of resilience is developed at a community-based micro level, while the different actors (including the THW) are primarily coordinated by the communal operation administration in the case of an emergency, as the fire brigades are communal and the emergency services are controlled by the district. Therefore, due to the principle of subsidiarity, the regional authorities assume responsibility in the case of larger disasters.

Due to the "European Consensus on Humanitarian Aid" (see annex) from December 2007, the AA and the German development cooperation pursue a coherent and complementary approach on all levels. This includes the creation of basic conditions and the capacity building necessary for the respective levels to meet their appropriate responsibilities in DRR, as participation is a central principle of the German development cooperation. The German development cooperation has supported decentralization in all areas for a long time, similar to DRR.

Context & Constraints:

The decentralised German system requires structures of responsibility and knowledge about

mechanisms, possibilities and regulations at the local level, which faces the challenge of an potentially inefficient and difficult to manage delegation of tasks and participation of the different actors in disaster and emergency management at the community level. The German federal system has been reformed for years and one of its challenges is the continued efficient use of DRR-resources after dismantling bureaucracy and changing the administrative structures.

The Federal Government, the Federal States (Laender) and the communities are attempting to develop a future organization of DRR that contains all the benefits of such a decentralized organization without simultaneously sacrificing comprehensive approaches. Due to the plurality of actors in this area, this is emphasized as the main challenge. Additionally, voluntary services have faced the unforeseen challenge of a decreasing number of new recruits in recent years due to the change in demography and mobility of the population.

The German development cooperation recognizes DRR as a mainstream issue with limitations in capacities and resources at the local level. Therefore it aims to reduce them through capacity building at a communal level.

Supporting document:

EU-Consensus on Humanitarian Aid (2008)

http://www.preventionweb.net/files/2967_euconsensusen.pdf [PDF 4.17 MB]

Related links:

DLRG <http://www.dlrg.de/>

Johanniter <http://www.johanniter.de/org/juh/enindex.htm>

THW http://www.thw.bund.de/cln_036/nn_244766/EN/content/home/home__en__node.html__nnn=true

DRK <http://www.malteser.de/>

Malteser <http://www.malteser.de/>

ASB <http://www.asb.de/view.php3?show=5100005900062>

Core indicator 4

A national multi sectoral platform for disaster risk reduction is functioning.

Level of Progress achieved:

4: Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Description:

At the end of the International Decade for Natural Disaster Reduction (IDNDR), the UN appealed to member states to establish organizations/platforms for disaster risk reduction or to support those that already exist. As a logical consequence of the clear consensus among all stakeholders in Germany, the "German Committee for Disaster Reduction" (DKKV: see link) continued the work of the German IDNDR Committee.

The "Federal Foreign Office" (AA: see link) ensured its continuing support as the main donor to the work of the German National Platform. Therefore, the Committee was able to continue its activities without interruption and its structure remained the same. The DKKV functions as a competence centre for all questions of national and international disaster reduction, prevention and management and spreads the knowledge of disaster reduction across all levels of the education sector. DKKV also acts as a mediator for international organizations and institutions in the area of disaster reduction and aims to enhance interdisciplinary and transnational cooperation. It works for the implementation of available knowledge

and procedures/techniques about disaster reduction in politics, administration and economics and for strategies to strengthen disaster resilience.

The DKKV is a registered association under private law and, therefore, it is not a government authority. It currently has 49 voluntary committee members and about 20 long-term guest members from the areas of policy, administration, science, the media and aid organisations. It is directed by an executive board (the chairperson is Dr. Irmgard Schwaetzer, former Federal Minister for Regional Planning, Building and Urban Development) that is supported by a scientific and an operating advisory board. An office with a staff of 3 persons (with up to 4 part-time workers and interns) manages ongoing administrative and subject area-related tasks. The Member Assembly is the main body of the association and meets at least once a year. The assembly elects the Board of the Committee and is the decision-making body for long-term strategic decision-making and legally binding agreements. The diversity of backgrounds represented within the Committee, as expressed by the variety of DKKV members with their different mandates and expertise, provides an excellent basis for interdisciplinary approaches that span a wide spectrum of interests. This broad basis of expertise enables the Committee to work on interdisciplinary, multi-sector topics that interlink different scientific disciplines and practitioners.

Core funding for DKKV and its activities is provided by a membership fee. As a key contributor to ISDR processes, the biggest share of project funding is provided by the "Federal Foreign Office" (AA). DKKV also receives various types of financing tied to specific projects and limited in duration and scope. The DKKV is also entitled to accept tax-deductible donations, as it is a certified non-profit organization.

Context & Constraints:

The main challenges for DKKV can be seen in the following areas:

- Supporting and initiating inter-disciplinary research
- Interlinking science and practice
- Connecting national and international aspects and initiatives
- Bringing together public sector and private sector structures

DKKV as a non-governmental association is not directly involved in decision-making processes at the governmental level. Therefore, an additional challenge is to convince decision-makers and politicians to reach risk-sensitive decisions by providing sound expertise.

Related links:

Federal Foreign Office (AA) <http://www.auswaertiges-amt.de/diplo/en/Startseite.html>

German Committee for Disaster Reduction (DKKV) <http://www.dkkv.org/default.asp>

Priority for action 2

Identify, assess and monitor disaster risks and enhance early warning

Core indicator 1

National and local risk assessments based on hazard data and vulnerability information are available and include risk assessments for key sectors.

Level of Progress achieved:

4: Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Description:

From the federal perspective, the overarching goal is to reduce the impact of extreme incidents on critical infrastructures and to be better prepared to handle anticipated crises. As a result, the “Federal Office for Civil Protection and Disaster Response” (BBK: see the link below) has developed a guide, “Critical Infrastructure Protection: Risk and Crisis Management” in cooperation with the private sector, government authorities and a research institute (see the attached PDF). This guide offers methods for implementing risk and crisis management and practical tools in the form of examples and checklists. The guide applies to all sectors and is intended for companies and government authorities as a tool for self-analysis. It is separated in five phases: planning, risk assessment, preventive strategies, crisis management and evaluation. The BBK has likewise developed its approach to provide a scientifically sound and practicable method for GIS-aided risk analyses in civil protection that is applicable to all administrative levels. It has also conducted its risk analyses for different hazards and subjects of protection at a national level.

Based on long-term data, the “German Meteorological Service” (DWD: see link) provides risk maps for the excess of certain extreme weather conditions, while the “Center for Disaster Management and Risk Reduction Technology” (CEDIM), in addition to other scientific institutes, develops national and country-specific risk assessments for natural hazards (see the link to the CEDIM Risk Explorer). They are also regularly in contact with institutions like the “German Association of Cities and Towns” or the “German County Association” in order to achieve the advancement of local assessment mechanisms. In particular, the floods of the last decade have sparked improved co-operation between the Federal States (Laender), the German state and other countries in forecasting floods.

The German insurance industry has sophisticated and detailed methods for risk assessment, including the “NATural Hazards Assessment Network” (NATHAN: see link) of the “Munich Re Group”.

The German scientific landscape and other actors (such as the GTZ) have also begun implementing these methods with international partners, such as the “German Indonesian Tsunami Early Warning System”, for example (GITEWS: see link).

The German development cooperation supports risk assessments in its partner countries depending on the level at which the cooperation takes place. These assessments include hazard data and vulnerability information to incorporate DRR-measures into the development plans.

Context & Constraints:

National risk assessments are available, with a focus on risk identification and characterisation, in which critical infrastructure is currently identified as the main problem. However, an exhaustive examination and compilation of all available information (e.g., the meteorological data from the DWD) has not taken place due to a scarcity of resources. Therefore the DWD aims to increase its ability in some areas, such as the forecasting of precipitation to assure the projection of floods before they occur. Additionally, the “Joint Hazard Estimation of the Federal States (Laender) and the Federal Government” therefore aims to compile hazards (natural/technological/man-made) exceeding “day-to-day” hazards/crisis situations of national concern, as well as to identify risk hotspots, required additional/specialised capabilities, means/actions to decrease vulnerability and increase coping capability. This occurs through regular and event-driven updates and a yearly review of results, which is seen as the first step to a national risk map for the entire Federal Republic of Germany.

Since the Federal States (Laender) are responsible for disaster management, these assessments are organized and developed independently of each other, resulting in some challenges for an extensive analysis of both the local and national levels. For example, the institutions responsible for fire prevention (land/forest owners, forest management services) and fire response (ministries for the interior, fire services at the level of the communities) are aware of the general current wildfire hazard and its potential

increase as a consequence of climate change. However, besides the general awareness that specific tree species/forest types bear a high wildfire risk (e.g., pine forests), systematic risk assessment databases and vulnerability information regarding fires are lacking. Since responsibilities for fire management (prevention and suppression responsibilities) are divided between different agencies and land owners, a systematic approach for joint inter-agency methodology and procedures for wildfire risk and vulnerability assessment is required and has been initiated by the DWD and the “Global Fire Monitoring Centre” (GFMC: see link).

As for international co-operation, the technical solutions for early warning systems often ignore the communication lines to those communities most affected by the disasters – warning systems, including dissemination and communication of information, need more attention from donor agencies and political decision makers, as seen from the perspective of German agencies. UNU-EHS is currently preparing a report on vulnerability indicators together with the BBK and the “German Aerospace Center” (DLR: see link).

The German development cooperation recognizes the integration of climate change risks into risk assessments as one of the largest challenges because data for the local level is lacking, among other examples.

Supporting document:

Protection of Critical Infrastructures (2005)

http://www.preventionweb.net/files/2967_ProtectionofCriticalInfrastructuresBaselineProtectionConcept.pdf [PDF 2.14 MB]

Schutz Kritischer Infrastrukturen - Risiko- und Krisenmanagement (2008)

http://www.preventionweb.net/files/2967_LeitfadenSchutzKritis.pdf [PDF 1.22 MB]

Related links:

CEDIM Risk Explorer <http://dc108.gfz-potsdam.de/website/riskexp/viewer.htm>

Deutsches Zentrum fuer Luft- und Raumfahrt (DLR) <http://www.dlr.de/>

Waldbrandgefahrendes DWD <http://www.agrowetter.de/Agrarwetter/waldix.htm>

Global Fire Monitoring Center (GFMC) <http://www.fire.uni-freiburg.de/>

NATural Hazards Assessment Network <http://mrnathan.munichre.com/>

GITEWS <http://www.gitews.de/>

CEDIM <http://www.cedim.de/>

Deutscher Wetterdienst (DWD) <http://www.dwd.de/bvbw/appmanager/bvbw/dwdwwwDesktop>

Bundesamt fuer Bevoelkerungsschutz und Katastrophenhilfe (BBK)

http://www.bbk.bund.de/cIn_027/DE/00__Home/homepage__node.html

Core indicator 2

Systems are in place to monitor, archive and disseminate data on key hazards and vulnerabilities

Level of Progress achieved:

4: Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Description:

The BBK runs a “German Emergency Planning Information System” (deNIS: see link) together with various partners from all areas of disaster management. It includes information about hazards (and other dangers), vulnerabilities and risks, but is not completed and currently does not attempt to address climate change risks. In its recently improved version – deNIS II – it also delivers information for civil

protection/disaster management (see detailed description in Priority 5). The DWD provides extensive weather forecasts and data through its Satellite Application Facilities and seeks to warn the public and the relevant authorities in case of an extreme weather event. Therefore, the DWD has reached an administrative agreement with the Federal States (Laender) in the areas of storm and thunderstorm warnings and water management. The prediction and consultation headquarters (Vorhersage- und Beratungszentrale: VBZ) in Offenbach is responsible for nationwide information, while the regional headquarters in Essen, Hamburg, Leipzig, Munich, Potsdam and Stuttgart each handle regional warnings. The DWD is currently working on a national warning centre to be established by 2010. The "Federal Environment Agency" (UBA: see link) and its "Competence Centre on Global Warming and Adaptation" (KomPass: see link), aim to identify future regional impacts of climate change and proactive adaptation to mitigate or at least minimize future losses.

Forest fire statistics are available for the whole country, although under the jurisdiction of the Federal States (Laender). At the federal level, statistics are compiled and distributed to key agencies and are publicly available on the website of the Global Fire Monitoring Centre (GFMC: see link). In some states, forest fire defence maps have been developed. The flood centres and local authorities, including responsible members of the fire brigades, collect data about hazards and vulnerabilities.

The NatCatSERVICE of the "Munich Re Group" (see link), with more than 25,000 data set entries, is one of the world's largest damage databases for natural disasters. Between 700 and 900 events are detected and analyzed annually. As a direct result, magnitude and intensity of single damage events can be documented in different regions of the globe and be approached for regional and global danger analyses as well as to examine trends. The "Helmholtz Research Network" (see link) also provides data on natural disasters in its "Natural Disasters Networking Platform" (NaDiNe: see link).

Context & Constraints:

The challenges for deNIS and the "Joint Hazard Estimation of the Federal States (Laender) and the Federal Government" consist mainly of issues related to a lack of common understanding or appraisal of impacts: which losses are taken into consideration (e.g.: (1) capital stock risks such as damage to residences, lifelines/utilities, crops; (2) environmental risks, such as water/air/land pollution, loss of biodiversity; (3) economic risks, including reduced tax income or increased government expenditures, financial loss to government/business/residents; (4) social and cultural risks, including loss of life or injury and illness, loss of residence, decreased quality of life; (5) institutional and policy risks, such as liability, damage to reputation, increased distrust of government). Therefore experts from all areas of disaster reduction and management (including Public Private Partnerships) are integrated into a standardised structure that is currently in the process of development.

Furthermore, the precipitation prognosis of the DWD must be improved to be able to provide enhanced high water predictions and secure early warnings, the use and utility of statistics and fire defence maps to reduce wildfire risk has to be improved, and an open access rule for providing stakeholders with data needed for adaptation has to be established.

Related links:

NaDiNe http://nadine.helmholtz-eos.de/intro_en.html

Helmholtz Gemeinschaft <http://www.helmholtz.de/>

Muenchener Rueck <http://www.munichre.com/en/homepage/default.aspx>

Global Fire Monitoring Center (GFMC) <http://www.fire.uni-freiburg.de/>

Bundesanstalt Technisches Hilfswerk (THW) <http://www.thw.bund.de/>

Kompetenzzentrum Klimafolgen und Anpassung

http://www.anpassung.net/cin_046/DE/Home/homepage__node.html?__nnn=true

Umweltbundesamt (UBA) <http://www.umweltbundesamt.de/index-e.htm>

Core indicator 3

Early warning systems are in place for all major hazards, with outreach to communities.

Level of Progress achieved:

4: Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Description:

The "German Meteorological Service" (DWD: see link "Weather + Warnings") has a multi-level warning system of three pillars: "Early Warning", "Forecast/Premonition" and specific "County Warnings" which improve gradually in chronological and geographic sophistication. "Early Warning" as on week prognosis of risky weather events enfolds spacious areas like entire Federal States (Laender), while the "County Warnings" work as accurately as possible to allow the emergency management facilities an early planning tool. The DWD delivers information directly to facilities like fire fighters, police or civil protection and even to special users like the energy industry or water management services (see link DWD Special Users). The public weather forecast and the storm and thunderstorm warnings of the DWD are provided through the media or Internet (see link). Since 2005 the DWD has been running a steadily improving "Heat Warning System" (HWS), which is based on the "Health Related Assessment of the Thermal Environment" (HeRATE). A "Forest Fire Danger Index" and an "Experimental Grassland Fire Danger Index" has also been developed by the DWD, which is accessible on the Internet (see link) and provides the weather-based prognosis of fire danger for the next day. During periods of high fire danger, this index is published/broadcasted systematically by the media. Weather warnings are also available on different German websites or even distributed by text message (see attached links). The "German Emergency Planning Information System" (deNIS) and the "Joint Hazard Estimation of the Federal States (Laender) and the Federal Government" have also implemented first approaches to early warnings.

Most Federal States (Laender) have their own flood management centres that deliver local information and are integrated into local emergency services (see for example the centre in Cologne in the link below that even conducts risk assessment for private properties). On the one hand, these are organized through their relevant ministries in the "Working Group on Water Issues" (LAWA: see link) for all water-related concerns, while the different international river commissions (see ICPR, ICPO, ICPDR and ICPEP in the following Core Indicator), on the other hand, simultaneously manage such issues. The flood management centres have different early warning systems in place because there is no central regulation, rather outreach at the community level.

Baden-Wuerttemberg, Bavaria, Hesse, North Rhine-Westphalia, Rhineland-Palatinate and Saxony each has its own seismological service and earthquake early warning system, also organized in the "Federal Institute for Geosciences and Natural Resources Seismic Data Analysis Centre" (SDAC: see link). For single communities in the alpine area, avalanche warning systems exist.

The GFZ Helmholtz Centre in Potsdam (see link) is engaged in different early warning systems worldwide, including the "German Indonesian Tsunami Early Warning System" (GI-TEWS) mentioned above or the earthquake information service GEOFON (see link). The GEOFON Global Seismic Monitor works as an ongoing information platform and "Early Warning" system, which informs stakeholders in real-time after an earthquake.

The "Federal Foreign Office" (AA) and the "Federal Ministry for Economic Cooperation and Development" (BMZ: see links), support the development and extension of early warning systems

worldwide through the GTZ, InWEnt or local partner organizations. These people-centred early warnings aim to accumulate data through communities, analyse them centrally and disseminate the warnings back through the local authorities. In addition, the AA supports the Platform for the Promotion of Early Warning, PPEW of the UN/ISDR, which resides in Bonn. In 2006 the German Government hosted the “Third International Early Warning Conference” (EWC III) in Bonn, which resulted in a checklist of actions and a catalogue of early warning projects (see link for conclusions from the conference).

The GTZ and the Munich Re Foundation, for example, have supported local early warning systems in a Public Private Partnership (PPP) for the Buzi river in Mozambique since 2005. This people-centred early warning system integrates the communities in data collection and dissemination of warnings. The GTZ is also engaged in the GI-TEWS by implementing effective communication structures, public campaigns and consulting. Further German actors in this project are InWEnt, the “Federal Institute for Geosciences and Natural Resources” (BGR) and the United Nations University (UNU-EHS) (see links).

Context & Constraints:

The DWD aims to take a Single Voice Approach because it usually has, as a federal state authority, the sole duty to warn the public, although not by law. The “Forest Fire Danger Index” and the “Experimental Grassland Fire Danger Index” do not yet offer forecasts beyond one day. The DWD should receive the necessary financial support to develop medium-term (1 to 2 weeks) fire-danger forecast capabilities. The precipitation prediction capacity of the DWD is on the raise to be able to provide improved high water predictions and secure early warnings. Moreover, a large-scale or Federal State coverage area must be further developed to guarantee national early warning capabilities.

The DWD plans to improve early warnings particularly by including the prediction tools of other nations and new statistical procedures (ensemble calculations), but altogether data access across national boundaries is complicated, time consuming and at times impossible, as individual data owners must be addressed in each country. Therefore, new international agreements (but also between the Federal States (Laender)) need to be reached, based on the aforementioned examples of the GFZ or the BBK.

Related links:

EWC III http://www.ewc3.org/upload/downloads/Early_warning_complete2.pdf

UNU-EHS <http://www.ehs.unu.edu/>

BGR http://www.bgr.bund.de/cln_092/nn_322882/EN/Home/homepage__node.html?__nnn=true

InWEnt <http://www.inwent.org/index.en.shtml>

PPEW <http://www.unisdr.org/ppew/ppew-index.htm>

DWD Weather Warnings

http://www.dwd.de/bvbw/appmanager/bvbw/dwdwwwDesktop?_nfpb=true&_pageLabel=dwdwww_wetter_warnungen&_nfls=false

GTZ - Tsunami <http://www.gtz.de/de/themen/uebergreifende-themen/krisenpraevention/21020.htm>

Munich Re Foundation <http://www.munichre-foundation.org/StiftungsWebsite/>

GITEWS <http://www.gitews.de/>

DWD - Warnings <http://www.wettergefahren.de/>

Waldbrandgefahrenindex DWD <http://www.agrowetter.de/Agrarwetter/waldix.htm>

BMZ <http://www.bmz.de/en/index.html>

Auswaertiges Amt <http://www.auswaertiges-amt.de/diplo/en/Startseite.html>

Earthquake Information System (GEOFON) http://geofon.gfz-potsdam.de/geofon/new/eq_inf.html

SDAC <http://www.seismologie.bgr.de/index.htm>

GFZ Potsdam <http://www.gfz-potsdam.de/portal/>

Meteomedia Unwetterzentrale <http://www.unwetterzentrale.de/uwz/index.html>

Unwetterzentrale.de

<http://www.ndparking.com/serve.php?lg=de&dn=unwetterzentrale.de&ps=ba25497eb01229a1501d44ed>

1d2b9fe7&tk=rrOUUFcm4-UKEwj_hM6GmdaUAhUIEbMKHYYwW20QBhgAIAAwI_CgAzgVUIvwoANQ5NrECVCBqNAPUKmt0A9Q8I6uEFDwyaMbUMnhyCA&le=2008072310000091609&aq=unwetterwarnung

DWD Special Users

http://www.dwd.de/bvbw/appmanager/bvbw/dwdwwwDesktop?_nfpb=true&_pageLabel=dwdwww_spezielle_nutzer&_nfls=false

Bund/Laender-Arbeitsgemeinschaft Wasser (LAWA) <http://www.lawa.de/>

Hochwasserschutzzentrale Koeln <http://www.steb-koeln.de/hochwasser.html>

Core indicator 4

National and local risk assessments take account of regional / trans boundary risks, with a view to regional cooperation on risk reduction.

Level of Progress achieved:

4: Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Description:

The BBK established a GIS to carry out risk analyses for civil protection and conducted spatial analyses related to different subjects of protection, hazards and risks at a joint national level, when considering efforts that cross Federal State lines. From an international standpoint, the BBK carries out a research project together with partners such as UNU-EHS, DLR or the flood management centre in Cologne to identify indicators for the measurement and assessment of vulnerabilities and coping capacities (see link). This study is based on the work of national actors such as CEDIM and GFZ, but additionally on the EU-projects “Applied Multi-Risk Mapping of Natural Hazards for Impact Assessment” (ARMONIA: see link) and “Security and Trust in Cities” (SETRIC: see link).

In the case of the “Federal Agency of Technical Relief” (THW: see link) it is well integrated into a domestic and international network of those making requests and those partners offering cooperation. Networks are continuously broadened, further developed, and expanded on all levels, from local to international. In terms of efficient cooperation, several cooperation agreements and Memoranda of Understandings were concluded between THW and various partners.

One of the most important transboundary collaborations includes the international river commissions: Prevalent German examples include the “International Commission for the Protection of the Rhine” (ICPR: see the links below), the “IC for the Protection of the Danube (Donau) River” (ICPDR), the “ICP of the Elbe River” (ICPER), the “ICP of the Odra River” (ICPO) and the “Internationale Kommissionen zum Schutz der Mosel und der Saar” (IKSMS), which all carry out flood risk assessment appendages to ensure flood control and management in an cooperative approach. On the Rhine, for example, an action plan exists (see link) which contains all riparian states (see also the “European exchange circle on flood forecasting” (EXCIFF) and “TIMIS-Flood” links).

For storm and thunderstorm warnings the weather services use supra-regional information, but the warning systems of the different countries are not harmonized. The warning system “meteoalarm” contains EU-wide extreme weather warnings and the national meteorological services work together in “The Network of European Meteorological Services” (EUMETNET: see links).

The GFZ and other German research institutes and universities are partners in the “Seismic eArly warning For EuRope” (SAFER: see link). The current OECD program “Global Earthquake Model” (GEM: see link) aims to interlink the different projects and actors and provide a uniform, independent standard to calculate and communicate earthquake risk worldwide.

In the case of wildfire response, the authorities of the most wildfire-prone Federal State of Brandenburg and the neighbouring province of Poland have signed a bilateral mutual assistance agreement, while mutual visits and cooperative forest fire research have been conducted between Germany and Poland.

The "Federal Foreign Office" emphasises in its guidelines for DRR (see link) the future priority placed on development/advancement of regional networks. Therefore it supports, among other initiatives, a current project conducted by GFZ Research Centre Potsdam and InWEnt, which aims to build a risk-analysis network in Central Asia.

The German development cooperation supports concrete regional measures within the flood management programme „Mekong River Commission“ (Laos, Thailand, Cambodia, Vietnam), in Central Asia (Armenia, Azerbaijan) and in the Caribbean (Haiti, Dominican Republic). In Central America it has supported (together with the EU) the "Centro de Coordinación de la Prevención de Desastres Naturales en América Central" (CEPRENAC) in various activities.

Context & Constraints:

Data access across national boundaries is complicated, time consuming and partly impossible, as individual data owners must be addressed in each country. Although there is strong national coordination with respect to disaster response and protective systems, in the field of critical infrastructure the cooperation is less pronounced, as this industry is largely controlled by the private sector. In the case of wildfires, however, there is no common terminology, training, protocols or incident command systems in place to provide standardized and efficient cooperative wildfire response action. Relevant capacity building/training and protocols must be developed.

However, regional cooperation is developing, especially within the EU. Due to the floods of the Oder (1990) and Elbe (2002) rivers, regional flood management cooperation is increasing and has provided the systems with crucial improvements. As well as the already-mentioned weather forecast and warning systems, a further increase in international cooperation is already taking place, e.g., in "Global Monitoring for Environment and Security" (GMES: see link) or within the WMO.

Related links:

GEM <http://sicarius.wr.usgs.gov/gem/>

THW http://www.thw.bund.de/cln_036/nn_244766/EN/content/home/home__en__node.html__nnn=true

Guidelines DRR - Federal Foreign Office

<http://www.auswaertiges-amt.de/diplo/de/Aussenpolitik/Themen/HumanitaereHilfe/downloads/katastrophenvorsorge-grundsaeetze-leitlinien.pdf>

GMES <http://www.gmes.info/>

EXCIFF <http://exciff.jrc.it/>

TIMIS-Flood <http://www.timisflood.net/en/index.php>

SAFER <http://www.saferproject.net/doc/partnership.htm>

EUMETNET <http://www.eumetnet.eu.org/>

Meteoalarm <http://www.meteoalarm.eu/default.asp?lang=DE>

Action Plan on Flood Defence for the Rhine River

http://www.kvvm.hu/szakmai/budapestinitiative/docs/marc_braun.pdf

SETRIC <http://www.setric.org/>

ARMONIA

<http://www.armoniaproject.net/html4/index.php?module=ContentExpress&func=display&ceid=24&meid=-1>

BBK Forschungsvorhaben 280

http://www.bbk.bund.de/cln_027/nn_403144/sid_11C6499D26AB6BD0CD31690A6AB9B69C/DE/02__T

hemen/07__Forschung/02__Forschungsvorhaben/02__IfdFV/01__BeschreibungFV/Beschreibung_20Lang_20280.html__nnn=true
IKSMS <http://213.139.159.34/servlet/is/391/?lang=1>
ICPO <http://www.mkoo.pl/>
ICEPR <http://www.ikse-mkol.org/index.php?id=1&L=2>
ICPDR <http://www.icpdr.org/icpdr-pages/home.htm>
ICPR <http://www.iksr.org/index.php?id=470>

Priority for action 3

Use knowledge, innovation and education to build a culture of safety and resilience at all levels

Core indicator 1

Relevant information on disasters is available and accessible at all levels, to all stakeholders (through networks, development of information sharing systems etc)

Level of Progress achieved:

4: Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Description:

The “Federal Office for Civil Protection and Disaster Assistance” (BBK: see the links below) provides in its “German Emergency Planning Information System” (deNIS and deNIS II) an extensive collection of Internet links for all relevant information, including actors and institutions in disaster reduction, prevention, management and potential. The BBK has chosen this means of distributing information to the public because it does not entail data creation, rather the compilation, organisation, and centralisation of exhaustive, official, pre-existing information in a manner that can be navigated more readily. For additional information on climate change, the “Federal Environment Agency” (UBA: see link) and other public authorities cooperate extensively to provide information to all stakeholders.

On the Federal States level, the “Crisis Management and Disaster Relief Centre” of the BBK operates the “German Joint Information and Situation Centre of the Federal Government and Laender” (GMLZ: see link), which provides information for the Federal States (Laender) and Government as well as organisations in large-area damage situations or other circumstances of national importance. By order of the Ministry of the Interior, the GMLZ is also involved in the EU collective procedure on intensified cooperation in international disaster control (see Priority 2).

The “German Meteorological Service” (DWD: see link) provides meteorological services, short and long-term recording, monitoring, and evaluation of meteorological processes in the atmosphere as well as its structure and composition, the recording of interactions between the atmosphere and other environmental spheres, the forecasting of meteorological processes, the operation of the necessary measuring and observation systems and the provision, storage, and documentation of meteorological data and products. It circulates this information through the media, its own homepage or others such as [unwetter.de](http://www.unwetter.de) (see link).

The “Helmholtz Research Network” provides scientific experts with information and data on natural disasters through its network in its “Natural Disasters Networking Platform” (NaDiNe: see link) for the press and the public. The website “metapage” (see link) makes comprehensive data about flood protection/management available and the insurance industry has the systems and publications such as the yearly review of the Munich Re Group and its NatCat Service (see link). The “German Committee for

Disaster Reduction" (DKKV) provides extensive information about all kinds of disasters in its publications and on its website (see link).

The county and community/municipality authorities as well as the emergency services and fire brigades have institutionalised a network of preparedness on the local level, which exchanges information but not in a systematic or centralised manner. The flood forecasting, management centres and different national authorities (see overview in the link "Hochwasserzentralen") offer information on water levels and flood risk (see the example).

In the case of international cooperation by German actors, providing advice and assistance in circulating relevant information about disasters at all levels has been implemented, for example, through country profiles with information about disaster risks (see link). It contributes to an international exchange of experiences through publications, events, conferences and dialogue boards.

Context & Constraints:

The DKKV attempts to tighten the links and networks of its members (from all areas of disaster reduction and management) through its daily work, activities and events. The BBK and the "Permanent Conference on Disaster Preparedness and Civil Protection" (SKK: see link) also pursue the goal of distributing information to all levels of actors and the public. But altogether there is an urgent need for an exhaustive database on all types of disasters.

In the opinion of most German actors in disaster reduction/management, there is not a lack in the range of available information but challenges of common understanding, awareness of responsibility/probabilities/possibilities by (potential) actors and not enough sophisticated networking, which must be improved at all levels through sensitisation and education (see the next Core Indicator). Additionally, a central database for all disasters is simply not yet available.

The German development cooperation plans to implement a "Round Table" for all DRR organisations to simplify communication and exchange of information.

Related links:

unwetter.de <http://www.unwetter.de/index.php>

DWD

http://www.dwd.de/bvbw/appmanager/bvbw/dwdwwwDesktop?_nfpb=true&_windowLabel=dwdwww_mai n_book&switchLang=en&_pageLabel=dwdwww_start

Flood Early Warning Baden-Wuerttemberg <http://www.hvz.baden-wuerttemberg.de/>

Hochwasserzentralen <http://www.hochwasserzentralen.de/>

NatCat Service http://www.munichre.com/en/ts/geo_risks/natcatservice/default.aspx

metapage <http://www.metapage.de/katastrophe/hochwasser/hochwasser.htm>

SKK <http://www.katastrophenvorsorge.de/>

InWEnt - Disaster Prevention and Management

http://www.inwent.org/themen_reg/themen/krisenpraev/katastrophen/index.en.shtml

DKKV <http://www.dkkv.org/>

Publications of the Munich Re Group <http://www.munichre.com/en/publications/default.aspx>

GMLZ

http://www.bbk.bund.de/nn_401590/DE/02__Themen/05__Krisenmanagement/03__GMLZ/GMLZ__node.html__nnn=true

NaDiNe http://nadine.helmholtz-eos.de/intro_de.html

Umweltbundesamt (UBA) - English <http://www.umweltbundesamt.de/index-e.htm>

deNIS <http://www.denis.bund.de/>

BBK http://www.bbk.bund.de/cln_027/DE/00__Home/homepage__node.html__nnn=true

Core indicator 2

School curricula , education material and relevant trainings include disaster risk reduction and recovery concepts and practices.

Level of Progress achieved:

3: Institutional commitment attained, but achievements are neither comprehensive nor substantial

Description:

The German scientific and university landscape offers a wide range of relevant study programs (BSc, MSc and PhD) and is at the moment especially developing its number of Master's Degree programs, such as the Master's in "Security and Danger Prevention" in Magdeburg, "Rescue Engineering" in Cologne or the old-established "European Master of Humanitarian Assistance" in Bochum as part of the "NOHA International Association of Universities" (see links). The BBK and the University of Bonn established a Master's program in "Disaster Prevention & Management" in 2006 (see link). The program is designed as an on-the-job correspondence course while the monthly attendance takes place in the "Academy for Crisis Management, Emergency Planning and Civil Protection" (Akademie für Krisenmanagement, Notfallplanung und Zivilschutz (AKNZ): see link) of the BBK. The AKNZ also releases publications and provides learning/study programs in various forms to the public. Altogether there has recently been a strengthening in higher education programs on all levels. The DKKV provides a collection of all relevant study programs in Germany (see link).

Together with Siemens Business Services, the BBK develops the "European Virtual Academy 4 Civil Protection" (EVA4CP: see links) on behalf of the EU. The Virtual Academy aims to implement an Internet-based platform and content management system for target groups, work on areas of common interest and exchange of experience, knowledge and best practice by the schools and training centres for Civil Protection, as well as develop the pedagogical and methodological concept for an e-learning module. There is also a number of appropriate school material from different actors such as the insurance industry, the "Federal Agency for Civic Education" (BpB: see link) and the DKKV (see link).

In addition, with the conscious inclusion and involvement of citizens, especially young citizens, in disaster protection and management (such as in the "Federal Agency for Technical Relief" (THW: see link) or the voluntary fire brigades), the German state is actively working to cultivate an existing partnership between the state, its organs, and its citizens. This partnership continuously demands the awareness of the reasonable and feasible responsibility of citizens for themselves and others.

The German international development cooperation considers the education sector as one of the most important tools for integrated Disaster Risk Reduction. As a result, it supports the integration of DRR in school curricula, education material and training for the employees of development cooperation themselves in various partner countries. In advanced trainings adjusted to the needs of actors in DRR, the concept of disaster risk reduction is elucidated, showing starting points for the integration of DRR into the respective field of work. InWEnt's flagship program in disaster prevention is mainly in the field of education, advanced training and emergency exercises. To provide another example, the German Red Cross has especially had success with training sessions in schools with teachers as multipliers as well as practical drills in disaster response with students, the effect of which raises the level of knowledge, awareness and commitment substantially.

Context & Constraints:

Although there are many relevant study programs, there are challenges in three areas: (1) There is still no exclusive study program for disaster medicine, (2) disaster protection/management is not integrated enough in the studies of spatial and land use planning, (3) there is no systematic approach to incorporate relevant, disaster-related curricula into existing study programs. For example, courses of

study such as architecture, engineering, chemistry, economics and many others do not generally discuss the elements of the respective field relevant to disasters. This has been initiated, but by far not yet accomplished. Developments in reforming school education in this regard is slow, likely due to the current lack of necessity and equally slow systemic development. The DKKV acts here as reminder and supporter, for example, with school materials.

Related links:

DKKV <http://www.dkkv.org/default.asp>

THW http://www.thw.bund.de/cln_035/nn_244766/EN/content/home/home__en__node.html__nnn=true

BpB <http://www.bpb.de/themen/I1QOLV,0,Umweltpolitik.html>

EVA4CP - Website <http://www.eva4cp.org/static/bbk/en/startpage.ihtml?register2=1>

EVA4CP - Background

http://www.bbk.bund.de/nn_402296/SharedDocs/Publikationen/Brosch_C3_BCren__und__Faltbl_C3_A4tter_20Download/Flyer__EVA4CP,templateId=raw,property=publicationFile.pdf/Flyer_EVA4CP.pdf

AKNZ

http://www.bbk.bund.de/cln_027/nn_398004/DE/02__Themen/13__Aus__undWeiterbildung/Aus__undWeiterbildung__node.html__nnn=true

German study programs - DKKV <http://www.dkkv.org/DE/links/default.asp>

Master Disaster Prevention & Management <http://www.kavoma.de/index.html>

NOHA http://www.nohanet.org/index.php?option=com_frontpage&Itemid=1

Humanitarian Assistance - Bochum <http://www.ruhr-uni-bochum.de/zsb/master/human/human-ma.htm>

Rescue-Engineering - Cologne

http://www.studium.fh-koeln.de/pruefung/ordnungen/infos_zum_studiengang/u/01346.php

Security and Danger Prevention - Magdeburg

<http://www.hs-magdeburg.de/fachbereiche/f-bauwesen/Studium/sga/ma/>

Core indicator 3

Research methods and tools for multi-risk assessments and cost benefit analysis are developed and strengthened.

Level of Progress achieved:

4: Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Description:

There is a sophisticated research structure in Germany and many research projects are granted by the different national and European authorities. One example, the “Center for Disaster Management and Risk Reduction Technology” (CEDIM: see link) has dealt for many years with the subject of multi-risk assessments and analysis. These efforts continue and are readily made available to users at all levels with increasing measurement tools. Its “Synopsis of Natural Hazards” involves the development of probability or scenario-based deterministic methods to compare different types of risks. Currently, the German Free State of Saxony, where flood, storm and earthquake hazards dominate, has been selected as a case study. Additionally, the “CEDIM RiskExplorer Germany” is a web-based map viewer that interactively presents the results of the CEDIM project “Riskmap Germany” and allows the user to retrieve maps of datasets including natural and man-made hazards, vulnerability and risk, as well as assets (elements at risk) (see links). This attempt has kicked off the establishment of a multi-risk-disaster-management-system at the local level (ORTIS).

Together with the UBA (its “Competence Centre on Global Warming and Adaptation” (KomPass) and its professional information system (see links)) the BBK centrally generates data of federal

agencies/departments, countries, institutes and international institutions, providing them in a revised form to users of deNIS II. Contents of this data include not only information about personnel, material and infrastructural assistance potential, but also information on the locations of risk-afflicted facilities. In its LUEKEX (Länderübergreifendes Krisenmanagement Exercise) the BBK trains different actors at all levels in various situations of disaster management, in particular the crisis squads of the upper administration levels. The concluded research and development of the “German Research Network on Natural Disasters” (2004) included cluster analyses for floods, storms, earthquakes and wildfires as well as decision-making support for early warning, monitoring, information management and simulation hazards (see link).

The German insurance industry has sophisticated methods such as the databases of the Munich Re Group, e.g., the MRNatCat or MRNathan (see link). MRNathan is an Internet-based tool that helps to develop risk profiles as a basis for risk assessments and rating of natural hazards. Even the direct insurers in Germany use local risk assessments such as ZÜRS to rate the risk for insured facilities.

The German development cooperation aims to enhance its approaches for multi-risk analyses through the promotion of research at all levels. The GTZ accomplishes these mainly in South America and combines this research with cost-benefit analyses. At the World Conference on Disaster Reduction in Kobe 2005 the GTZ presented a concept for “Cost-Benefit Analysis for Disaster Risk Management” (see page 16 in the annex).

Context & Constraints:

Germany has sophisticated research tools for multi-risk assessments, however, there still remain some basic deficits, such as a lack of quality control/oversight mechanisms as well as publicly accessible disaster databases. Generally, with the exception of the insurance industry, cost-benefit analyses are not integrated in the assessments and parts of the research are frequently just research without enough practical application or implementation.

While automatic fire detection systems have been installed in the most fire-prone Federal States (Laender) and a fire-danger rating system with 1-day forecast capability has been implemented nationwide, an advanced fire spread modelling system as well as training/capacity building for utilizing this information is not yet in place. Starting in 2008, a joint initiative of the “Global Fire Monitoring Centre” (GFMC: see link), a professional fire service and forestry school, is building a model for capacity building (wildland fire training academy), inter-agency cooperation, and integrated fire management in the State of Hesse, to serve as model for the other 15 Federal States (Laender).

Taken together, Germany has the right components for a centralised national multi-risk assessment program, which must be addressed in the next years by properly utilising the extensive resources that exist.

The German development cooperation aims to integrate climate change risks into its risk analyses and sees challenges in terms of a global necessity of scientific research.

Supporting document:

GTZ - Cost-Benefit Analysis http://www.preventionweb.net/files/2967_DKKVKobe.pdf [PDF 3.78 MB]

Related links:

Global Fire Monitoring Center <http://www.fire.uni-freiburg.de/>

MRNathan <http://mrnathan.munichre.com/>

German Research Network on Natural Disasters <http://bib.gfz-potsdam.de/pub/str0401/0401.pdf>

UBA - KomPass http://www.anpassung.net/clin_117/nn_702286/SharedDocs/UDK-Dokumente/InKA.html

CEDIM - Research <http://www.cedim.de/english/14.php>

CEDIM - Synopsis of Natural Hazards <http://www.cedim.de/english/1020.php>

CEDIM Risk Explorer <http://dc108.gfz-potsdam.de/website/riskexp/viewer.htm>

CEDIM <http://www.cedim.de/english/index.php>

Core indicator 4

Countrywide public awareness strategy exists to stimulate a culture of disaster resilience, with outreach to urban and rural communities.

Level of Progress achieved:

4: Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Description:

Many parts of this question have been addressed in the last three Core Indicators. Additionally, however, the DKKV has the official mandate to inform the public and build awareness for disaster reduction through campaigns, educational programs, events, informational brochures and much more (see extensive information in the link below). Through its members from all areas of disaster reduction, management and education, the DKKV multiplies its approaches at all levels. The BBK, the UBA, other national authorities, as well as the German insurers work in a similar way by distributing information to the public through publications. All of these actors, especially the DKKV, circulate flyers about natural hazards and possible disasters to inform and sensitise the public. The continuous activities of the DKKV, such as its yearly forum for disaster reduction, aim to inform the broader public.

Most of the research facilities have their own division for the press, public and even for educational campaigns, conferences or school visits. The German press landscape (even the mass media) has had a larger focus on natural disasters and the impacts of climate change, at the latest since the Elbe Flood in 2002 and the Tsunami in 2004.

The THW and other actors in disaster management such as the German Red Cross regularly participate in a variety of different activities to increase citizens' awareness of their focus and profile through exhibitions, dialogue with citizens, and outdoor activities in public places, among others.

The "Federal Foreign Office" (AA: see link) regularly finances practical international training courses, e.g., for seismologists from states particularly affected by earthquakes carried out by the GFZ Research Centre Potsdam (see link) and so-called „training for the trainer" courses for staff of UN organisations.

The German development cooperation supports the improvement of public awareness in partner countries through campaigns and participative risk analyses at all levels. Through this work it also contributes to increased awareness in Germany. The improvement of resilience to disasters is one of the main approaches of the development cooperation agencies.

The German Red Cross and national Red Cross and Red Crescent Societies with a high profile in Disaster Reduction, Prevention and Management (such as those in Indonesia or Bangladesh) engage in national awareness campaigns and programs.

Context & Constraints:

Nonetheless, public awareness for DRR is developing slowly, likely because of the current lack of urgency. With the exception of the aforementioned incidents, such as the Elbe Flood in 2002 or Hurricane Kyrill in January 2008, the German public is seldom confronted with major natural hazards

with far-reaching effects, therefore making permanent awareness more difficult. There is, however, disaster resilience, especially in rural communities, although this is more of a result of tradition than current strategies.

Related links:

GFZ Potsdam <http://www.gfz-potsdam.de/portal/>-

AA <http://www.auswaertiges-amt.de/diplo/en/Startseite.html>

DKKV <http://www.dkkv.org/>

Priority for action 4

Reduce the underlying risk factors

Core indicator 1

Disaster risk reduction is an integral objective of environment related policies and plans, including for land use natural resource management and adaptation to climate change.

Level of Progress achieved:

4: Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Description:

As mentioned in Priority 1 Core Indicator 1, DRR accounts for an important part of the environmental law/policy, as well as spatial and land use planning. The “Competence Centre on Global Warming and Adaptation” (KomPass) of the “Federal Environment Agency” (UBA), and the “Federal Office for Civil Protection and Disaster Response” (BBK) of the “Federal Ministry of the Interior” (BMI) work with the “German Committee for Disaster Reduction” (DKKV) on an official “German strategy of adaptation to climate change” (Deutsche Anpassungsstrategie: DAS) for which a general symposium takes place at the end of August 2008 (see links below). The BMU is preparing a draft for a new environmental code for all issues related to sustainable development and DRR. In the case of land use planning the national parliament has passed a new version of the “Regional Planning Act” (Raumordnungsgesetz) in July 2008 in which civil protection and critical infrastructure play a more important role.

DRR takes an integrated approach to all policies because of its overlapping importance, but especially in environmental policies and plans. Besides climate policy, for example, DRR is active in agriculture policy through flood resistant coverage areas or in a more sustainable (heat and storm resistant) forestation through the conservation of resources. Especially in forest management practices, traditional measures are included for the prevention and spread of wildfires. The consequences of altered forest management practices and land-use change (abandonment of agricultural and pasture lands) are resulting in an increase of wildfire hazards in some regions of the country.

The German development cooperation promotes synergy effects between DRR and the management of natural resources. Therefore, aspects of DRR are already integrated in some partner countries in terms of the relevant development cooperation measures. It participates, for example, in a German-Nicaraguan environmental program on the integration of disaster risks into land use planning. Environmental programs in the Philippines and Madagascar integrate DRR elements automatically. Even climate change and disaster risks are integrated together into adaptation strategies of the German development cooperation.

Context & Constraints:

The overall challenge for both the national and EU level is to reduce rural exodus and/or address the consequences of rural land-use abandonment (also known as changing land-use patterns). At the same time the increasing lack of young work force/volunteers to be recruited by the volunteer fire and emergency services (what is directly connected to rural exodus and the mobility of the population) should be addressed (see the next Core Indicator). Even the adaptation on climate change must be further utilised to address the difficulties in environmental policy.

The general consensus of the German development cooperation maintains that there is a need for frameworks in sustainable resource and environment management because there is a lack of consistent integration of environmental politics and planning, aside from the successes on the project level. Currently the integration is more situational than systematic.

Related links:

Symposium DAS

http://www.anpassung.net/nn_701050/DE/Aktuelles/Termine/2008/Termin__080827-28/termin__080827-28.html

DKKV <http://www.dkkv.org/>

BMI

http://www.bmi.bund.de/cln_012/nn_122688/Internet/Navigation/EN/Homepage/Home.html__nnn=true

BBK http://www.bbk.bund.de/cln_007/DE/00__Home/homepage__node.html__nnn=true

BMU - Anpassung an den Klimawandel <http://www.bmu.de/klimaschutz/doc/41143.php>

UBA - Climate Change <http://www.umweltbundesamt.de/klimaschutz-e/index.htm>

KomPass

http://www.anpassung.net/cln_117/sid_C940668629DB2F6A6FD5756550AC1E5F/DE/Home/homepage__node.html?__nnn=true

Core indicator 2

Social development policies and plans are being implemented to reduce the vulnerability of populations most at risk.

Level of Progress achieved:

4: Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Description:

In the case of Germany, this question must be addressed from the perspective of an industrialised nation, as changes in vulnerability and effects of natural hazards have occurred through social development, urbanization and the accompanying changes in agriculture and forestry (see Core Indicator 1). There are, however, social safety nets in place that can absorb parts of the aftermath. For example, destroyed crops “only” hit market prices and do not affect food security itself, while the public health system is well equipped and able to react quickly and efficiently in the case of a natural disaster.

Protection of critical infrastructure has become one of the key activities in DRR, for example, for the BBK (see Priority 2 Indicator 1 or the next Core Indicator). Additionally, risk sharing takes place by legal obligation to insure property against hazards, while insurance products and even public aid is made available to insure against flooding. Moreover, the education system can be counted amongst social policy (see Priority 3 Indicator 2) and other areas, as explained in the Priorities above.

The “Federal Foreign Office” (AA: see annexes) aims in its strategy of sustainable development

approaches for DRR in vulnerable societies and, as a result, promotes the integration of sustainable DRR in national policies of partner countries.

Concerning social development, the German development cooperation particularly promotes the integration of DRR in the educational sector, but also within the scope of political participation and Good Governance. Education projects are, among others, located in Sri Lanka, Indonesia and Mozambique. Beside this, the participation of affected persons, especially of susceptible population groups (the poor, children, elderly, indigenous groups, women (see also Section 7 Indicator 2)) is explicitly promoted. One practical example can be seen soon in the ISDR-Publications by InWEnt: "Good Practices and Lessons Learned: Poverty Alleviation and Disaster Risk Reduction". The GTZ and DKKV have developed a study "Linking Poverty Reduction and Disaster Risk Management" (see annex).

Context & Constraints:

The problems mentioned in the last Core Indicator are also appropriate in this case. Through the change in structures and mobility of the population, the natural infrastructure and the willingness of workers to commit themselves longer to voluntary services are also applicable here. The voluntary fire brigades have therefore changed their strategy of membership promotion and education, to provide one example (see link).

The integration of DRR in the respective sector strategies of the German development cooperation is proceeding but not concluded. Assistance for the concrete integration of DRR into sector strategies is planned.

Supporting document:

Linking Poverty Reduction and Disaster Risk Management (2005)

http://www.preventionweb.net/files/2967_LinkingPovertyReductionDisasterRiskManagement.pdf [PDF 3.11 MB]

AA - Leitlinien [http://www.preventionweb.net/files/2967_katastrophenvorsorgegrundsaeitzeleitlinien\[1\].pdf](http://www.preventionweb.net/files/2967_katastrophenvorsorgegrundsaeitzeleitlinien[1].pdf) [PDF 19.26 KB]

AA - Katastrophenvorsorge [http://www.preventionweb.net/files/2967_AA\[1\].pdf](http://www.preventionweb.net/files/2967_AA[1].pdf) [PDF 28.83 KB]

Related links:

DFV 2020 - Strategien

http://www.dfv.org/startseite/Programm_DFV_2020_-_Strategien_fuer_eine_sichere_Zukunft.pdf

Core indicator 3

Economic and productive sectorial policies and plans have been implemented to reduce the vulnerability of economic activities

Level of Progress achieved:

3: Institutional commitment attained, but achievements are neither comprehensive nor substantial

Description:

One of the main points in reducing vulnerability of economic activities is the planning and construction of human settlements and establishment of building codes such as described in the next Core Indicator.

In the case of economic policy, critical infrastructure (see Priority 2 Indicator 2) is one of the main challenges which has been recognized by the "Federal Ministry of the Interior" (BMI) and the "Federal Office for Civil Protection and Disaster Response" (BBK: see the links below). The BBK has developed a guide, "Critical Infrastructure Protection: Risk and Crisis Management" in cooperation with the private

sector, government authorities and a research institute, as well as a “Baseline Protection Concept” (see links). In the definition of the BBK, as one can see in the first link provided, critical economic infrastructure consists of the following main points:

- Supply Systems such as Water and Sewage, Food, Health and Emergency Services/Disaster Management
- Energy Industry
- Traffic and Transportation Systems
- Communication and Information Systems
- Public Authorities and Administration
- Financial, Monetary and Insurance Systems
- Dangerous and Hazardous Substances
- Others such as the Media, Science and Culture

To avoid the exclusive concentration on response and disaster management, the guide from the BBK aims to sensitize these actors in the areas of risk assessment and disaster reduction.

Furthermore the enterprises/industries in Germany are mostly insured against natural hazards/disasters and the insurance industry is well positioned. Indeed, there are areas in which insurance coverage is not enough to protect businesses, but basic coverage exists. This is mainly in the case of small and medium-sized businesses in the primary sector. For these businesses there is a basic protection against bankruptcy through disaster by reconstruction credits from the Federal States banks and the “KfW Mittelstandsbank” (see link), however not everyone can receive these credits. The large-scale industries typically have their own protective measures in the form of either financial reserves or through their own plant protective forces.

The German development cooperation recognizes the importance of supporting economic and productivity politics and planning in its DRR-Cooperation. This includes public investment planning on the one hand and instruments of risk transfer on the other hand. Additionally, the German development cooperation is active at different levels: At the local level (e.g., in Bolivia and Peru) economic susceptibility factors are already accounted for in risk analysis. Building upon this data, DRR measures are identified that also serve to protect income possibilities. These measures become absorbed by the local development plans and budgets. In Peru, for example, risk analysis could additionally be integrated into public investment planning.

Context & Constraints:

Altogether the vulnerability of the German economy has been reduced in recent years, though challenges remain through the complex interdependency of cross-border activities, especially in the energy sector. There the “EU Green Paper for Sustainable, Competitive and Secure Energy” attempts to adapt and unify the different systems. Private actors (and also cities) still too often react only in the case of damages and do not focus enough on disaster reduction and prevention. National authorities and the EU are attempting to developed mechanisms and guidelines to improve this situation.

The German development cooperation is currently testing special economic instruments and methods such as micro insurances and risk transfer because they are still in the initial phases. The potential of economic politics and planning is not exhaustive, considered from the view of German development cooperation. Therefore, it aims at systematizing the evaluation of its previous experiences.

Related links:

KfW - Mittelstandsbank http://www.kfw-mittelstandsbank.de/EN_Home/index.jsp

BBK - Critical Infrastructure Protection

http://www.bbk.bund.de/cIn_027/nn_398734/SharedDocs/Publikationen/Publikationen_20Kritis/Leitfaden__Schutz-Kritis,templateId=raw,property=publicationFile.pdf/Leitfaden_Schutz-Kritis.pdf

BBK - Critical Infrastructure

http://www.bbk.bund.de/cIn_027/nn_398004/DE/02__Themen/06__SchutzKritischerInfrastrukturen/SchutzKritischerInfrastrukturen__node.html__nnn=true

BMI

http://www.bmi.bund.de/cIn_028/nn_122688/Internet/Navigation/EN/Homepage/Home.html__nnn=true

Core indicator 4

Planning and management of human settlements incorporate disaster risk reduction elements, including enforcement of building codes.

Level of Progress achieved:

3: Institutional commitment attained, but achievements are neither comprehensive nor substantial

Description:

The German building law consists of two parts: the private building law under the “Baugesetzbuch” (BauGB) and the public building law which consists again of two extra parts, the “Bauplanungsrecht” under the BauGB and “Raumplanungsgesetz” (RPG), as well as the “Bauordnungsrecht” under the building laws of the Federal States aligned with the national sample building law (“Muster-Bauordnung and “Muster-Industrieaurichtlinie”) (see links below for an overview). For example, paragraph 1, article 5 of BauGB states that it should serve to protect and develop the human environment and natural resources, also responsible for general climate protection. For the spatial and land use planning of the “Regional Planning Act” (Raumordnungsgesetz: ROG), the draft for a new version from July 2008 includes the protection of critical infrastructure and civil protection. The urban land use planning (“Bauleitplanung”) considers civil protection as one of the main objectives in paragraph 1, article 6. Under paragraph 50 of the “Bundesimmissionsschutzgesetz” (BImSchG: see link), land use planning is to be regulated in a way that casualties and disasters in industrial areas do not affect residential areas.

Nationwide legislation refers to norms such as DIN, which are flexible to adapt to changing situations. DIN 1055 regulates the national requirement for the strength of buildings in handling wind and snow, depending on the location. Regarding earthquake safety, the national building code DIN 4149 (from April 2004) has to be adhered to and the national committee for the earthquake building code is preparing a national annex for the EU building code EUROCODE 8, which will be introduced soon. For dams, the national building code DIN 19700 (from July 2004) provides the legal basis, which claims lower recurrence periods and higher safety standards for design earthquakes.

In general, the Federal States are responsible for regulations regarding DRR in their specific “Bauordnungsrecht”. For flood preparedness, local communities are responsible. They use the expertise of consultants to identify building areas or flood protection plains. The builder/owner of a private building is responsible for its own safety against floods, thereby necessitating private precaution through architectural means as well as insurance. The already mentioned ORTIS attempts here to establish a multi-risk disaster management system at the local level to help communities and private citizens plan their DRR.

Settlement planning and construction specifications are relevant for the German development cooperation especially within the scope of rehabilitation and reconstruction (see next Core Indicator). The GTZ, for example, has developed a guide for building activities after disasters and conflict (see annex in the next Core Indicator). Construction plans within the scope of financial cooperation consider DRR systematically.

Context & Constraints:

The German building codes provide assurance for the most dangerous hazards through norms for wind, snow and earthquakes, but this is not enough. In the case of earthquake norms, for example, there is currently no existing standard for industrial facilities, but is being discussed. The German scientific community continuously reminds us that stronger legislation for DRR is needed.

The principle of subsidiarity has to be strengthened at the community level, especially the dimension of private precaution through better clarification of possible dangers and sensitization to individual responsibilities. The builders and scientific researchers take this a step further and have developed safer building techniques and are constantly exploring new possibilities. The main challenge is to persuade the builders that this is necessary.

Related links:

BImSchG <http://www.gesetze-im-internet.de/bimschg/index.html>

Bau- und Planungsrecht <http://www.umwelt-online.de/recht/bau/uete.htm>

Baurecht <http://www.baurecht.de/>

Overview Building Law <http://www.bauordnungen.de/html/deutschland.html>

Core indicator 5

Disaster risk reduction measures are integrated into post disaster recovery and rehabilitation processes

Level of Progress achieved:

3: Institutional commitment attained, but achievements are neither comprehensive nor substantial

Description:

DRR is certainly an important component of recovery processes, but the main responsibility lies in the communities and individuals because the same norms and codes are obligatory (as in the Core Indicator before), also for the rebuilding of destroyed property. Therefore more DRR-standards have to be considered in the case of recovery, simply because new construction projects and repairs have to maintain the latest technical standards. As mentioned in Core Indicator 2 or in the Priority below, Germany has social safety nets in place that can absorb parts of the aftermath of a natural disaster, but there is no law or policy, besides the building norms from the Core Indicators 1 and 4, for the Integration of DRR in recovery processes.

Humanitarian assistance and development-oriented emergency aid certainly include DRR in recovery and rehabilitation processes: The GTZ offers, for example, additional risk analyses to arrange the rehabilitation and rebuilding process in a preventive perception (see annex). The goal is clearly to integrate DRR and preventive activities into emergency aid to strengthen the preparedness of vulnerable societies.

Context & Constraints:

The challenges concerning this point are certainly broad. The communities and individuals have their own responsibilities with DRR in terms of recovery, such as adhering to the building norms above. As has been previously mentioned, there are laws for fire, wind and earthquake safety for private properties, but not for floods, for example. The challenges for the communities and the state itself therefore lie in the realm of raising awareness and sensitising the population to risk.

Supporting document:

GTZ - Building Codes http://www.preventionweb.net/files/2967_degtzbauhandreichung.pdf [PDF 1.81

Core indicator 6

Procedures are in place to assess the disaster risk impacts of major development projects, especially infrastructure.

Level of Progress achieved:

3: Institutional commitment attained, but achievements are neither comprehensive nor substantial

Description:

For the “Federal Ministry of Transport, Building and Urban Affairs” (BMVBS: see link), the waterways are critical, as well as shipping and air traffic. Risk assessment for projects related to the construction of waterways and dikes are standard and specified in DIN-Norms. DIN 1055-9 contains principals for assessing risk during the development of construction projects, while at the same time considering the interdependency of building projects in the area of shipping traffic. Similar assessments have to be accomplished in air traffic.

In the case of the railway system, wildfire risk assessments are in place because German infrastructure and economic activities are at a high risk of being affected by railway-caused wildfires. This network includes German Railway operations and infrastructure, adjoining industrial and private infrastructure, forests and cultivated lands. Therefore the implementation of vegetation management alongside railroad tracks aimed at reducing wildfire hazards, however, is often in conflict with nature conservation goals.

For nuclear power plants a site specific hazard assessment has to be completed, based on the national regulation "KTA 2201" from the national reactor safety commission and according to the knowledge of science and technology. KTA 2201 from 1990 is currently under revision.

The oft-cited guide, “Critical Infrastructure Protection: Risk and Crisis Management” and other projects for the protection of critical infrastructures from the “Federal Office for Civil Protection and Disaster Response” (BBK: see the link below for an overview) aim to conduct risk assessments for infrastructure. The “Competence Center on Global Warming and Adaptation” (KomPass) of the “Federal Environment Agency” (UBA: see links) provides guidance for first approaches to risk assessment concerning climate change.

Altogether many of these strategies are still being fine-tuned, but have mostly been implemented.

Additionally supporting these strategies, the “Federal Foreign Office” (AA) and the German development cooperation maintain the goal of implementing DRR in development cooperation through assessments in their approach to sustainable development. The “KfW Entwicklungsbank” (see link) conducts an environmental and social compatibility assessment for each of its projects.

Context & Constraints:

The challenges for German policy in regard to DRR in development projects are similar to those in the previous Core Indicators. Changing land-use patterns and diversified responsibilities bring forth challenges for the Federal Government, the Federal States and the communities as well as private individuals. There are approaches to conducting assessments in critical infrastructure and the most endangered development projects but not on every level. In the case of road construction there are risk assessments and norms concerning pavement, fixation, safety, etc., but DRR is only a matter in endangered areas such as mountains and not applicable for the whole country. The official environmental impact assessment contains the effects of major development projects on nature, but there is no specific risk assessment for the impact of large projects on the disaster risk.

Related links:

KfW - Entwicklungsbank http://www.kfw-entwicklungsbank.de/EN_Home/index.jsp

KomPass

http://www.anpassung.net/cln_110/sid_898FE92E8D323C42F8038057C9DF1E46/DE/Home/homepage__node.html?__nnn=true

UBA <http://www.umweltbundesamt.de/index-e.htm>

BBK - Critical Infrastructure

http://www.bbk.bund.de/cln_027/nn_398004/DE/02__Themen/06__SchutzKritischerInfrastrukturen/SchutzKritischerInfrastrukturen__node.html__nnn=true

BMVBS <http://www.bmvbs.de/en>

Priority for action 5

Strengthen disaster preparedness for effective response at all levels

Core indicator 1

Strong policy, technical and institutional capacities and mechanisms for disaster risk management, with a disaster risk reduction perspective are in place.

Level of Progress achieved:

4: Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Description:

The German federal system divides the competence for disaster management between the Federal Government and the Federal States, whereas the major tasks lie in the hands of the states (see Priority 1 Core Indicator 1).

The “Federal Office for Civil Protection and Disaster Response” (BBK: see link) has equipped hospitals in various locations with first aid equipment for large disaster situations and carries out maintenance nationwide based on legal standards. Additionally, it has developed a federal framework for the decontamination of injured people, provides recommendations for companies and has developed a concept for responding to mass catastrophes. Its analytical task forces (ATF) provide advice for the relief/action units on the spot. In river flood areas embedded and mobile prevention elements are used and the Flood Management Centres have detailed action plans similar to other emergency services and civil protection organizations and authorities (see challenges).

The emergency services, civil protection and official authorities are well equipped and strongly prepared. The cooperation between national/federal authorities, NGOs/private actors such as the German Red Cross (DRK) and the state forces such as the “Bundeswehr” described in Strategic Goal 2 and Priority 1 Core Indicator 1 secures strong capacities in all areas. Also the technical capacities of the “Federal Agency for Technical Relief” (THW: see link) are integrated very well into the disaster management and defence of the Federal States. In the case of large disasters, the Federal States request assistance from the THW and it provides technical aid for the management of all kinds of disaster situations. The THW is prepared for large-scale operations in hazard situations, as it is the de facto operational organisation of the Federal Government.

The German development cooperation provides several implementation organizations to support affected partner countries in different disaster situations with different specialist knowledge at all levels

(such as the German Red Cross (DRK) or Malteser International, the THW, GTZ, InWEnt or the “Federal Institute for Geosciences and Natural Resources” (BGR: see links)). These different capabilities and capacities are used to strengthen emergency aid in partner countries. InWEnt, for example, supports its partners mainly through Capacity Building with the establishment of political, technical and institutional capacities and the development of disaster precaution and emergency reaction plans. The GTZ currently supports a project to strengthen the institutionalisation of DRR in Mozambique (see link).

Context & Constraints:

The challenges in terms of policy and institutional capacities result from the forecasting abilities at the different levels and sectors of DRR and disaster management. The vertical and horizontal diversification is so distinctive that no general/central action plans are in place. Every authority, organization or flood management centre has its own sophisticated plans of action, but in a disaster situation these different plans have to be adapted and there is currently no system, besides deNIS II, to integrate them in a functional way. deNIS II (see Priority 2 and the next Core Indicators) has initiated an approach to integrate and adapt them, but this is currently in an initial phase and not yet concluded.

Related links:

GTZ - Mozambique <http://www.gtz.de/de/themen/uebergreifende-themen/krisenpraevention/21071.htm>

DRK <http://www.drk.de/>

Malteser International http://www.malteser.de/61.Malteser_International/en/default_en.htm

GTZ <http://www.gtz.de/en/index.htm>

InWEnt <http://www.inwent.org/index.en.shtml>

BGR http://www.bgr.bund.de/nn_322882/EN/Home/homepage__node.html?__nnn=true

THW http://www.thw.bund.de/cln_036/nn_244766/EN/content/home/home__en__node.html__nnn=true

BBK http://www.bbk.bund.de/cln_007/DE/00__Home/homepage__node.html__nnn=true

Core indicator 2

Disaster preparedness plans and contingency plans are in place at all administrative levels, and regular training drills and rehearsals are held to test and develop disaster response programmes.

Level of Progress achieved:

4: Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Description:

Preparedness plans are in place, although they are decentralized on different levels and with different organizations and authorities. As a result, there are plans on all administrative levels and among the emergency services.

On a national level, the “Federal Office for Civil Protection and Disaster Response” (BBK) of the “Federal Ministry of the Interior” (BMI: see links) carries out drills for collective response to large nationwide disasters on the strategic level in its training program LUEKEX (“Länderübergreifendes Krisenmanagement Exercise), especially for crisis/emergency task forces on the higher administration levels in cooperation with the operators of critical infrastructure (involved are mostly the public and private health care system, the police and non-police danger prevention/defence, the civil-military cooperation (CIMIC) as well as private companies and organisations). In November 2007, for example, LUEKEX simulated a nationwide pandemic.

The communal administration is by law /regulations at the Federal State level to hold regular training sessions and tests in emergency services and to improve preparedness, especially in the case of the

voluntary fire brigades. However, there are some challenges in wildfire response (see context and constraints). Starting in 2008 the Germany-based Global Fire Monitoring Center (GFMC: see link), in partnership with a professional fire service and a forestry school, will develop a model for capacity building (wildland fire training academy), inter-agency cooperation, and integrated fire management in the State of Hesse, to serve as model for the remaining 15 Federal States. The private relief/emergency services such as the Red Cross (DRK) have their own plans and training, which also conduct training with the THW as the operational organisation of the Federal Government at regular intervals. The THW is well integrated in disaster preparedness plans and carries out internal and external exercises together with other relief units at all levels (see link for an overview). The flood management centers have their own action plans and carry out training with the responsible communal authorities as well as their enforcement organizations, such as the fire brigades.

The "Federal Foreign Office" (AA) finances international training courses and the German development cooperation supports its partner countries in preparing emergency plans and committees and accomplishing simulation trainings. From January 2007 until December 2008 the GTZ (see link) supports the "Instituto Nacional de Gestão de Calamidades" (INGC) of Mozambique in institutionalizing DRR, for example.

Context & Constraints:

Concepts are in place for all possible disaster situations at all levels.

From an overarching national point of view, the LUEKEX trainings are sophisticated though not limited exclusively to natural disasters, rather applying to any large-scale crisis.

The challenges lie within the different levels of voluntary services, which have faced the unforeseen challenge of a decreasing number of new recruits in recent years due to the change in demography and mobility of the population (see Priority 1). Especially in the case of the voluntary fire brigades, there is a lack of appropriate specific capacities of human resources and adequate equipment and tools for specific wildfire suppression requirements. Altogether it is difficult to accomplish training with a high turnover rate of personnel.

Related links:

GTZ <http://www.gtz.de/en/index.htm>

BBK http://www.bbk.bund.de/cIn_007/DE/00__Home/homepage__node.html__nnn=true

BMI

http://www.bmi.bund.de/cIn_028/nn_122688/sid_7089B3C2A742B5D10B2187728EC6055A/Internet/Navigation/EN/Homepage/Home.html__nnn=true

THW - Overview

http://www.thw.bund.de/cIn_036/nn_245244/sid_0E5E9F1FBB3B29D56F6CDE4CF6899770/SiteGlobals/Forms/DE/Suche/ErweitertSuchFormular,templated=processForm.html

ASB <http://www.asb.de/view.php3?show=5400003200160>

Malteser Germany <http://www.malteser.de/>

DRK <http://www.drk.de/>

Global Fire Monitoring Center <http://www.fire.uni-freiburg.de/>

Core indicator 3

Financial reserves and contingency mechanisms are in place to support effective response and recovery when required.

Level of Progress achieved:

4: Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Description:

There is no special fund for disasters because the Federal Government, the Federal States and private actors possess enough resources for emergencies, also from a financial perspective. The Government has an economic responsibility in the case of large-scale damage, which is carried out, however, by regrouping budget resources. There is basic protection for small and medium-sized businesses through reconstruction credits from the Federal State banks and the “KfW Mittelstandsbank” (as mentioned in Priority 4 Core Indicator 3).

Beside the economic responsibility of the German government and national authorities, one should recognize the insurance industry as an important and established financial reserve and reconstruction mechanism. The privately available risk capital in the form of natural hazard and other specific damage/indemnity insurance offers worldwide amounts to several billion euros. The evaluation of risk accumulation and the establishment of reserves are the most important duties of an insurance company and the enterprises in Germany are fully aware of this role.

The instruments of the German Humanitarian Assistance and Development Cooperation become active in the case of emergencies in other countries within the scope of its international obligations. Therefore the budget funds of the “Federal Foreign Office” (AA) and the “Federal Ministry for Economic Cooperation and Development” (BMZ) were substantially increased in recent years and they receive additional funding from the official federal budget in the case of a large disaster.

Context & Constraints:

The challenges especially for the reduction of financial risks through insurance lie in the difference of availability and degree of the claim between the Federal States and, of course, between the different national states worldwide. In Germany, however, the legislator can also contribute to the broader private precautionary measures, in addition to the compulsory insurance constraint, by clarifying legally that its ad hoc-facilities and services in emergencies are only made available if every single citizen has fully exhausted his or her own precautions in the form of insurance offers.

Core indicator 4

Procedures are in place to exchange relevant information during hazard events and disasters, and to undertake post-event reviews

Level of Progress achieved:

4: Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Description:

The BBK runs a “German Emergency Planning Information System” (deNIS: see link) together with various partners from all areas of disaster management. It includes information about hazards, vulnerabilities and risks, but is not complete and currently does not attempt to address climate change risks. In its recently improved version – deNIS II – it also delivers information for civil protection/disaster management. deNIS II was created to support emergency/relief units and authorities with real-time information about disaster events, geological data (e.g., location of critical infrastructure, risky facilities or resources for emergency assistance), risk types, background information and in the near future measured data about dangers. The core elements of the web-GIS system form three modules to support situation management (interactive situation map), information management (dispatching of instructions/announcements) and resource management (management of all reactionary resources).

deNIS II is connected to all important decision makers and actors within the disaster management system. This builds a network in the area of civil protection and emergency services that also includes official authorities (Federal Government – Federal States – Communities) to support crisis management during extreme dangers and disaster/damage situations in Germany. An automatic review and feedback process are conducted and the integration of current measured values (radioactivity, weather data and water levels) is currently in progress. Additionally, the BBK operates the “German Joint Information and Situation Centre of the Federal Government and Laender” (GMLZ: see link), which provides information for the Federal States (Laender) and government as well as organisations in large-area damage situations or other circumstances of national importance.

In an extreme hazard situation the “Federal Agency for Technical Relief” (THW: see link) can offer, for example, its professional section “Guidance and Communication” (Führung und Kommunikation). This group can assure the guidance of its own and other forces during a disaster through its mobile command centre and facilities. After every event the event log is used to generate a lessons-learned review.

The flood management centres and registration/information services in Germany are well positioned and held in high esteem and looked upon positively by the public. The website www.hochwasserzentralen.de (see the link below) offers shortcuts to all flood management centres and services in Germany and neighbouring countries with water levels and dangers. In the case of a flood the responsible authorities, fire brigades and citizens` groups are interlinked through the flood management centres, emergency plans, call lists and flood information systems.

In the case of an international disaster, the “Federal Foreign Office” (AA) takes charge of coordinating German emergency assistance through its crisis and reaction centre as well as with special meetings of the coordination group for humanitarian assistance. The AA also works together with other departments and organizations and participates very actively in the “European Commission’s Humanitarian Aid Office” (ECHO: see link) and others such as the “United Nations Office for the Coordination of Humanitarian Affairs” (OCHA).

Context & Constraints:

The homogenisation of the data necessary for the integration of the systems is tedious, therefore the BBK and the responsible authorities in the Federal States aim to build interfaces between these different systems in the near future.

For official flood protection/management, the reduction of qualified staff and especially the use of different systems create challenges, for example, in disseminating relevant information in a hazard situation to all actors. In the opinion of most flood management centres, there has to be a uniform system on the Federal State or even national level.

Due to the non-existent requirement for a collective post-event review, there are a variety reviews and evaluation reports by the individual organisations and authorities. This is not a negative assessment, although it can be a challenge to acquire a clear overview.

Related links:

deNIS <http://www.denis.bund.de/>

ECHO http://ec.europa.eu/echo/index_en.htm

THW http://www.thw.bund.de/cln_035/nn_244766/EN/content/home/home__en__node.html__nnn=true

Overview Flood Management Centres <http://www.hochwasserzentralen.de/>

Drivers of Progress

a) Multi-hazard integrated approach to disaster risk reduction and development

Levels of Reliance:

Partial/ some reliance: Full acknowledgement of the issue; strategy/ framework for action developed to address it; application still not fully implemented across policy and practice; complete buy in not achieved from key stakeholders.

Do studies/ reports/ atlases on multi-hazard analyses exist in the country/ for the sub region?:

Yes

If yes, are these being applied to development planning/ informing policy?:

Yes

Description (Please provide evidence of where, how and who):

It can be argued that one of the current core drivers for multi-hazard approaches are the different strategies for adaptation to climate change. There is the official national “German strategy of adaptation to climate change” (DAS: see Strategic Goal 1 and Priority 4) (under development) and the approaches to critical infrastructure of the “Federal Office for Civil Protection and Disaster Response” (BBK). In addition, approaches from Priority 3 should be specified as drivers, such as the deNIS-system of the BBK or, most importantly, the different capacities of the “German Meteorological Service” (DWD: see link) to provide extensive weather forecasts and data and to warn the public and the relevant authorities comprehensively in the case of an extreme weather event. Its risk maps for certain extreme weather conditions or the Risk Explorer of the “Center for Disaster Management and Risk Reduction Technology” (CEDIM: see links) equally qualify as multi-hazard approaches. The German scientific landscape and the “German Committee for Disaster Reduction” (DKKV) act as the main drivers of the progress to integrate the different approaches for DRR in the different areas of natural disaster risk into one functioning multi-hazard-system.

On the level of the Federal States (Laender) several strategies to climate change were adopted (see examples in the links below) and the Federal Act to Improve Preventive Flood Control (see link) from May 2005 could count as a multi-hazard approach to DRR on the local level. Also the trainings of the (voluntary) fire brigades, the “Federal Agency for Technical Relief” (THW) and other organisations for diverse hazards are very important. With the different systems described in this report, an integrated multi-hazard approach will take time but is developing currently.

For international cooperation and humanitarian assistance, the strategies of the Federal Government, the “Federal Foreign Office” (AA: see annexes), “The European Consensus on Humanitarian Aid” and the Hyogo framework itself play the main role. Within the German development cooperation, the multi-hazard approach is particularly important at the local level. It identifies the existing dangers in risk analyses and aims to support the community in a way that enables it to accomplish the necessary DRR measures independently. Among certain conditions the German development cooperation uses single-hazard approaches to better avoid unnecessary complexity, though this does not challenge the benefits of multi-hazard approaches. The German strategies for development-oriented disaster reduction can be found on page 55 of the recently published GTZ-manual on “Climate Change and Security” (see annex).

Supporting document:

Climate Change and Security (2008)

http://www.preventionweb.net/files/2967_gtz2008enclimatechangesecurity.pdf [PDF 2.36 MB]

Leitlinien AA [http://www.preventionweb.net/files/2967_katastrophenvorsorgegrundsatzleitlinien\[2\].pdf](http://www.preventionweb.net/files/2967_katastrophenvorsorgegrundsatzleitlinien[2].pdf) [PDF 19.26 KB]

Katastrophenvorsorge des AA [http://www.preventionweb.net/files/2967_AA\[2\].pdf](http://www.preventionweb.net/files/2967_AA[2].pdf) [PDF 28.83 KB]

Related links:

KomPass - Overview

http://www.anpassung.net/nn_700710/DE/Fachinformationen/RegionaleStudien/regionaleStudien__node.html?__nnn=true

CEDIM - Risk Explorer <http://dc108.gfz-potsdam.de/website/riskexp/viewer.htm>

DWD - Warning

http://www.dwd.de/bvbw/appmanager/bvbw/dwdwwwDesktop?_nfpb=true&_windowLabel=dwdwww_main_book&switchLang=en&_pageLabel=dwdwww_wetter_warnungen_book

DWD

http://www.dwd.de/bvbw/appmanager/bvbw/dwdwwwDesktop?_nfpb=true&_windowLabel=dwdwww_main_book&switchLang=en&_pageLabel=dwdwww_start

Federal Act to Improve Preventive Flood Control

<http://www.bmu.de/files/pdfs/allgemein/application/pdf/hochwasserschutzgesetz.pdf>

German strategy of adaptation to climate change

http://www.anpassung.net/cln_117/nn_701050/DE/Aktuelles/Publikationen/publikationen__node.html?__nnn=true

Bavaria http://www.bayceer.uni-bayreuth.de/bayceer/de/pub/pub/59022/stmugv_app000000.pdf

North Rhine-Westphalia

http://www.umwelt.nrw.de/ministerium/presse/presse_extra/pdf/klimawandel/klimawandel_anpassungsstrategie.pdf

Rhineland-Palatinate

<http://www.landtag.rlp.de/Internet-DE/nav/3d5/broker.jsp?uMen=51340abc-137f-5511-33e2-dcbf983c6eac>

b) Gender perspectives on risk reduction and recovery adopted and institutionalized

Levels of Reliance:

Partial/ some reliance: Full acknowledgement of the issue; strategy/ framework for action developed to address it; application still not fully implemented across policy and practice; complete buy in not achieved from key stakeholders.

Description (Please provide evidence of where, how and who):

Although there is gender equality by law, also in terms of career choice, women are not equally integrated in the appropriate organizations of disaster management due to previous regulations and traditions. This is changing through approaches to give the enlistment of women preference. One example can be found in the voluntary fire brigades, which try to attract more female volunteers with their recruitment campaigns. All organizations and authorities recognize gender equality to be the universal guiding principle for all their actions. Through the equality of both genders by law there is not a real difference in vulnerability or preparedness for disasters.

The German development cooperation integrates gender aspects as a cross-cutting principal in all its projects. Women play an important role in DRR. Not only do they often belong to the most susceptible personal groups, considering they are not as equally integrated into official communication mechanisms as men, but also because they make a substantial contribution to the creation of a culture of resilience. Often they are responsible for the education of children, giving them the opportunity to teach disaster preventive behaviour to younger generations. Stay-at-home mothers, for example, are more actively integrated into local early warning systems. Because the everyday lives of men and women can differ greatly, the often unique perspective that women offer include an indispensable perspective to emergency and evacuation plans.

c) Capacities for risk reduction and recovery identified and strengthened

Levels of Reliance:

Partial/ some reliance: Full acknowledgement of the issue; strategy/ framework for action developed to address it; application still not fully implemented across policy and practice; complete buy in not achieved from key stakeholders.

Description (Please provide evidence of where, how and who):

Capacity development for DRR is integrated in various responses to the Priorities above, as well as the different training methods and further development of technical capabilities of the individual organizations and local and federal authorities essential to meeting the goals of the Hyogo Framework for Action.

The “Federal Ministry of the Interior” (BMI) has emphasized the importance of further development in DRR by its “New Strategy for the protection of the German population” and the integrated foundation of the “Federal Office for Civil Protection and Disaster Response” (BBK: see links) in May 2004. The BBK has continued this new strategy through the agenda development explained in Priorities 2-5: Critical Infrastructure Protection, Vulnerability Indicators, the “German Emergency Planning Information System” (deNIS) and the “German Joint Information and Situation Centre of the Federal Government and Laender” (GMLZ: see links). Other national authorities such as the “Federal Ministry for the Environment, Nature Conservation and Nuclear Safety” (BMU) with its central “Federal Environment Agency” (UBA) also carry out the development of DRR-related strategies, such as the continuously-mentioned “German strategy of adaptation to climate change” (Deutsche Anpassungsstrategie: DAS) of the “Competence Centre on Global Warming and Adaptation” (KomPass: see links). Strengthening of DRR-capacities is also integrated in the conceptual enhancements of the “German Meteorological Service” (DWD: see Priority 2).

Technology transfer and information exchange work through all levels, both vertically and horizontally, as described in Priorities 2 and 3. Here, the “German Committee for Disaster Reduction” (DKKV: see link) and the German civil society as a whole play an important role to spread information and awareness about DRR.

At the highly important lower levels, the local authorities and organisations, especially the oft-cited voluntary services such as the fire brigades or the THW, but also including the emergency services such as the Red Cross, have already developed strong capacities for disaster response, recovery and DRR, while they consistently develop new approaches to maintain and deepen these.

At an individual level it is difficult to achieve a uniform resilience due to the German subsidiarity as described in Priority 1 and the individual responsibility for personal property as described in Priorities 2 and 4, though there is traditionally a local sensibility for natural dangers as well as in-grained preparedness through the culture of voluntary services as described in Priority 1 Core Indicator 3.

The “Federal Foreign Office” (AA) and the German development cooperation systematically develop and carry out approaches to advance and strengthen capacities in partner countries. The German development cooperation is accepted internationally as a partner for DRR and disaster preventive rehabilitation. Although its capacities are still not fully developed, the German development cooperation sees this fact especially as the driver to strengthen these in its future efforts.

Related links:

DKKV <http://www.dkkv.org/>

BMU <http://www.bmu.de/english/aktuell/4152.php>

UBA <http://www.umweltbundesamt.de/index-e.htm>

KomPass - DAS

http://www.anpassung.net/nn_700470/DE/Aktuelles/Termine/2008/Termin__080827-28/termin__080827-

28.html?__nnn=true

GMLZ

http://www.bbk.bund.de/nn_402322/DE/02__Themen/05__Krisenmanagement/03__GMLZ/GMLZ__node.html__nnn=true

deNIS <http://www.denis.bund.de/>

BBK http://www.bbk.bund.de/cln_027/nn_402322/DE/01__BBK/BBK__node.html__nnn=true

BMI

http://www.bmi.bund.de/cln_028/nn_148130/Internet/Navigation/EN/Homepage/Home.html__nnn=true

d) Human security and social equity approaches integrated into disaster risk reduction and recovery activities

Levels of Reliance:

Partial/ some reliance: Full acknowledgement of the issue; strategy/ framework for action developed to address it; application still not fully implemented across policy and practice; complete buy in not achieved from key stakeholders.

Description (Please provide evidence of where, how and who):

As described in Priority 4 Core Indicator 2, changes have occurred in the effects of natural hazards and our vulnerability to them, which is due to social development, urbanization and the accompanying changes in agriculture and forestry. There are, however, social safety nets and legal obligations in place that can absorb parts of the aftermath or at least provide approaches to insure property against hazards. Moreover, the German government has a duty to care economically for the most affected groups and ensure their social safety.

The drivers of progress in the area of financial buffers to reduce economic vulnerability are economical analysts, insurers and the Federal States (Laender) of Baden-Württemberg, Bavaria and Hamburg, which demand universal compulsory coverage against natural hazards. Protection of critical infrastructure, which also reduces the vulnerability of the most affected groups, has become one of the key activities in DRR, for example, for the BBK (see Priority 2 Indicator 1).

The “Federal Foreign Office” (AA) aims to improve DRR in vulnerable societies through its guidelines for the promotion of DRR in foreign countries and, as a result, promotes the integration of sustainable DRR in national policies of partner countries. Concerning social development, the German development cooperation directly promotes the participation of affected persons, especially those of susceptible population groups, through its strategies of sustainable development.

e) Engagement and partnerships with non-governmental actors; civil society, private sector, amongst others, have been fostered at all levels

Levels of Reliance:

Significant and ongoing reliance: significant ongoing efforts to actualize commitments with coherent strategy in place; identified and engaged stakeholders.

Description (Please provide evidence of where, how and who):

The German DRR- and Disaster Management System works to overcome the division of labour between state and private actors for the sake of cooperation. The governmental federal and national forces and the non-governmental/civil society forces work together in the case of an emergency as well as in the various preparedness and reduction activities. The national forces such as the Ministries and agencies work together with the private organisations or provide mandates for them. This encompasses all areas of DRR and the “German Committee for Disaster Reduction” (DKKV: see link) attempts to bring them together in its different assemblies.

In the field of scientific research and precaution, the public universities, private research institutes and governmental authorities cooperate, as in the case of the “German strategy of adaptation to climate change” (DAS: see Priority 4) or the civil protection research projects of the “Federal Office for Civil Protection and Disaster Response” (BBK), in which not only the private institutes are involved but also private aid or emergency organizations.

On a local level various connections between local authorities, the fire brigades, emergency services, local associations and NGOs as well as the private sector exist. Larger firms have their own fire brigades and emergency services, which also assist in major incidents. In direct cooperation, for example, the governmental “Federal Agency of Technical Relief” (THW: see link), the communal fire brigades and the different private relief/emergency services such as the Red Cross (DRK), Malteser Germany or the Workers` Samaritan Federation Germany (ASB) (see links) work together in extreme hazard situations. In the absence of a disaster, they work towards collective practices or carry out education campaigns.

Cooperation between state authorities, civil society and the private sector (above all civil society and the scientific world) ensure that DRR reaches a higher profile.

The German development cooperation has recognized that the integration of such a variety of partners helps to anchor a culture of resilience and ensure coherence. Therefore, the German development cooperation works together with different actors (NGOs, civil society, private sector). In cooperation with the private sector (e.g., the insurance industry, building material suppliers) there remains a great deal of potential to be realised. Like the “Federal Ministry for Economic Cooperation and Development” (BMZ), the “Federal Foreign Office” (AA) works together with NGOs on a large scale, in its task force and coordination group for humanitarian assistance with CARE Germany or Doctors Without Borders, among other initiatives.

Related links:

ASB <http://www.asb.de/view.php3?show=5100005900162>

Malteser <http://www.malteser.de/default.asp>

DRK <http://www.drk.de/>

Deutscher Feuerwehrverband <http://www.dfv.org/>

THW http://www.thw.bund.de/cln_036/nn_244766/EN/content/home/home__en__node.html__nnn=true

DKKV <http://www.dkkv.org/>

f) Contextual Drivers of Progress

Levels of Reliance:

Partial/ some reliance: Full acknowledgement of the issue; strategy/ framework for action developed to address it; application still not fully implemented across policy and practice; complete buy in not achieved from key stakeholders.

Description (Please provide evidence of where, how and who):

DKKV itself brings together actors from all areas of DRR in its assemblies and meetings, conferences and projects, which is why it functions as one of the main drivers for networking in DRR.

Future outlook

Area 1

The more effective integration of disaster risk considerations into sustainable development policies,

planning and programming at all levels, with a special emphasis on disaster prevention, mitigation, preparedness and vulnerability reduction.

Overall Challenges:

The challenges are two-fold: first, there are areas to improve in the existing disaster prevention and management system, then there are challenges that will result from future long-term changes, both in vulnerability and external conditions such as climate change. To cope with these challenges several strategies can be pursued. The biggest challenge in the Strategic Goal Area, as explained in Section 1, lies in the area of resilience on all levels by the build-up of regulatory frameworks (top-down) and especially in strengthening awareness and consciousness in the German population (bottom-up). This generally entails enhancing awareness and sensitivity to natural hazards and integrating all aspects of sustainable development with a special focus on a local communal level to improve individual willingness and ability to prepare individuals and households for hazardous events.

This also has to be considered in the case of the “German strategy of adaptation to climate change” (Deutsche Anpassungsstrategie: DAS), as not only research efforts and political planning are needed, but also efforts to increase awareness in the population. The “Federal Ministry for the Environment, Nature Conservation and Nuclear Safety” (BMU) promotes these, for example, through campaigns and appropriate information materials. One issue, however, is that natural disasters are only perceived as a key issue when they occur and DRR is not yet a main focus of German policy. As a result, the major challenge is the integration of this topic into public consciousness. As a result, DRR is to be addressed simultaneously in many diverse political and administrative structures, for that reason, however, posing a major challenge.

The challenges for the German development cooperation lie primarily in the fact that DRR is not a main topic due to its cross-cutting nature and consequentially it must compete with other pertinent issues for attention, operational readiness and financial resources. But the integration of DRR is recognised as a necessary strategy for long-term development cooperation and planning. Therefore it has to be integrated into standard documents and methods as well as the financial budget as a separate topic, as it is currently financed mainly through emergency aid.

Future Outlook Statement:

The challenges as outlined above need to be addressed from many angles in accordance with the cross-cutting nature of DRR, including federal approaches as well as strictly local ones based on private initiatives. Concrete projects and programs were discussed in Section 1, Strategic Goals. The overall goals of German DRR strategies are the adaptation to climate change, which will be a long-term challenge, and complying with the diverse international (especially EU) strategies. One of the future goals is certainly the implementation of the HFA.

From an international point of view the overall future goal is to strengthen local resilience and to decrease local vulnerability. This bottom-up approach should be a central focus of DRR in the development cooperation, poverty reduction and the crosscutting integration of DRR in all programmes and projects. The “Position Paper of the Federal Government on Disaster Reduction in Foreign Countries” recognises DRR in partner countries as one of the main topics for humanitarian aid, development-oriented emergency aid and development cooperation. It determines DRR as one of the most important future issues for sustainable development and for the protection of the previously accomplished developmental benchmarks.

The official guidelines of the “Federal Foreign Office” (AA) is one example of a pre-existing strategy allowing these aspects to be embedded in all areas of humanitarian assistance, development-oriented emergency aid and development cooperation, especially in countries at high risk. This strategy is in line with the “European Consensus on Humanitarian Aid” which provides a common vision that guides the

action of the EU, both at the Member State and Community levels, in humanitarian aid in third-party countries.

For the German development cooperation DRR will become more and more relevant during the next years due to an increasing disaster risk in developing countries. Consequently, the long-term aim is the ability of the affected countries to mitigate and respond to disasters more independently. Therefore regular disaster risk assessments and analyses of endangered countries and regions are planned along with the adaptation of the aforementioned challenges. The German development cooperation has recognised the need of DRR for sustainable development.

Area 2

The development and strengthening of institutions, mechanisms and capacities at all levels, in particular at the community level, that can systematically contribute to building resilience to hazards.

Overall Challenges:

As already made clear in Section 1, the cross-cutting nature of any DRR approach enforces multidisciplinary/multistakeholder approaches. Specifically this means that many aspects have to be considered, as also mentioned in Section 1.

Resilience relies on three pillars: long-term prevention, early warning and disaster response. Long term prevention is prevalingly based on top-down mechanisms, such as federal legal frameworks, codes, information systems, co-financing measures/projects of other administrative levels, establishing research programs, coordinating capacity building in DRR. At the national level there are various adaptation strategies and efforts to strengthen institutions and capacities for DRR, such as the “New Strategy for the protection of the German population” (see Section 1 for a full overview) or the approaches of the “Federal Office for Civil Protection and Disaster Response” (BBK) to protect critical infrastructure.

The bottom-up approaches work complementarily. The German administrative structure begins with the Laender and comprises very local/household-oriented structures, in which the NGO/private organisations are of enormous importance. The communal authorities have a duty to keep the local actors prepared and strengthen their institutional capacities. Nevertheless, there are some challenges in finding a common approach to the various tactics, techniques, and the management of local, regional and national levels between the variety of actors from the state and civil society.

From an international perspective, the development of methods and instruments to strengthen the institutions and capacities in partner countries of the German development cooperation is the main challenge for future strategies. In every country, responsibilities are regulated differently based on the project level and degree of decentralization. Generally transferable principles must be identified and inferred with situation-specific attempts, as there are no real blueprints to follow. Disaster reduction must contribute to the stabilization of the development process in partner countries, which is why Capacity Building plays a determining role in the strategies of the German development cooperation today as well as in its future work.

Future Outlook Statement:

The German DRR is constantly developing and its institutions are strong and reliable. There are some challenges that have to be treated in the further institutionalisation of DRR. Through the “German strategy of adaptation to climate change” (Deutsche Anpassungsstrategie: DAS) and other strategies (such as the different EU-papers and an increasing attention to DRR in German foreign policy and development cooperation), the public authorities and the population are becoming more sensitised and resilient. DAS also aims at strengthening institutional capacities such as through “Climate Service Centres” and the public resilience to hazards. This also has to be increased through concrete and active

strategies for DRR, which rely on several institutions, each with its own legal framework. This results in sectorial strategies and efforts to strengthen institutions and capacities for DRR. Therefore the recent cooperation between federal authorities has to be further strengthened in order to improve DRR-capacities.

In order to achieve DRR, a multidisciplinary/multistakeholder strategy is necessary as a result of the cross-cutting nature of DRR. This means the integration of DRR aspects in both top-down and bottom-up approaches to disaster prevention, early warning and disaster response, including increasing resilience and awareness, decreasing vulnerability and exposing hazards on all levels, globally to locally. Any systematic approach to this goal comprises planning and implementation of adaptation strategies, and the entire spectrum of development cooperation. The increasing awareness of threatened populations as well as political decision-makers will be a precondition for all sustainable disaster reduction efforts.

Area 3

The systematic incorporation of risk reduction approaches into the design and implementation of emergency preparedness, response and recovery programmes in the reconstruction of affected communities.

Overall Challenges:

The challenge remains, however, that there is almost no comprehensive planning tool/law that includes all sectors of DRR in a more “centralised” manner. The decentralised system works in a sophisticated fashion in most situations, including risk reduction approaches for the entire system, but cooperation between the diverse actors is sometimes difficult and must be further improved.

The aim and at the same time the largest challenge of international cooperation is the integration of DRR in emergency aid without diminishing the speed of reaction. This can succeed only if procedures are standardized and, above all, the necessary data exists for the subsequent phases to be based upon.

Future Outlook Statement:

The Federal Government considers DRR to be one of the main challenges of the future in its “Position Paper of the Federal Government on Disaster Reduction in Foreign Countries”, while the European Union Strategy for Disaster Risk Reduction points to an advanced development of DRR in the near future. In this manner the Federal Government and the European Union should develop an improved network of DRR exchange. Therefore the cross-cutting issue of climate change can be used as a central focus.

The official strategy of the “Federal Foreign Office” (AA) aims, beside strengthening the political process, at reducing disaster risk through the integration of DRR in the mechanisms of humanitarian assistance and through “upstream” projects that minimize the need for assistance and disaster response.