German Red Cross
National Headquarters
International Cooperation

German Red Cross

GRC – International Cooperation

International Disaster Risk Reduction and Climate Change Adaptation at the German Red Cross

Analysing present and future natural hazards, reducing disaster risks, preparing people to respond

International Disaster Risk Reduction and Climate Change Adaptation at the GRC

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Introduction

The impact of disastrous natural events has again and again caused enormous human suffering and posed enormous challenges for emergency response and recovery. Within just a few hours or even minutes, tropical windstorms (hurricanes, cyclones or typhoons), floods, volcanic eruptions, earthquakes or tsunamis have killed or injured tens of thousands of people, destroyed their homes, or set the economic development of an area or a whole country back several decades.

Beside major disasters, a wide range of small-scale extreme events, such as landslides, may also apt to cause significant and repeated damage until people become aware of natural hazards and prepare themselves appropriately for the events they may trigger.

Today, ninety-seven per cent of all deaths caused by extreme natural events occur in developing countries. The last decades have seen a sharp rise in the number of disastrous natural events and in the numbers of people they hit as well as the economic damage they wrought. The trend continues, with more than 200 million people now affected by natural disasters every year (cf. International Federation of Red Cross and Red Crescent Societies 2009: World Disaster Report 2009).

This has a considerable impact on people's chances of survival, their living conditions and their dignity, all the more so if they are poor and belong to disadvantaged groups in less developed countries.

Man-made climate change is exacerbating this problem as it comes with an increase in extreme weather events such as torrential rains, floods or heat waves and rising sea levels. This amplifies the risks, particularly for communities living in less developed countries, where people's scope of action for adapting to this threat is severely restricted by poverty.

People in developing countries are particularly threatened by extreme natural hazards and climate change.
Picture: GRC 2009

The German Red Cross (GRC) is part of the worldwide Red Cross and Red Crescent Movement, whose components are the International Committee of the Red Cross (ICRC), the International Federation of Red Cross and Red Crescent Societies (Federation), and presently 188 recognized National Red Cross or Red Crescent Societies (National Societies). The Geneva Conventions and their Additional Protocols provide an international legal basis for the Movement, with the ICRC, in particular, endowed with a mandate of the international community to act as the guardian of international humanitarian law.

The GRC and the other recognized National Societies derive their specific mandate and tasks from the Geneva Conventions and their Additional Protocols as well as the resolutions of the International Red Cross and Red Crescent Conferences, which are attended by delegations of the National Societies, the ICRC and the Federation as well as representatives of the states parties to the Geneva Conventions.

International Disaster Risk Reduction and Climate Change Adaptation at the GRC

Introduction

National Societies have the role of voluntary auxiliaries in the humanitarian services of their governments, including emergency aid in response to disasters. However, their aid must always be delivered in compliance with the fundamental principles of the Red Cross and Red Crescent Movement. This implies respecting the neutrality, impartiality and independence of every National Society.

The GRC's legal status and mandate in Germany are enshrined in the so-called *German Red Cross Act*, in effect since 2008. The federal government thus recognized the GRC as auxiliary to the German authorities in the humanitarian field.

In Germany, the GRC has developed a so-called complex assistance system in order to ensure health services and care for the country's residents. This system comprises emergency medical services, medical care for the ill, social care for vulnerable people, aid to children and youth, and many other elements. The GRC integrates these multifaceted services into a coherent whole, with a view to effective and needs oriented management of emergencies, damage situations and disasters.

As part of and in consultation with other components of the Red Cross and Red Crescent Movement, the GRC also participates in a large number of **humanitarian aid and development programmes and projects** in currently more than 45 countries of the globe.

Such programmes and projects are always run in cooperation with the National Red Cross or Red Crescent Society on site. Their aims are to help those affected by disaster or conflict according to their needs and to support the most vulnerable groups of the community (particularly women and children) in improving their living conditions. The GRC moreover promotes civil society in partner countries by contributing to the structural development of the National Society on site, in order to enable them to respond more effectively to the needs of their own community.

The GRC focuses on sustainable development which empowers communities to access primary health care, safe drinking water and food. It contributes to poverty reduction in order to reduce communities' vulnerability and increase their resilience. The GRC feels that taking action when disaster strikes is not enough.

Measures designed to avoid or limit disastrous impacts and to adequately prepare vulnerable communities must be taken **before extreme natural events occur.**

The GRC's response to the sometimes complex natural hazards of today and tomorrow is based on its track record and long experience in humanitarian aid and development cooperation. This response includes Disaster Risk Reduction (DRR) and supporting the institutional development of National Societies with the aim to avert and mitigate human suffering.

Though extreme natural events will keep occurring in the future, they need not necessarily have disastrous impacts on the affected communities, provided that communities are properly prepared. This brochure introduces the GRC's approach and experience in the field of Disaster Risk Reduction (DRR) and Climate Change Adaptation (CCA).

Basis and scope of Disaster Risk Reduction

People usually call it a disaster when an extreme natural event such as an earthquake or floods have caused a *'serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources'* (UNISDR 2009). A community hit by such a disaster will depend on national or international relief.

However, a **natural event** can only trigger a disaster if it happens where a community is vulnerable. **Vulnerability** to disasters is caused by numerous societal conditions and factors which exacerbate a community's exposure to hazards. Physical factors (such as unsafe building practices), economic factors (such as poverty and malnutrition), social factors (such as insufficient school education) and environmental factors (such as polluted soils) all have a major influence on people's vulnerability to **disasters.**

Highly vulnerable communities first lack ways and means to protect themselves from the adverse effects of extreme natural events. Second, they need substantially longer to recover from the impact of any disaster.

Practitioners of humanitarian aid and development cooperation have long started distancing themselves from the view that the sometimes disastrous impact of natural events cannot be avoided. The local environment with specific socio-economic and cultural factors has a crucial role in exacerbating or mitigating such impacts. GRC work takes these factors into account. Having recognized that communities in less developed countries face higher risks than others, the GRC makes provision for diverse vulnerabilities when planning activities, projects or programmes.

According to the Federal Ministry for Economic Cooperation and Development (BMZ), *'Disaster Risk Reduction comprises the whole systematic and conceptual framework of measures that are closely linked to each other and that are taken before a natural hazard occurs with the aim of limiting or avoiding adverse impacts of a natural event on society'* (BMZ 2010).

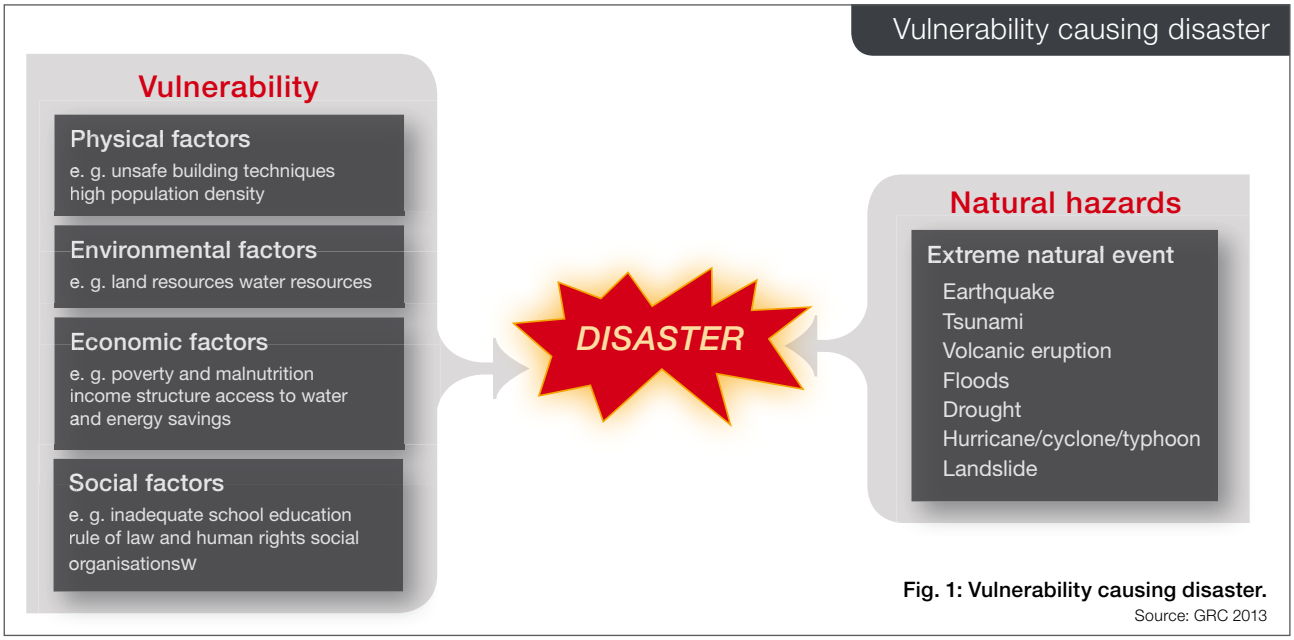

Fig. 1: Vulnerability causing disaster.
Source: GRC 2013

International Disaster Risk Reduction and Climate Change Adaptation at the GRC

Basis and scope of Disaster Risk Reduction

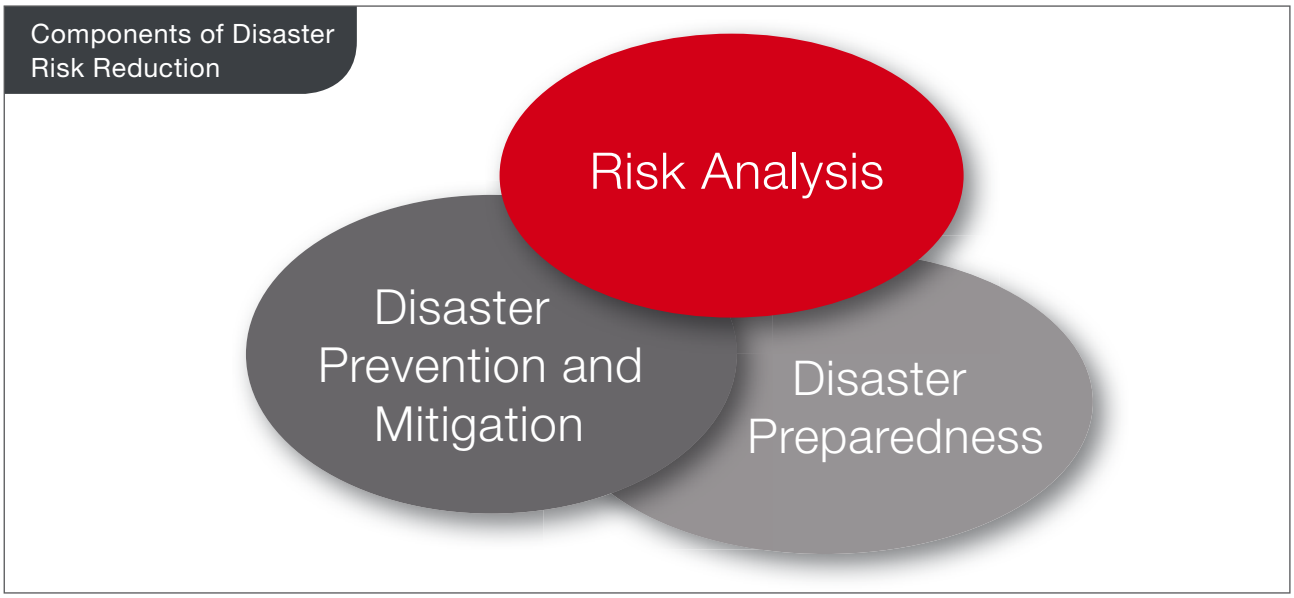

Fig. 2: Components of Disaster Risk Reduction.
Source: GRC 2013

DRR aims to reduce existing vulnerabilities while building communities' capacity to help themselves.

Overall, DRR operates in three main areas:

- **Risk analysis:** Assessment of the existing natural hazards, vulnerabilities and capacities available in the community.
- **Disaster Prevention and Mitigation:** Structural and non-structural activities designed to avoid or reduce damage and loss caused by future disasters. Such activities range from the protection of unstable slopes to raising awareness of potential disaster risks among those concerned.
- **Disaster Preparedness:** Activities designed to effectively prepare communities at risk and strengthen their response capacity. This will include building early warning systems, developing community action plans for emergencies or training search and rescue teams.

The complex international issues and hazards the world is facing today require aid agencies to adopt a holistic approach. The GRC therefore considers it essential to respond during and in the aftermath of disasters but particularly also to intervene beforehand. The different DRR components have thus been identified as priority tasks for international GRC cooperation.

The GRC sees it as part of its mission to support National Societies on site in reducing disaster risks and vulnerabilities. These National Societies act as experienced local partners. They are usually involved in their country's DRR services.

Sustainable long-term DRR programmes are expected to also build local DRR capacities, thereby significantly reducing the need for future relief interventions.

The GRC is running DRR programmes all over the world. DRR components have a key role in GRC cooperation in Asia, Africa and Latin America, cutting across disaster management and as a key sector of development cooperation.

Disaster Risk Reduction in international context

The United Nations already highlighted the importance of DRR in the last century by proclaiming the 1990s as the International Decade for Natural Disaster Reduction – IDNDR. Germany was among the many countries which formed an IDNDR committee at the time. After the end of the decade, this committee was renamed **German Committee for Disaster Reduction (DKKV).**

Today, the DKKV supports the interaction between German DRR research and field work. It promotes innovation and contributes to knowledge transfers, social dialogue, awareness raising among the public and the development of community-based response structures. The GRC played a decisive role in the foundation of the German IDNDR Committee and is represented in the DKKV's managing committee and its operational advisory board.

On the international level, some important initiatives aimed at enhancing DRR came into being after the end of the international decade. One of the most important and recent contributions is the ***Hyogo Framework for Action 2005 – 2015.*** It reflects the results of the World Conference on Disaster Reduction held in Kobe (Hyogo Prefecture) in January 2005 and was a significant step for the mainstreaming of DRR into sustainable development policy (cf. UNISDR 2005).

Hyogo Framework for Action 2005 – 2015

Five priorities for action to reduce disaster risks

1. Ensure that Disaster Risk Reduction is a national and a local priority with a strong institutional basis for implementation.
2. Identify, assess and monitor disaster risks and enhance early warning.
3. Use knowledge, innovation and education to build a culture of safety and resilience at all levels.
4. Reduce major underlying risk factors by taking for example the state of the environment, land use planning and climate change into account when designing development and rehabilitation programmes.
5. Strengthen disaster preparedness for effective response at all levels.

International Disaster Risk Reduction and Climate Change Adaptation at the GRC

Disaster Risk Reduction in international context

Climate change brings on more frequent extreme weather events such as here in Haiti. The relevance of Disaster Risk Reduction thus continues increasing.
Picture: GRC 2008

The international community has identified DRR as a long-term global task to be taken seriously, and its importance keeps increasing, for instance in the **context of international climate negotiations.**

Published in early 2007, the fourth assessment report of the Intergovernmental Panel on Climate Change (IPCC) summarised the findings of independent climate researchers made in almost 20 years. The report showed that anthropogenic greenhouse gas emissions would lead to global warming, rising sea levels and an increase in the frequency and intensity of extreme weather events. It also made clear that climate change is already under way and not just a problem of the future (cf. IPCC 2007a, b and c).

As a result, the 13th Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC), held in Bali at the end of 2007, highlighted the importance of DRR in order to adapt to unavoidable effects of climate change.

The significance of DRR as an essential contribution to the adaptation to climate change was emphasized again at the end of 2011, when the IPCC published a *Special Report on Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation (SREX).* This report elaborates on the importance of early warning systems as a tool to improve adaptation to increasingly frequent extreme weather events, among other issues (cf. IPCC 2012).

International Disaster Risk Reduction and Climate Change Adaptation at the GRC

Disaster Risk Reduction as a cross-cutting theme

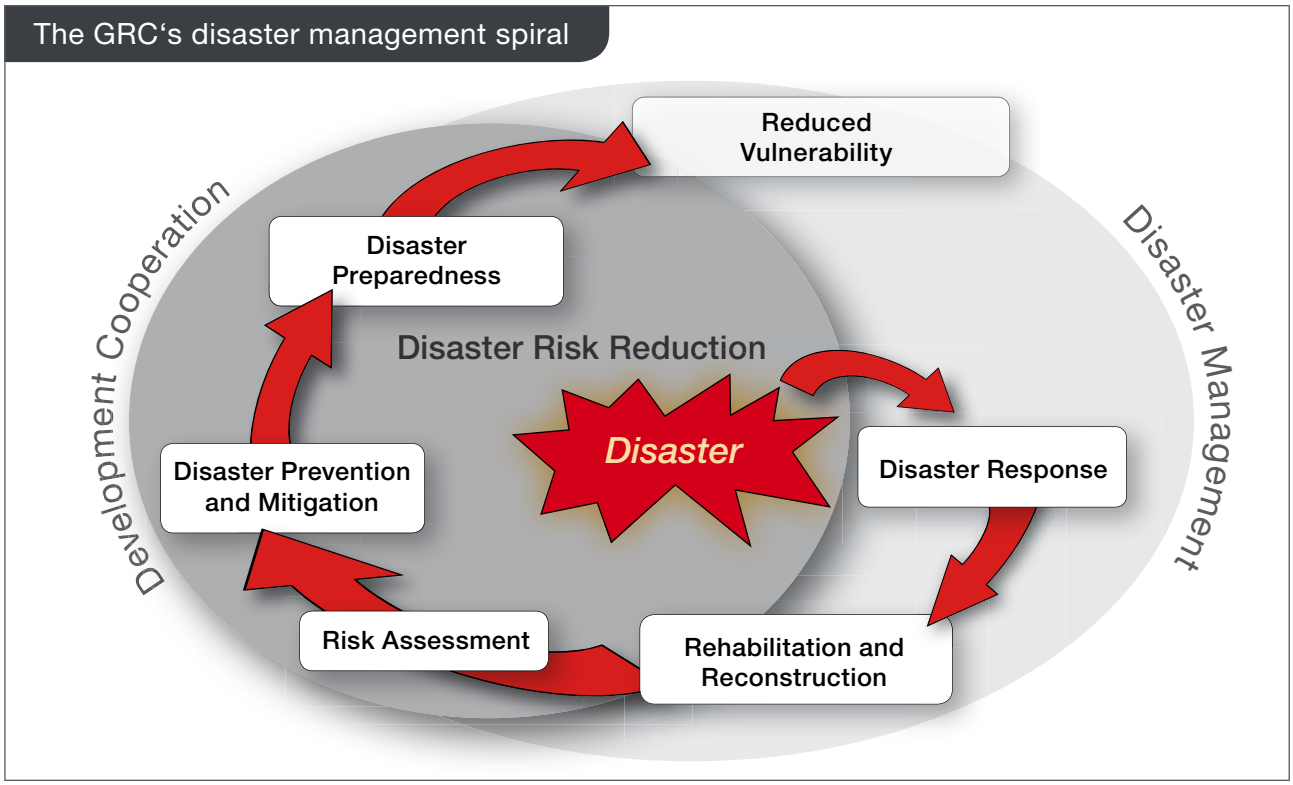

Fig. 3: The GRC‘s disaster management spiral.
Source: GRC 2013

Disaster Risk Reduction as a cross-cutting theme in disaster management provided by the GRC

The GRC‘s disaster management aims to support conflict victims and people affected by disasters according to their needs by responding to disasters or emergencies and to deliver community-based social services within its aid to recovery.

Cutting across the emergency response and the aid to recovery delivered in close cooperation by National Red Cross and Red Crescent Societies on site, vulnerable communities and the GRC, DRR has gained more and more importance in recent years. According to the approach known as *Linking Relief, Rehabilitation & Development (LRRD)*, a framework for subsequent sustainable development should be provided from the very first moment of an emergency response.

DRR can be integrated into the LRRD approach early, as a link, with the aim to build communities‘ self-help capacities as soon as possible and to help particularly vulnerable groups such as women, children and elderly people reduce their vulnerability to disasters – as the one experienced very recently.

International Disaster Risk Reduction and Climate Change Adaptation at the GRC

Disaster Risk Reduction as a cross-cutting theme

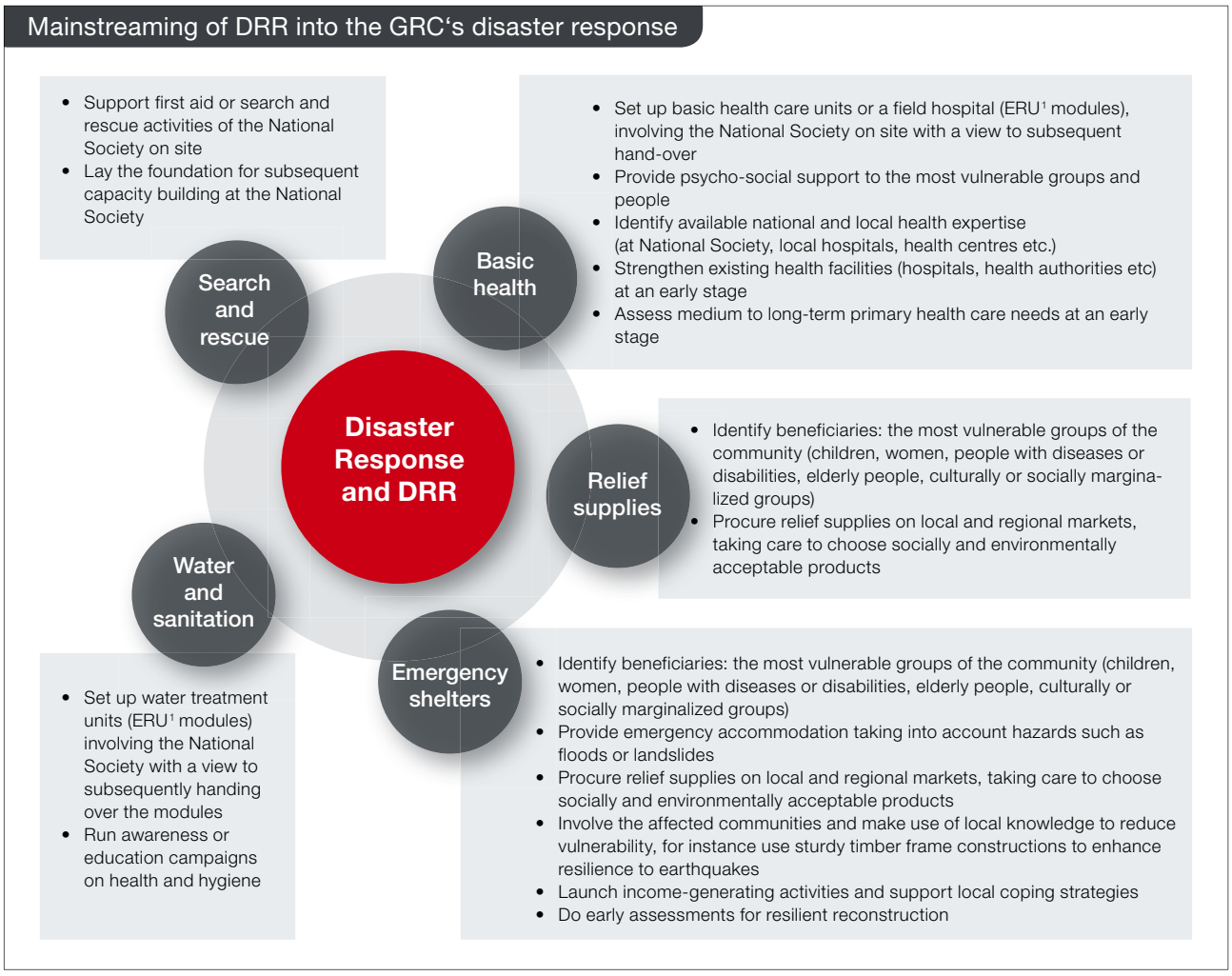

Fig. 4: Mainstreaming of DRR into the GRC‘s disaster response – some examples.
Source: GRC 2013

This can be done by involving the survivors of a disaster in the response as soon as possible, by means of participatory processes, to avoid their developing any dependence on external aid. Cash-for-Work programmes can be good for green shoots of the local economy and generate incomes in a disaster-stricken area. By involving government agencies, the response to a disaster can create a basis for long-term cooperation beyond the emergency phase.

In addition, planning for subsequent cooperation on recovery and development can start in parallel to the disaster response. Early Recovery Assessments can be used as a tool to identify priorities for the recovery in the early stages of a relief intervention. They also offer opportunities to point out the importance of DRR over the long term.

The GRC feels that the sustainable DRR activities are particularly well suited to efficiently link disaster response, resilient reconstruction and subsequent development cooperation, in line with the LRRD approach.

[1] ERU = Emergency Response Unit

International Disaster Risk Reduction and Climate Change Adaptation at the GRC

Disaster Risk Reduction as a cross-cutting theme

In disaster response, the top priority of GRC interventions in the wake of a disaster is to save lives and to contribute to the provision of drinking water, medical care and relief items such as kitchen sets and hygiene parcels.

While the role of DRR is rather low-key at this stage, the GRC endeavours from the start to improve the link between its disaster response and the following recovery phase. Figure 4 gives examples of how the GRC links disaster response to DRR in the early stages of an emergency, when supporting search and rescue operations or providing water and sanitation, emergency shelters, relief supplies and primary health care.

Whenever possible, relief supplies for GRC interventions are purchased on local or regional markets to avoid exacerbating existing vulnerabilities. Moreover, care is taken to procure goods that are socially and environmentally acceptable. Emergency shelters are opened on safe ground, taking into account hazards and avoiding high risk zones such as flood-prone areas.

When the GRC sets up mobile emergency response units (field hospital, basic health ERUs or water treatment units) staff and volunteers of the National Red Cross or Red Crescent Society on site are involved and given training as early as possible. This will enable them to run the facilities independently later on. In addition, hygiene awareness campaigns are launched during this early phase to prevent epidemic outbreaks.

The recovery phase, which includes **reconstruction and rehabilitation,** offers the first major opportunities to reduce the impact of future hazards on communities and to address their vulnerabilities. At this stage, the GRC‘s priorities are water and sanitation, health, reconstruction and housing as well as food security and secure livelihoods.

Showing local Red Cross staff and volunteers how the GRC‘s field hospital works – Training just after the China earthquake of 2008. Picture: GRC 2008

Pakistan Red Crescent volunteers help operate a water treatment module during the floods of 2010 and are trained on the job. Picture: GRC 2010

International Disaster Risk Reduction and Climate Change Adaptation at the GRC

Disaster Risk Reduction as a cross-cutting theme

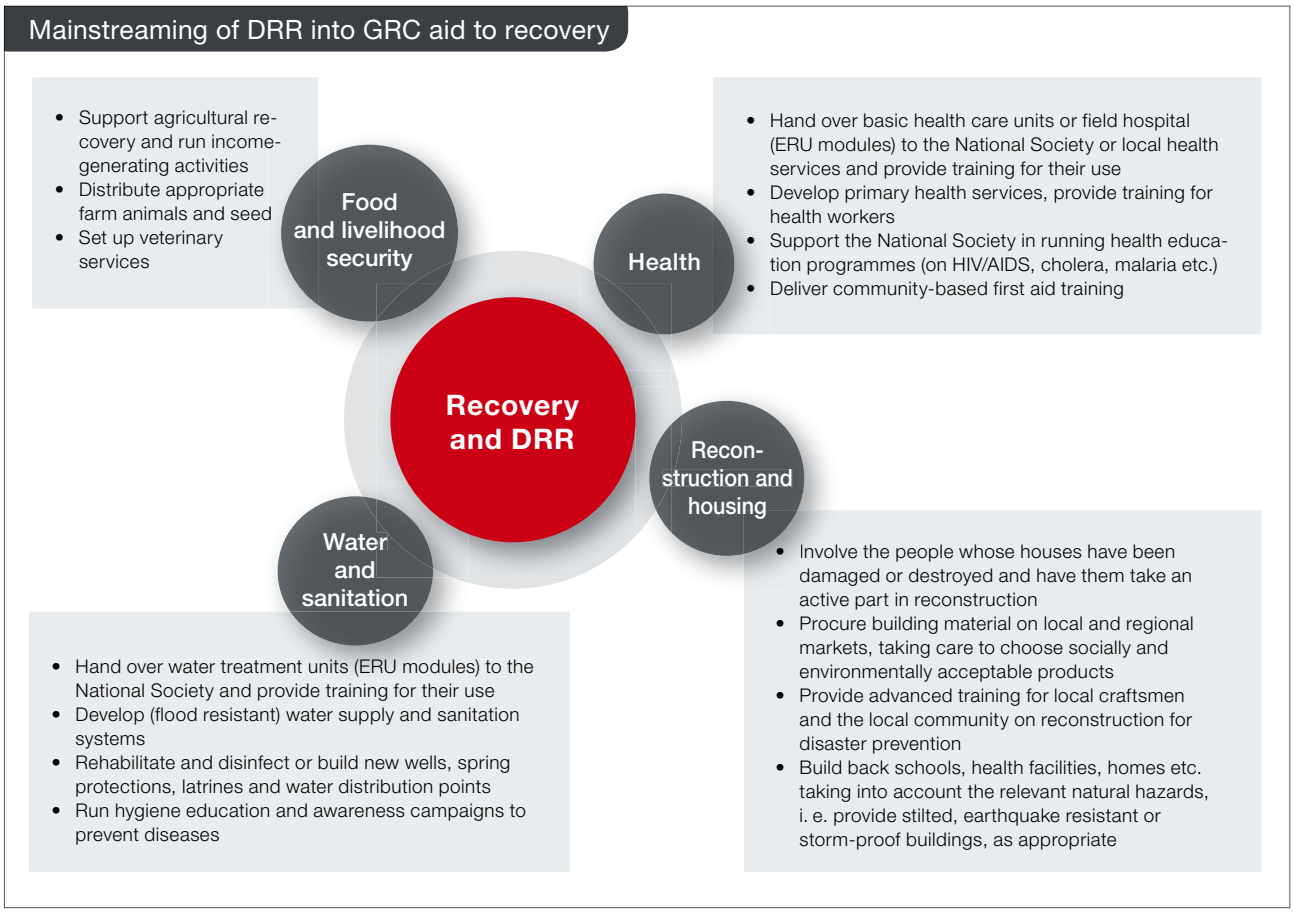

Fig. 5: Mainstreaming of DRR into GRC aid to recovery – some examples.
Source: GRC 2012

Figure 5 shows how the GRC builds activities aimed at DRR into its aid to recovery. The provision or improvement of water and sanitation systems with simultaneous broad hygiene education campaigns will help prevent the spread of epidemics such as cholera in the long term. A sustainable supply of basic food items can be ensured by promoting more sustainable farming methods. During the recovery phase, the GRC also hands over any mobile emergency response units to the National Society on site, which will substantially strengthen local disaster management capacities. Besides, houses are rebuilt to resist earthquakes or floods or both, where and as necessary.

Not every activity undertaken during the emergency or recovery phase will necessarily connect to DRR, but most can do it or can at least constitute a basis for subsequent capacity building to strengthen the resilience of vulnerable communities.

Reconstruction: earthquake resistant and flood proof houses built within a GRC project in Indonesia after the 2004 tsunami.
Picture: GRC 2008

Disaster Risk Reduction as a key sector of development cooperation provided by the GRC

Communities hit by disasters must be enabled to develop future prospects even for the long term – this is a cause the GRC has been championing for many years. As a consequence, the GRC endeavours to follow up its emergency relief and aid to recovery with development cooperation.

On the sidelines of disasters, the GRC mainly supports destitute rural communities in less developed countries in improving their living conditions. This contributes to the Millennium Development Goals (MDGs) adopted by the United Nations.

DRR is one of five key sectors of GRC development cooperation, the other four being health, water and sanitation, food security and poverty reduction. In this context, DRR focuses on doing risk assessments, disaster prevention and mitigation and disaster preparedness.

Genuine DRR will start with a **Vulnerability and Capacity Assessment (VCA)** on site, i. e. by identifying and assessing the existing natural hazards, the vulnerabilities and the response capacities of a community. The GRC has, for many years, been using VCAs as a tool to empower local communities to independently assess their environment with its natural hazards and disaster risks.

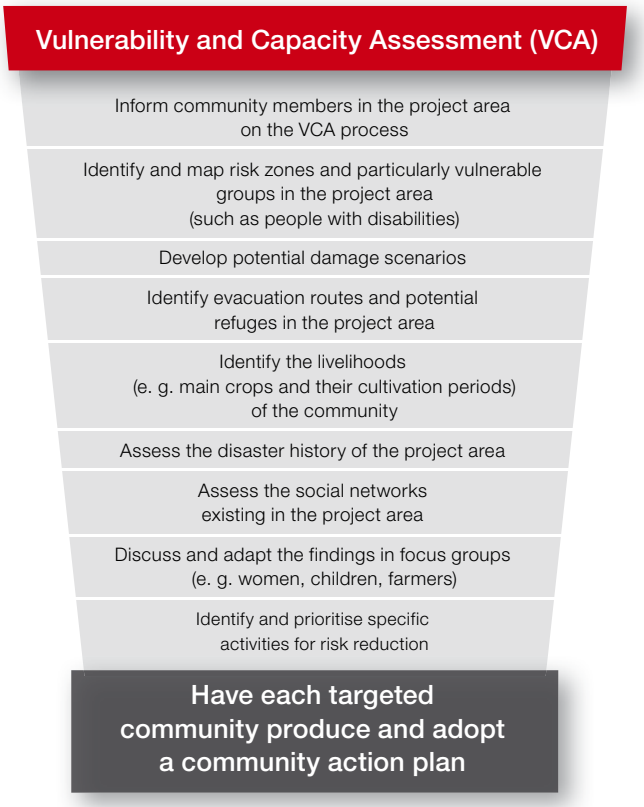

Fig. 6: Substance of a Vulnerability and Capacity Assessment (VCA).
Source: GRC 2013

A VCA takes into account local knowledge of natural hazards, the frequency of disasters and any pre-established structures such as evacuation routes or safe refuges. Any functioning village committees are involved in the process. Hazard maps are used to identify the high-risk zones and the safe places in each targeted community. This assessment helps local communities and the GRC work out what the key risks are. In addition, a VCA will provide information on the capacities available to cope with these risks.

At the end of the assessment, communities agree on a joint plan of action designed to reduce disaster risks. As this plan of action will serve as an orientation on the respective priorities for DRR even beyond the period of foreign cooperation, it makes sense to support communities in coordinating with the relevant government authorities in charge of disaster management. This will enable communities to link the measures identified for local risk reduction to regional or national development plans and civil protection plans.

International Disaster Risk Reduction and Climate Change Adaptation at the GRC

Disaster Risk Reduction as a key sector of development cooperation

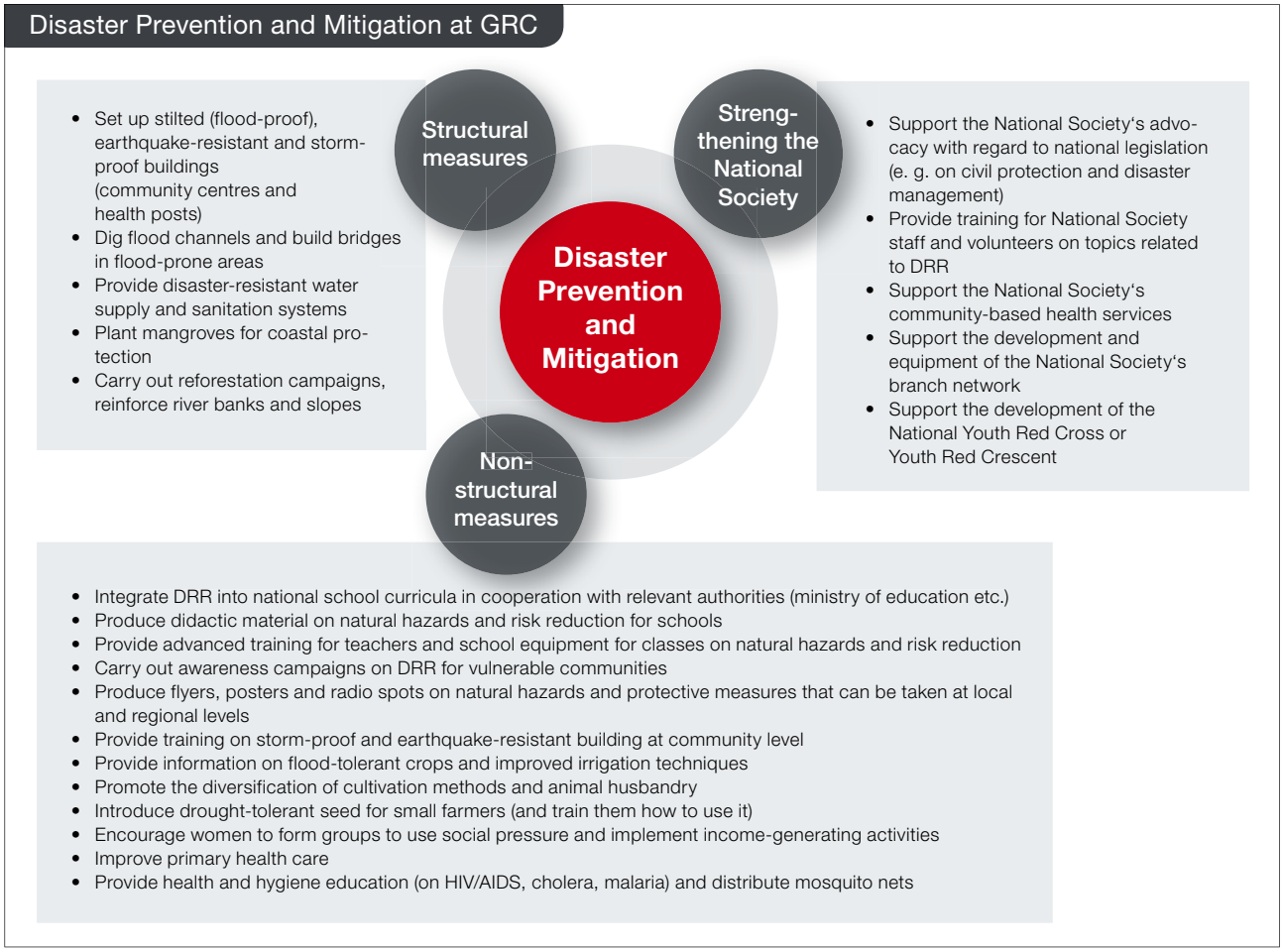

Fig. 7: Examples of disaster prevention and mitigation activities run by the GRC.
Source: GRC 2013

However, doing a VCA and drawing up an action plan as a result will only make sense and be helpful if the measures identified for local risk reduction are really implemented and if the capacities available at community level are promoted and strengthened. Where this applies, the VCA can be used as a tool for DRR project planning and implementation adapted to needs and based on existing capacities.

A VCA thus forms the basis of the DRR programmes and projects run by the GRC, which contribute to preventing or reducing loss and damage caused by future disasters and to preparing National Societies as well as disaster-prone communities for future extreme events.

Disaster Prevention and Mitigation as undertaken by the GRC comprises activities that contribute to preventing or mitigating the impact of future disasters in the medium or long term. On the one hand, the GRC focuses such action on structural and non-structural activities implemented within a community-based approach. On the other hand, it supports the National Societies of disaster-prone countries (cf. fig. 7).

International Disaster Risk Reduction and Climate Change Adaptation at the GRC

Disaster Risk Reduction as a key sector of development cooperation

Community members working on a participatory vulnerability and capacity assessment in Tanga, Tanzania.
Picture: GRC 2008

A Sri Lankan Red Cross volunteer presents the risk map of a community taking part in a DRR project sponsored by the GRC.
Picture: GRC 2012

Structural activities are often about civil engineering such as the construction of storm-proof community centres, flood channels and flood-proof bridges, fixing slopes prone to landslides by sustainable reforestation or protecting coastal areas by planting mangroves. However, another important part of structural disaster mitigation consists in supporting National Society facilities such as health posts.

Educating the local community on flood protection in Togo.
Picture: GRC 2010

For GRC purposes, the term non-structural measures refers mainly to awareness raising, for instance by sharing technical knowledge on natural hazards and DRR with school students and teachers, and to the production of supporting educational material. In the GRC's view, awareness of natural hazards is an important prerequisite for successfully introducing safer building methods and standards or more appropriate, risk-conscious land use within community-based DRR programmes.

Disaster prevention and mitigation are most effective where activities follow up the findings of a preceding VCA and where structural and non-structural activities are combined appropriately.

Disaster Preparedness – preparing for future disasters – is another key sector of GRC action for DRR, once again with a double focus on community-based approaches and capacity-building for the respective National Societies (cf. fig. 8).

Their role as auxiliary in the humanitarian services of their governments gives National Societies a special responsibility in the event of a disaster. The GRC therefore assists them in establishing emergency

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Disaster Risk Reduction as a key sector of development cooperation

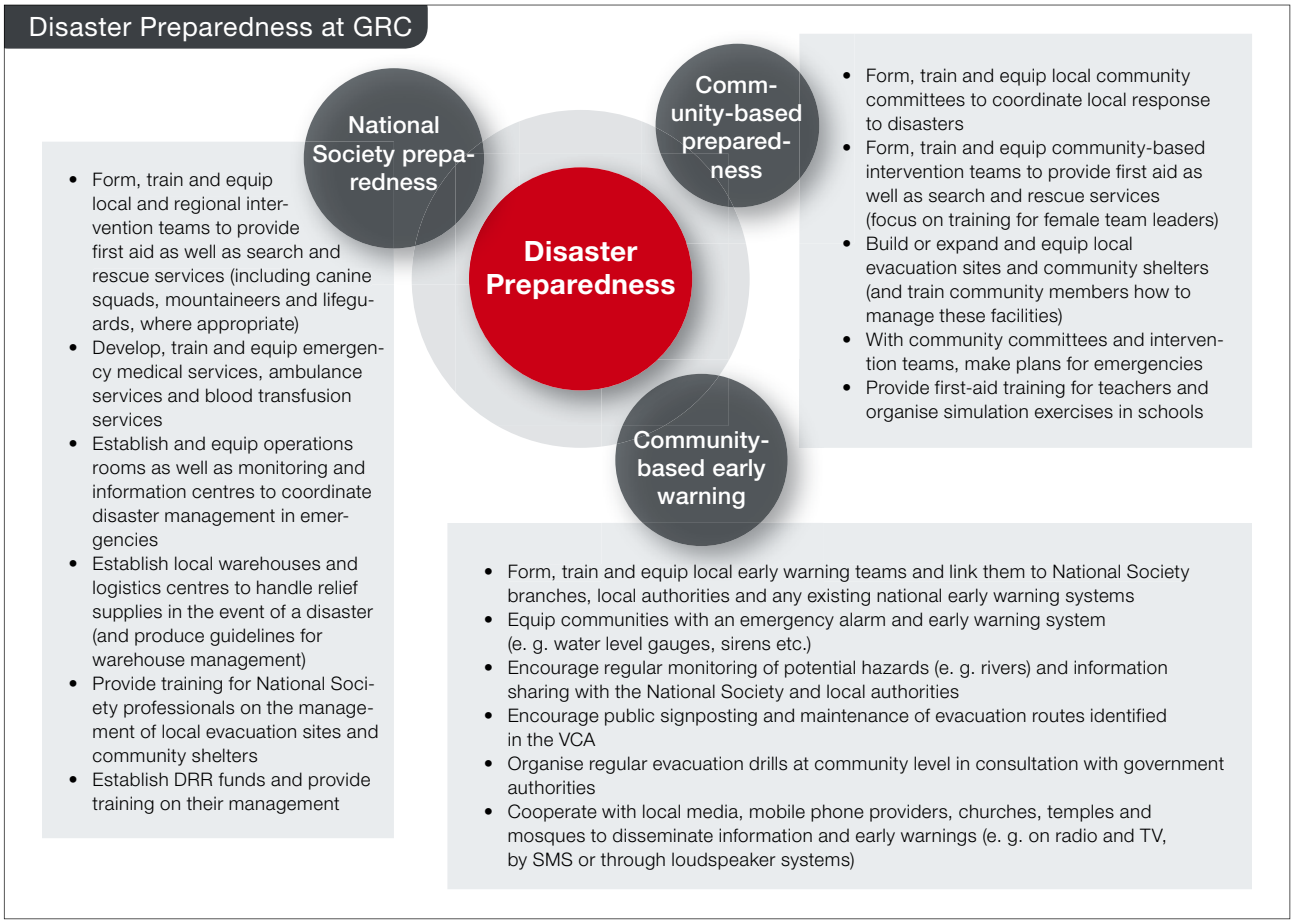

Fig. 8: Examples of GRC contributions to disaster preparedness. Source: GRC 2013

medical services, ambulance services and appropriate information and control centres, which will enable them to respond even more effectively and coordinate more swiftly with the government authorities in charge of disaster management.

The GRC moreover supports the formation and training of first aid brigades and search and rescue teams at local and regional levels. It encourages communities to work out emergency action plans and evacuation plans and to organise evacuation drills at regular intervals. Such preparations can save lives during earthquakes, tsunamis, floods or tropical windstorms in coastal countries. The GRC pays particular attention to the participation of women in these activities.

Robust bridges in north-west Pakistan will provide access to villages even during flash floods.
Picture: GRC 2010

International Disaster Risk Reduction and Climate Change Adaptation at the GRC

Disaster Risk Reduction as a key sector of development cooperation

Training canine squads of the Iranian Red Crescent – with GRC support.
Picture: GRC 2007

Water level gauges are monitored by local early warning teams in Togo to ensure timely evacuation of flood-prone villages. Picture: GRC 2012

Setting up local early warning systems is crucial in this context. Early warning will effectively contribute to DRR only if it reaches the threatened communities in time and if they accept the message and have previously practised their response. Ensuring uninterrupted and fast communication chains that reach out even to remote communities is therefore paramount.

The GRC goes in for DRR programmes that are not limited to so-called hardware, i. e. merely technical solutions or stockpiling of relief supplies, with occasional problems of its own. DRR is most successful where it takes a bottom-up approach and starts by involving disaster-prone communities in decisions on the line of action to be taken. Where technology-based early warning systems or shelter buildings are provided, the people in the area will also need to know how to respond when the alarm is sounded. With many years of experience to draw on, the GRC knows how to organise social mobilisation for DRR.

GRC-supported first aid training for school children on the east coast of India.
Picture: GRC 2009

Earthquake simulation exercise at Magara Primary School in the Philippines, within an integrated DRR project.
Picture: Rob Few, Federation 2009

International Disaster Risk Reduction and Climate Change Adaptation at the GRC

More key sectors of GRC development cooperation

Disaster Risk Reduction and the other key sectors of GRC development cooperation

The GRC has considerably increased the importance given to DRR within development cooperation (DC). At the same time, however, the GRC is seeking to mainstream the different components and activities of DRR into projects and programmes of other DC sectors as a complementary cross-cutting task.

The GRC has wide experience in supporting long-term development processes in less developed countries, where it focuses on health, water, sanitation and hygiene, as well as food security, poverty reduction – and DRR.

When implementing DC projects in cooperation with National Societies on site, the GRC pursues a double aim:

1. To support the most vulnerable sections of the community in creating better living conditions and sustainable local development.
2. To support the partner country's civil society through the institutional development of their National Red Cross or Red Crescent Society, enabling them to effectively assist local communities when and as required.

Poor health, inadequate water supply and poverty determine the degree of vulnerability to extreme natural hazards, which tends to be particularly high among women and children.

By improving people's health and their food supply and reducing poverty, the GRC also contributes to reduce vulnerability to extreme natural events through projects in other DC sectors.

To be efficient, however, all action aimed at development must take into account the socio-economic environment as well as natural hazards. The GRC has therefore started integrating VCAs, as well as disaster prevention, disaster mitigation and disaster preparedness into the project planning and implementation in other DC sectors. On the other hand, tools and activities developed for other DC sector can be used in DRR projects where assessments on site identify corresponding needs.

Developing voluntary services and civil society in the Philippines. Picture: GRC 2009

Such broader, integrated approaches, which combine participatory activities related to DRR, health, water sanitation – hygiene and poverty reduction into multisectoral programmes, can reduce people's vulnerability, enhance their resilience and ensure sustainable local development at the same time.

The challenge of climate change

The greatest challenge currently facing GRC disaster management and development cooperation is the anthropogenic human-induced climate change combined with demographic growth, urbanization, which in less developed countries often lacks planning, the resulting dependence on vulnerable supply channels and the over-exploitation of vital resources.

The Intergovernmental Panel on Climate Change (IPCC) already forecasted, in its fourth assessment report of 2007, that the global average temperature of the atmosphere could rise by up to 6.4 Celsius (43F) until the end of the present century, causing a rise in sea levels which would threaten the existence of people living in coastal areas and a great number of island countries. The main cause of this trend is the unchecked emission of greenhouse gases (GHG), particularly carbon dioxide (CO^2), as fossil energy sources are used and forests are cut on a large scale in many regions of our planet.

Climate change is not only a problem for future generations. It is already taking place and affecting the lives of people in developing countries. Extreme weather events are nowadays blamed for 75 per cent of the natural disasters recorded globally (cf. DKKV 2009) and disrupt entire infrastructure systems in less developed countries. The German Advisory Council on Global Change (cf. WBGU 2008) and even the United Nations have therefore described climate change as a threat to international security.

This trend is threatening to get worse as rising sea levels, increasing torrential rains and floods, stronger tropical windstorms, with more frequent and more severe droughts and greater incidence of diseases such as malaria, all caused by climate change, could accelerate and exacerbate social destabilisation.

Climate change and the resulting extreme weather events are therefore posing the urgent threat of an increase in humanitarian crises, with the poorest sections of humanity initially hit hardest. To the GRC, this means the risk of a slow-down in economic development and a sharp rise in poverty, most notably in the countries which to date remain less developed. This throws even more doubt on the accessibility of the millennium development goals adopted by the United Nations' member states at the millennium summit of Johannesburg in 2000 (cf. BMZ 2011).

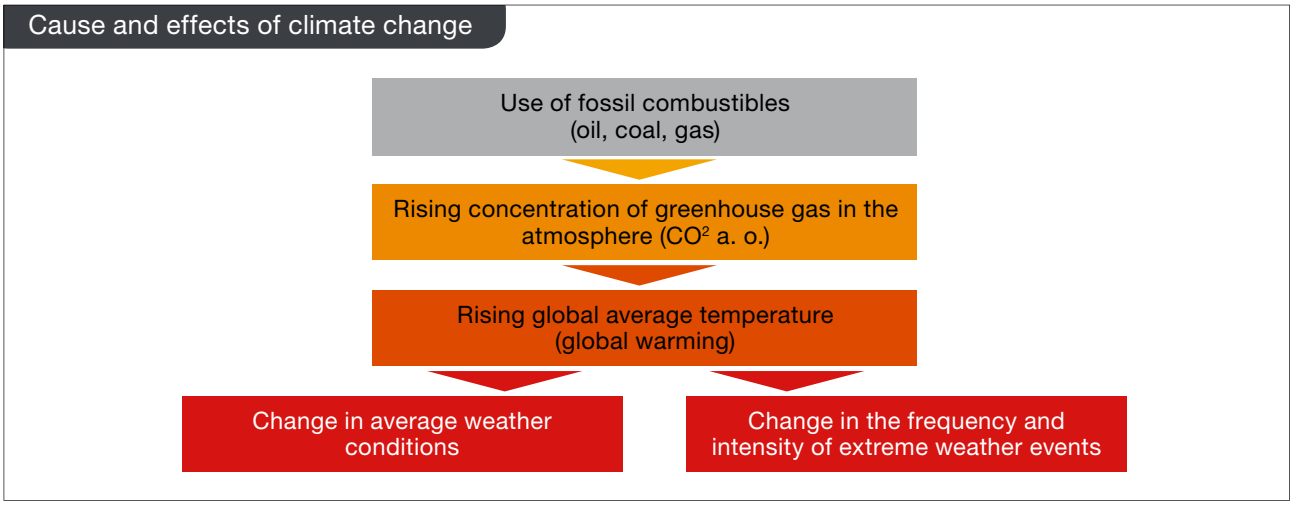

Fig. 9: Cause and effects of climate change.
Source: GRC 2013

International Disaster Risk Reduction and Climate Change Adaptation at the GRC

The challenge of climate change

Damage caused by floods in Pakistan in 2010.
Picture: GRC 2010

Specific climate projections have been used to identify particularly vulnerable regions such as the Sahel zone, western and southern Africa, the Caribbean, South Asia and Southeast Asia. These are regions where the GRC has been co-operating with National Red Cross or Red Crescent Societies for years, in some cases even for decades.

The impact of climate change is directly affecting the work of the Red Cross and Red Crescent Movement: Any increase in disastrous events poses a new challenge to the immediate response and requires additional efforts to be made for subsequent recovery. Humanitarian actors will soon be unable to cope unless significant progress is made in building local response capacities.

Nor can strengthening response capacities alone be considered an adequate response to climate change, as its consequences will also affect health, water and sanitation, poverty reduction and food security, with the amounts of arable land and fresh water available worldwide set to decline, among other resources.

Improved DRR is therefore required to help communities in developing countries adapt to the implications of climate change and prepare for extreme weather events. Hence the imperative to take into account future climate hazards when planning DRR activities.

Adapting to climate change

Addressing climate change and its humanitarian implications, particularly for those who are more vulnerable, is a central task of the GRC by virtue of the Red Cross Movement's core mandate.

While effectively solving the climate crisis by reducing greenhouse gas emissions and limiting global warming will primarily depend on the success of political negotiations at international level, the GRC and the Red Cross and Red Crescent Movement are aware of the necessity to also adopt environmentally friendly practices for themselves and their action.

As climate change is already happening and its impact is set to increase, especially where vulnerable communities in developing countries are concerned, it is paramount to support communities in these countries in adapting as effectively as possible to the implications of climate change that are no longer avoidable.

The wide range of experience and approaches used in DRR is key to designing effective Climate Change Adaptation (CCA). The focus is on strategies used in the past to address extreme weather events, but these strategies will have to be adapted to take into account the risks of the future.

The Federation was one of the first major organisations outside the environmentalist movement to point out, as early as in the 1990s, that climate change would pose a serious threat.

In 2002, the Movement created the **Red Cross Red Crescent Climate Centre** in The Hague as an international reference centre which commands vast background information on different regional climate hazards and supports National Societies in integrating responses to the potential hazards caused by climate change into their strategies and project activities.

The GRC regularly provides local and expatriate staff with training on climate change adaptation, organised in close cooperation with the Climate Centre, as in East Africa in 2011.
Picture: GRC 2011

At the International Red Cross and Red Crescent Conference held in 2007, the crucial importance of supporting CCA in conjunction with DRR was recognised even by the delegations of the states parties to the Geneva Conventions. The conference underlined that disaster preparedness is essential to rise to the challenge of climate change. Moreover, the participants of the conference expressed their determination to integrate CCA into their respective DRR policies and plans and to mobilise adequate technical personnel and financial resources for this purpose.

At the International Red Cross and Red Crescent Conference of 2011, the GRC pledged to enhance the National Society's support for CCA within international cooperation while also reducing the National Society's own greenhouse gas emissions and promoting environment-friendly practices. The German Red Cross Youth followed suit by launching a nationwide awareness campaign on climate change in 2012. The campaign looks at ways to reduce CO^2 emissions of GRC facilities, among other issues.

With its network of 188 National Red Cross and Red Crescent Societies and millions of volunteers, members and staff world-wide, the Movement can contribute significantly to public awareness of these issues.

International Disaster Risk Reduction and Climate Change Adaptation at the GRC

Adapting to climate change

The GRC has identified seven practical steps to mainstream CCA into international cooperation:

Step 1: Do a climate risk assessment

A climate risk assessment is a tool designed to identify future climate risks in a given project country. Done by the GRC and the local National Society in cooperation with local climatologists, to be found for instance in meteorological services or scientific institutes of the country concerned, this assessment is used to develop policies and strategies for national CCA in general and for the integration of CCA in Red Cross or Red Crescent activities in that country.

The climate risk assessment is done before starting project implementation and therefore prior to the community-based VCA.

The climate risk assessment consists of three steps:

1) Assess existing climate risks:

- Identify potential (future) extreme weather hazards caused by climate change, such as increasingly frequent and intense storms and torrential rainfall, salinisation of soils
- Identify who is or will be threatened most by the potential extreme weather hazards, for instance communities living in coastal or flood-prone areas
- Identify specific vulnerabilities, such as inadequate infrastructure, lack of knowledge on risk reduction
- Describe the potential risks threatening these communities, for instance destruction of homes, loss of cropland

2) Identify options for action:

- Produce a package of activities taken for instance from the toolboxes of DRR and primary health to reduce vulnerability to disasters and mitigate potential risks
- Mainstream the identification of possibilities to reduce CO^2 emissions

3) Prioritize the options:

- Prioritize the options for action identified beforehand, on the basis of pre-established criteria such as sustainability, efficiency, feasibility and cultural acceptability
- Build the preferred options into project planning

This procedure is based on an approach developed by *Welthungerhilfe*, a German agency working for food relief and food security (cf. Deutsche Welthungerhilfe 2011).

Step 2: Integrate adaptation to new and potential risks into projects

The results of the climate risk assessment are fed into project planning and implementation. The options for action identified as top priorities are recorded in the project planning documents and are kept in mind by the GRC and the respective National Societies throughout project implementation. DRR activities focused on mitigating the potential impact of extreme weather hazards have an important role in this context.

Addressing the issue of climate change in the community-based VCA done at the beginning of project implementation is particularly important. Rather than looking at disaster history and present hazards, the VCA is about the community members‘ perceptions of climate change as they are experiencing it.

Step 2 should include the following central activities:

- Enquire about and take into account any changes in the climate which the community has already noticed (e. g. shifts in rain or harvesting or cultivation patterns)
- Record and take into account (possibly traditional) methods used or developed by the community to adapt to these changes in the local climate

During a VCA process in Sri Lanka, a local community first assessed recent change in rain patterns, then opted for using local rice seed, which is better adapted to such changes. This has brought back better crop yields.
Picture: GRC 2012

- Do a survey to find out which information on climate change the community is already using and which additional information on climate change they should be given
- Check whether the activities proposed within the VCA process make adequate provision for the future climate hazards identified by the climate risk assessment.

Step 3: Build new partnerships and networks

To cope with the challenges posed by climate change, the GRC and National Societies on site are cooperating to build new partnerships with other actors involved in climate change and CCA, such as weather services and scientific institutes dealing with climate research. Their expertise is essential to identify potential extreme weather hazards for the climate risk assessment, but it can also help to take even more account of climate change issues during the VCA process.

Sustainable risk reduction also requires new lines of cooperation and networks consisting of National Societies, NGOs, other governmental and non-governmental actors involved in disaster management, environment and climate protection and players from the corporate sector.

The National Societies on site are particularly well placed to bridge the gap which often exists between national and local stakeholders: in many countries, the network of Red Cross and Red Crescent branches reaches from small, remote communities into the national capital.

Step 4: Plan activities on the basis of forecasts

In cooperation with the International Research Institute for Climate and Society (IRI) in New York, the Red Cross Red Crescent Climate Centre regularly provides seasonal precipitation forecasts to the GRC, among others. The seasonal forecasts show the

estimated probability of extreme rainfall or extreme drought up to three months in advance. The data reveal which areas have to expect floods or drought within the coming weeks and months (cf. IFRC 2008 and RCRC Climate Centre 2012).

However, these forecasts, or early warnings as the case may be, only make sense if people in the regions concerned respond by planning and taking adequate measures.

The challenge consists in reconciling requirements in terms of time and precision: Years ahead, we have plenty of time for risk reduction but little detail on the hard and fast impact of climate change. By contrast, there is plenty of detailed information about a spell of extreme weather a few days before it sets in, but hardly any time left for risk reduction.

Considering a time scale of years, we know for instance that certain countries will be exposed to

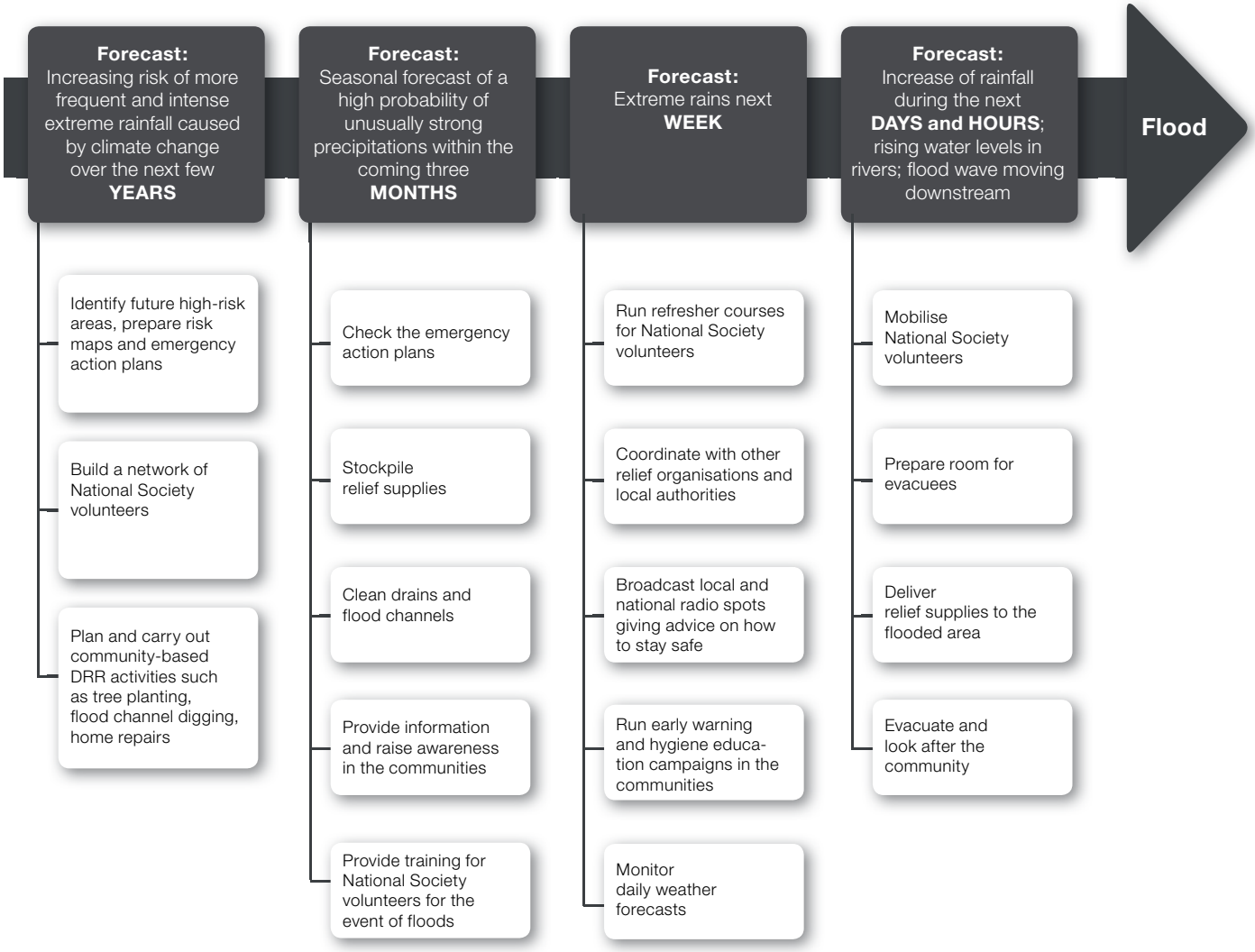

Fig. 10: Examples of forecast-based flood preparedness. Source: GRC 2013

an increasing risk of extreme precipitations. At this stage, however, we still lack precise information on where and when exactly this rain will fall, whereas seasonal forecasts covering months and weeks can already identify areas likely to be affected by strong rain during the forecast period. The classic weather forecast, finally, provides detailed information on where exactly people will have to expect flooding over the coming days and hours.

Based on the different degree of detail available at different points in time, the GRC assigns certain activities to different preparatory stages, depending on the information at hand (figure 10 shows this, using the example of floods).

An activity that makes sense years ahead is to integrate any known risks for the future into community action plans for emergencies, while a seasonal forecast may prompt a National Society to enhance volunteer preparedness on site and start stockpiling relief supplies. The evacuation of flood-prone villages is finally done when flooding is imminent.

Such forecast-based planning and implementation of DRR activities is important if we want to make good use of the available information on extreme weather while remaining able to act despite of persisting uncertainties regarding practical and longterm impacts and implications of climate change.

Step 5: Information and training

In cooperation with the National Societies on site, the GRC supports communities in less developed countries in gaining a better understanding of climate change, its humanitarian implications and measures required for adaptation.

Information on natural hazards already has a key role in DRR. To support CCA, the current awareness activities are supplemented by:

- Training National Society staff and volunteers on causes, future trends and risks of climate change and on ways of adapting to it
- Implementation of specific awareness information campaigns at community level, to inform people on the risks of climate change and the need to adapt
- Integration of climate change and CCA as school topics into activities aimed at educational authorities and teachers, and when producing teaching material

Step 6: Documentation of experience

Integrating CCA into the international cooperation of the GRC jointly with National Societies in particularly vulnerable countries is a learning process. The resulting experience is recorded and processed, both for consistent critical reviews of the GRC‘s approach and for exchanges with partners within and outside the Red Cross and Red Crescent Movement.

Step 7: Advocacy on behalf of disaster-prone communities

The GRC advocates on behalf of those who are most severely threatened by climate change. It will push for adequate attention to be given to the humanitarian implications of climate change and increasing extreme weather conditions in the national and international context and in dialogue with society and with the worlds of politics and business. The GRC will moreover tackle a cause of climate change by reducing its own greenhouse gas emissions.

Outlook

The GRC takes on the task to help clarify the necessity and benefits of DRR and CAA to governments of disaster prone countries, donors and the public at large, as well as other NGOs it is in contact with.

However, GRC action to this effect depends on corporate and private donations, on one hand, and on public grants from national, European and international institutions, on the other.

The efforts of the Red Cross and Red Crescent Movement cannot be a substitute for politics. National legislation on civil protection including disaster preparedness is a political responsibility of individual governments. But the GRC can contribute to local institution building, and it can support National Societies in performing appropriate tasks within such legislation, for instance by preparing local and regional emergency action plans and intervention plans.

Even the best DRR will not provide solutions to all humanitarian and development issues. However, the GRC recognizes that it has a crucial part to play in securing the future, which must be a global concern in a globalized world.

DRR can indeed help reduce the loss of lives, personal distress and material damage in many regions across our planet today and tomorrow. DRR can help safeguard the socio-economic and political development of a country even after extreme natural events and thereby contribute to sustainable development and social peace.

The GRC will continue advocating for the numerous tried and tested DRR tools to be even more broadly understood by different humanitarian and development actors to be crucial elements of CCA.

DRR and the complementary CCA tools will therefore continue to play a key role in project planning and implementation within the GRC‘s international cooperation. In parallel, the GRC will implement practical measures to cut down its own greenhouse gas emissions and thereby reduce its ecological footprint.

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International Cooperation

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The Fundamental Principles of the International Red Cross and Red Crescent Movement

HUMANITY

The Red Cross, born of a desire to bring assistance without discrimination to the wounded on the battlefield, endeavours – in its international and national capacity – to prevent and alleviate human suffering wherever it may be found. Its purpose is to protect life and health and to ensure respect for the human being. It promotes mutual understanding, friendship, cooperation and lasting peace amongst all peoples.

IMPARTIALITY

It makes no discrimination as to nationality, race, religious beliefs, class or political opinions. It endeavours only to relieve suffering of individuals, being guided solely by their needs, and to give priority to the most urgent cases of distress.

NEUTRALITY

In order to continue to enjoy the confidence of all, the Red Cross may not take sides in hostilities or engage at any time in controversies of a political, racial, religious or ideological nature.

INDEPENDENCE

The Movement is independent. The National Societies, while auxiliaries in the humanitarian services of their governments and subject to the laws of their respective countries, must always maintain their autonomy so that they may be able at all times to act in accordance with the principles of the Movement.

VOLUNTARY SERVICE

It is a voluntary relief movement not prompted in any manner by desire for gain.

UNITY

There can be only one Red Cross or one Red Crescent Society in any one country.
It must be open to all. It must carry on its humanitarian work throughout its territory.

UNIVERSALITY

The International Red Cross and Red Crescent Movement, in which all Societies have equal status and share equal responsibilities and duties in helping each other, is world wide.

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