German Red Cross
National Headquarters
International Cooperation

German Red Cross

GRC - International Cooperation

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

Imprint

In the interest of editorial simplification and improved readability this publication uses only the masculine form when referring to persons; however, women are explicitly considered included in the reference.

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1 Introduction

The impact of disastrous natural events has repeatedly caused enormous human suffering and posed tremendous 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 back the economic development of an area or a whole country by several decades.

Besides 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.

Although the number of people affected by natural disasters has decreased over the past years, at over 190 million affected people worldwide the number still remains very high. Over the last few years, more than 70 % of all deaths caused by extreme natural events were reported in developing countries (cf. International Federation of Red Cross and Red Crescent Societies, IFRC 2016).

This has considerable impact on people‘s chances of survival, their living conditions and their dignity, all the

People in developing countries such as Bangladesh are particularly threatened by extreme natural hazards and climate change.
Photo: GRC 2016

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.

Particularly for communities living in less developed countries, people‘s scope of action for adapting to this threat is severely restricted by poverty.

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 (IFRC), and presently 190 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 by 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 IFRC as well as representatives of the state parties to the Geneva Conventions.

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, among other things, emergency medical services, medical care for the ill, social care for vulnerable people and aid to children and youth. 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 the other components of the Red Cross and Red Crescent Movement, the GRC participates in **humanitarian emergency and disaster response, reconstruction and humanitarian oriented development cooperation** in over 35 countries worldwide.

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 it 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 increasing complexity in its key areas of work requires the GRC to constantly further develop its international cooperation. For this reason, the GRC has developed a resilience framework. The overall objective of this approach is to strengthen the resilience of the

target groups concerned against natural hazards and other stress factors through an integrated approach that works across sectors to bring together short-term emergency relief with long-term, development-oriented measures.

The GRC believes that even **before extreme natural events occur**, measures must be taken to adequately prepare communities for these events and thus limit or perhaps even prevent the disastrous effects of such natural hazards as much as possible.

Since 2016, the Federal Foreign Office (FFO) has tasked the GRC with providing an advisory service in the field of humanitarian Disaster Risk Reduction (DRR). The aim of this advisory service is to ensure an exchange of experience with regard to the operative implementation of measures. At the same time, it aims to support cooperation between those involved in the various levels of DRR in Germany. This is achieved through various dialogue platforms:

- **The Preparedness Working Group**, in which the German actors in the field of humanitarian DRR meet to discuss relevant aspects. The aim of the working group is to draw up concrete recommendations and best practice examples for action on the implementation of approaches within humanitarian DRR.

- **Regional workshops**, which are held in high-risk regions with German aid organisations' local partners and complement the activities of the Preparedness Working Group. These workshops provide an opportunity to discuss experiences and approaches on the ground. The results of the discussions are included in the recommendations for action to the FFO.

- **The conference on Disaster Risk Reduction**, which provides a forum for dialogue between German experts involved in national and international DRR. At this annual conference, experts from the various sectors have an opportunity to discuss current developments, approaches and measures in the different fields of DRR.

Today and in the future, the GRC's service and experience in the field of humanitarian assistance and humanitarian oriented development cooperation are the key to respond adequately to sometimes very complex natural hazards. This response includes DRR and supporting the institutional development of National Societies with the aim to avert and mitigate human suffering. Even though extreme natural events will keep occurring in the future, we are able to prepare affected communities in a way that reduces disastrous impacts of the respective natural events. This brochure introduces the GRC's approach and experience in the field of DRR and Climate Change Adaptation (CCA).

2 Fundamentals and action areas 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 (cf. 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 hits a vulnerable community. **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** (see Fig.1). 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. The 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.

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 (cf. FFO 2017)

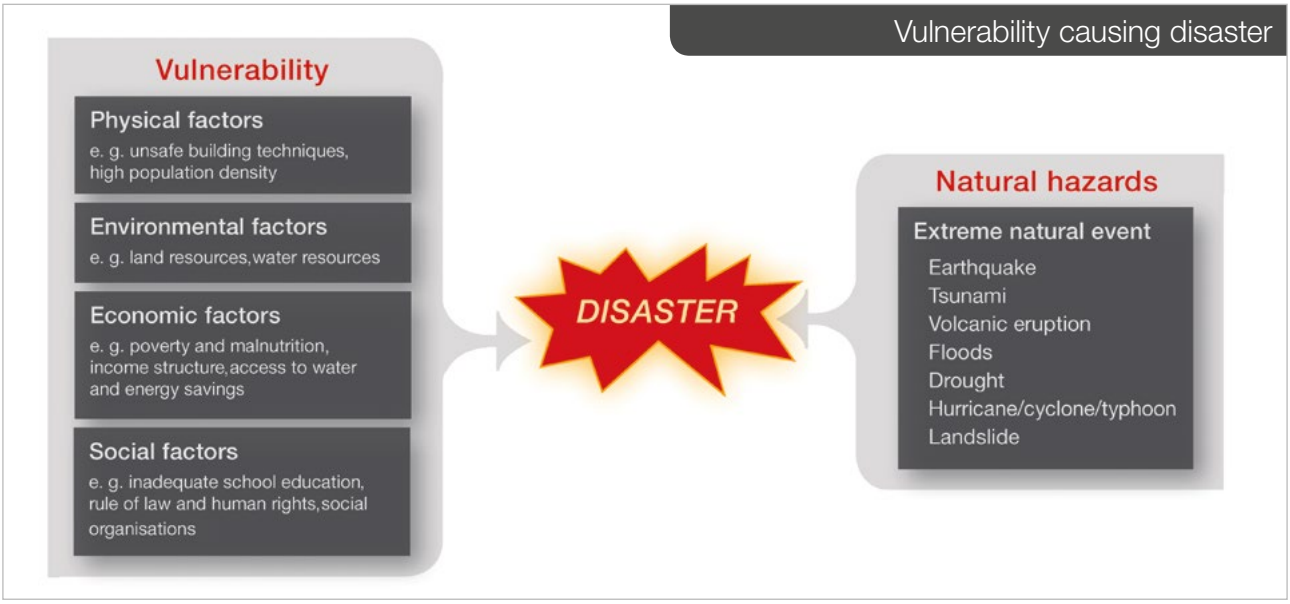

Fig. 1: Vulnerability causing disaster
Source: GRC 2017

DRR measures aim to reduce existing vulnerabilities while at the same time strengthening communities' resilience and capacity to help themselves.

Overall, DRR operates in three main areas (see Fig.2):

- **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 to 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 that 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 active all over the world, running programmes in Asia, Africa and Latin America. DRR components play a key role in these programmes, on the one hand cutting across emergency response and reconstruction of the GRC and on the other hand as a key sector of development cooperation.

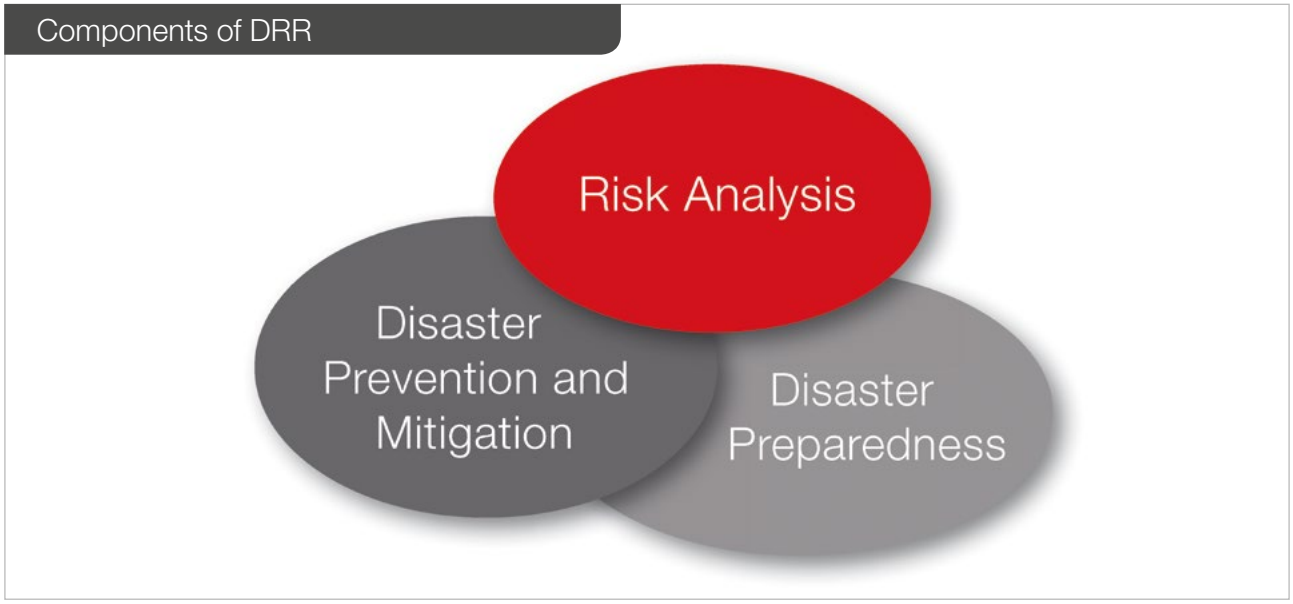

Fig. 2: Components of DRR
Source: GRC 2017

3 Disaster Risk Reduction in the International Context

In the form of the Hyogo Framework for Action 2005 – 2015 (HFA), the member states of the United Nations passed their first comprehensive action plan for improving DRR.

One of the most important achievements of the HFA, which expired in 2015, was that the framework garnered increased international awareness for DRR and thus the options available for reducing the effects of natural hazards. For one thing, donors to international cooperation have increasingly been supporting DRR, from risk assessment through to early warning and disaster preparedness. At the same time, increasingly more nations have started to develop their own strategies for DRR in order to be able to better react to disasters (cf. UNISDR 2015).

At the UN World Conference on Disaster Risk Reduction (WCDRR) in Sendai, Japan, approximately 6,500 delegates from 187 countries negotiated the Sendai Framework for Disaster Risk Reduction 2015 - 2030 (SFDRR), which was adopted by the WCDRR in 2015, thus making it the successor to the HFA. The main goal of the SFDRR is to significantly reduce disaster risks and the vulnerability of affected people, while also supporting measures meant to prepare these communities for a disaster and assist in reconstruction in order to strengthen the resilience of the affected communities sustainably (cf. BMZ 2015a). 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.

Sendai Framework for Disaster Risk Reduction (2015 – 2030)

Seven essential targets for disaster risk reduction

- Substantially reduce global disaster mortality
- Substantially reduce the number of people affected by disasters
- Minimization of direct economic losses
- Reduction of damages to critical infrastructure and disruption of basic services (such as healthcare and educational facilities)
- Increase number of countries with national and local disaster risk reduction strategies
- Substantially enhance international cooperation and support of developing countries
- Substantially increase the availability to early warning systems and information for disaster risk assessment

Four action areas

- **Better understanding of disaster risk**
- **Strengthening disaster risk governance at regional, national and international levels**
- **Investing in disaster risk reduction for strengthening resilience**
- **Enhancing disaster preparedness**

In order to measure advancements made in the individual action areas, an expert group was established to develop a set of possible indicators to measure and monitor the progress in the implementation of the targets.

In the fifth assessment report on climate change of the Intergovernmental Panel on Climate Change (IPCC), the latest results of research carried out by independent climate researchers were summarized in 2014. The report shows that anthropogenic greenhouse emissions are causing global warming, rising sea levels and an increase in the frequency and intensity of extreme weather events. This rise in extreme weather events is already evident today (cf. IPCC 2014). In its recommendations the IPCC states, among other things, that particularly DRR and adaptation to climate change must be given more consideration in international cooperation and both areas should also be more of a focus for local governments.

DRR also plays an important role in the UN Paris Agreement (United Nations Framework Convention on Climate Change (UNFCCC), 21st Conference of the Parties) of 2015. After the SFDRR, a second international framework agreement was passed that emphasizes the significance of DRR. The signing nations thus declare that they support measures for reducing the impact of natural disasters and will integrate measures of CCA into their development cooperation.

In the contract member states are called upon, among other things, to get involved in the areas of early warning systems, disaster preparedness, and the strengthening of communities' resilience (cf. UNFCCC 2015).

Climate change brings on more frequent extreme weather events such as here in Haiti. The relevance of DRR thus continues to increase.
Photo: GRC 2009

4. Disaster Risk Reduction for Strengthening Resilience

The international cooperation of the German Red Cross aims at supporting those affected by disaster and victims of conflict by assisting them with acute emergency help and disaster response services based on their needs. Social services are provided in the affected communities as part of reconstruction measures and humanitarian development cooperation. Close collaboration with the National Societies and the local population is central in these activities.

The competences of the GRC can be summarised as follows:

- Emergency relief in crisis, conflict and disaster situations
- Provision of shelter and social infrastructure
- Disaster Risk Reduction
- Provision of health care, food, water/sanitation, hygiene
- Improvement of livelihoods
- Adaptation to climate

Here, the GRC DRR takes on great significance as a **crosscutting issue** in acute emergency and disaster relief as well as in reconstruction after disasters but also as a **sectoral focal point** in long-term cooperation.

In accordance with the so-called Linking Relief, Rehabilitation & Development (LRRD) approach, the GRC is interested in creating a framework for sustainable development processes from the very start in connection with acute emergency and disaster response. In the process, the GRC integrates disaster risk prevention as a link in the LRRD approach early on with the aim of strengthening the local capacity for self-assistance and thus the resilience of the population as early as possible.

One of the ways this succeeds is by involving the survivors of a disaster in the aid measures through participative processes early on in order to prevent them from becoming dependent on external support. Various approaches in the areas of Cash Transfer Programming (CTP) can, for example, be used as a catalyst to foster early economic and income growth in the affected region.

Simultaneously with the phase of acute emergency and disaster response, planning starts for reconstruction and humanitarian-based development cooperation. Early Recovery Assessments yield the necessary focal points for reconstruction at an early stage in the aid process. These address the existing natural hazards and are aimed at increasing disaster resistance..

Within the context of long-term cooperation, as a sectoral focal point the GRC DRR plan follows the goal of permanently minimizing the disaster susceptibility factors that caused the disaster in high-risk population groups. During this process, close cooperation with the National Society and involvement of the governmental institutions forms the foundation for such long-term DRR.

The GRC also recognizes the necessity of better allowing the different sectors of its international cooperation to overlap so that the local population can be supported in the areas of life where their need is greatest. Depending on the local situation, implemented projects are therefore supplemented by components of DRR through measures in the sectors of health, water supply, waste disposal and sanitation, food security, or improvement of livelihood.

This integrated methodology is at the core of the GRC's resilience approach.

4.1 The Resilience Approach of the GRC

Humanitarian emergency and disaster relief, recovery and rehabilitation efforts and development cooperation that are based on humanitarian principles characterise today's international cooperations of the GRC. Its

principal objective is to strengthen the resilience of the respective target groups and the National Red Cross and Red Crescent Societies, in such a way as to enable them to overcome acute shocks or chronic stress situations (so-called stress factors) brought about by crises, violent conflicts or natural disasters, to adapt and quickly recover without their medium or long-term prospects being jeopardised (cf. BMZ 2013).

The GRC's resilience framework should be seen as a humanitarian-oriented development approach, which addresses acute humanitarian emergencies, on the one hand, but which, at the same time, takes into account the underlying causes of vulnerability and existing impediments to development as a result of which the GRC feels compelled to engage with these countries on a long-term basis.

The strengthening of resilience through GRC projects is an overarching and integrated approach, which brings together the GRC's respective key sectors in a sensible and context-specific way. In this connection, if necessary, not only the central aspects of humanitarian assistance and transitional aid, but also development cooperation and the necessary transitions between the phases are addressed (cf. Fig. 3).

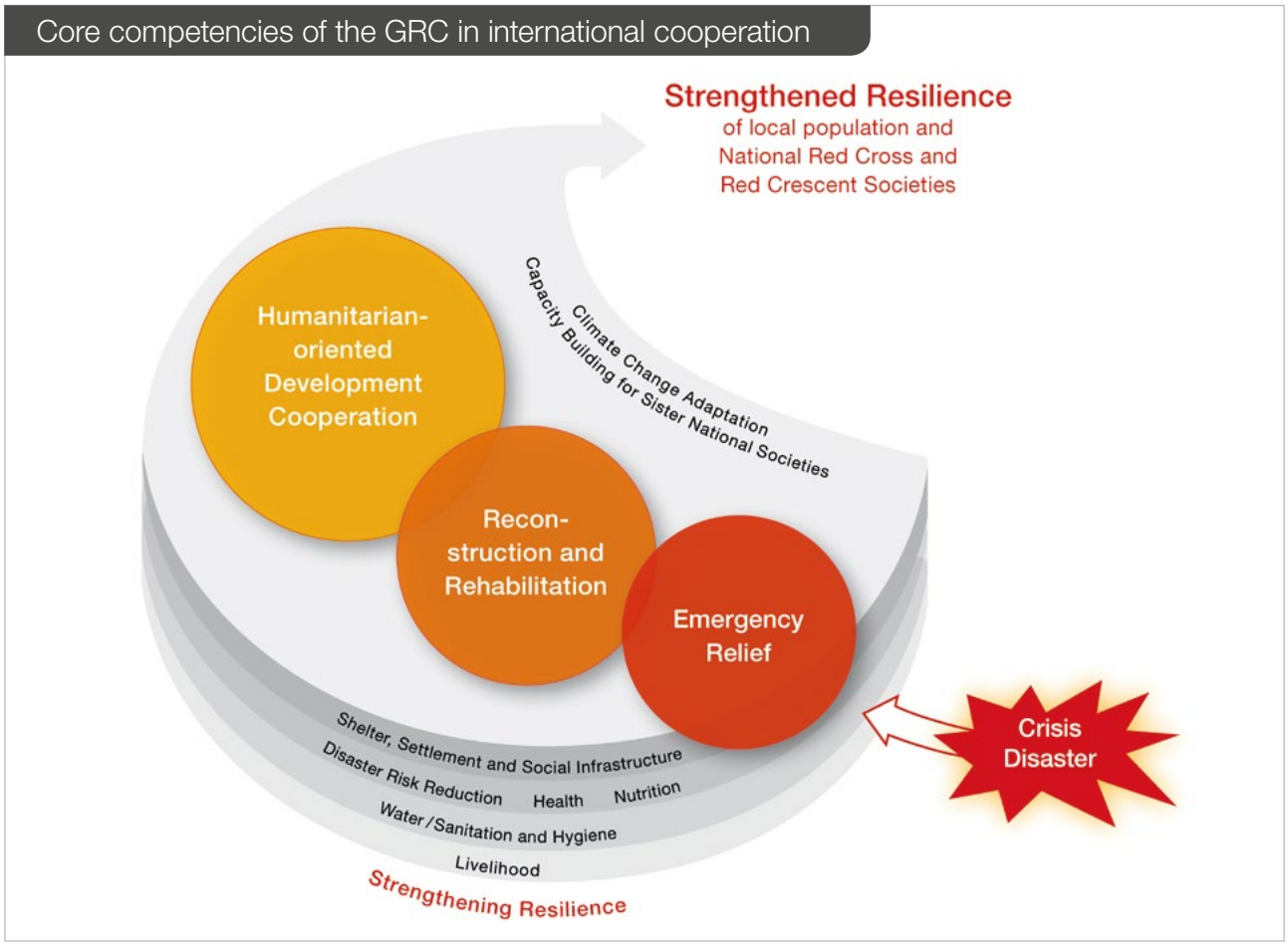

Fig. 3: Core competences of the GRC in international cooperation
Source: GRC 2017

Based on the overall objective of its resilience framework, the GRC regards its central task as organising its emergency relief in such a way that those population groups that are particularly in need are provided quick relief. In addition, a quick transition to transitional aid and to reconstruction and rehabilitation is ensured. In this rehabilitation process, the first promising opportunities that present themselves are used to diminish the risk of and vulnerability to disaster.

When planning projects, it is very important to take into consideration not only the factors of vulnerability that are identified in the respective context. Based on its understanding of the concept of resilience, the GRC regards it as its central task to also analyse the abilities and resources for self-protection that communities in various contexts already have and to integrate and strengthen them in a meaningful way at various levels.

Since both vulnerability and the existing ability for self-help are directly related to the underlying general social, cultural, environmental, physical, financial, and political conditions, these complex general conditions are given special consideration in project planning and implementation. Therefore, in its projects of emergency and transitional aid, and especially in development cooperation, the GRC follows a cross-sector and long-term policy.

As a result of this, the GRC takes an integrated approach, so an approach bridging the sectors and an approach that is oriented towards the long-term, in its emergency and transition aid and particularly in its development cooperation.

This means for DRR as an important overlapping topic and as a sectoral focus in humanitarian assistance and development cooperation, that it constitutes an essential component of the majority of the international projects of the GRC.

Taking its resilience approach as the basis, the GRC combines DRR measures for example with measures in the field of health, water/sanitation and hygiene, food security and improvement of livelihoods.

The GRC believes that it is through this sensible, programmatic and long-term linkage of its various core competences that the living conditions of the most vulnerable population groups in less developed countries can be improved and their resilience strengthened.

4.2 Integration and Mainstreaming of Disaster Risk Reduction

Even though the focus of the work of the GRC following a disaster may initially be on saving lives, assisting victims by providing them with drinking water and medical care, and distributing non-food items, DRR as an overlapping topic in **emergency and disaster response** still plays a very important role.

Figure 4 gives examples of how the GRC links disaster response to DRR in the early stages of an emergency, (so-called “mainstreaming”). In this phase, the GRC is active in the areas of search and rescue, water and sanitation, construction of emergency shelters, distribution of non-food items, and cash transfer as well as basic health. From the very beginning, efforts are made to better connect this acute emergency and disaster response with the subsequent phase of rehabilitation and reconstruction.

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 Emergency Response

Units (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.

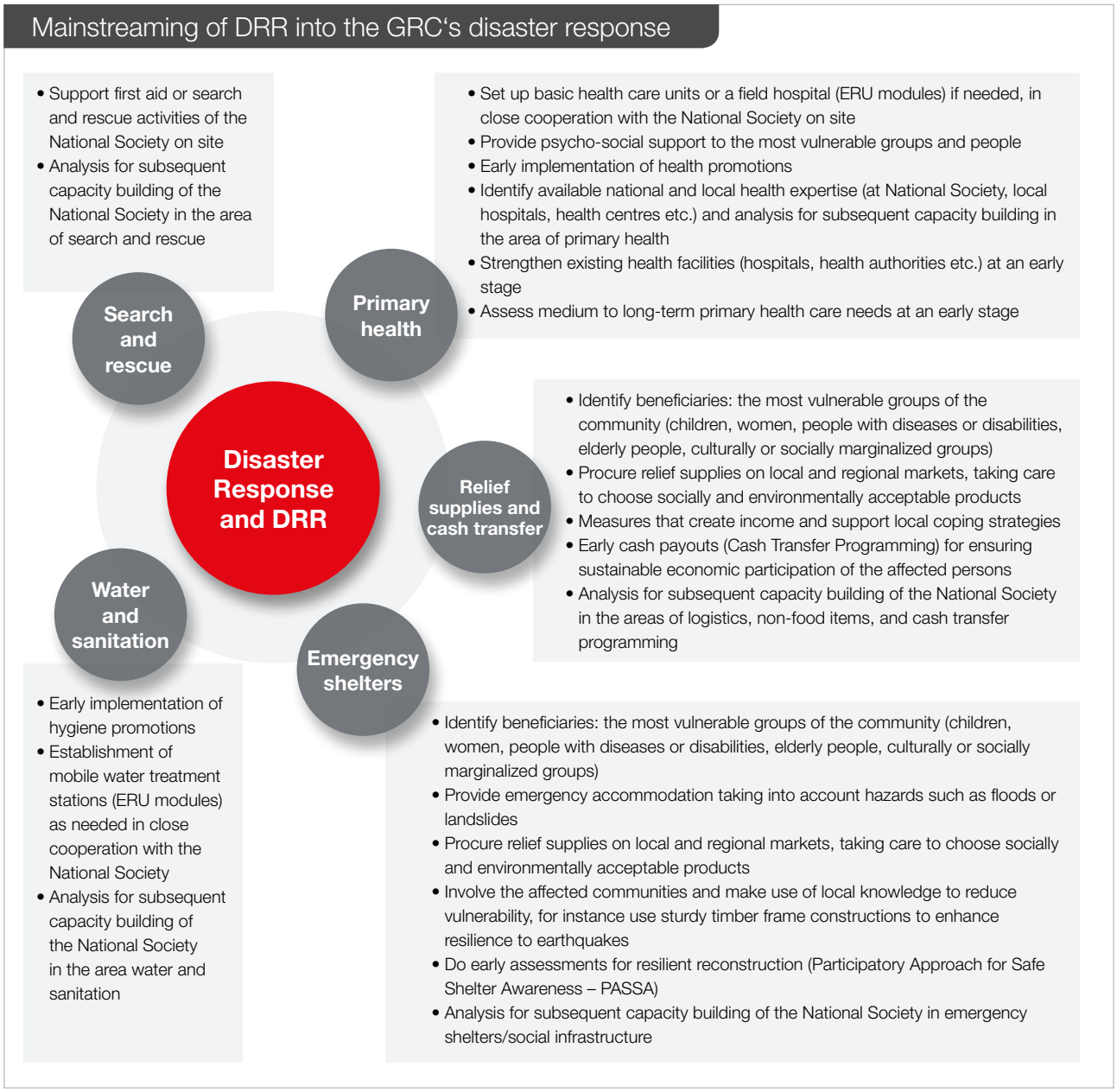

Fig. 4: Mainstreaming of DRR into the GRC‘s disaster response – some examples
Source: GRC 2017

Training of local Red Cross workers and doctors in the mobile GRC hospital during the emergency assistance phase after an earthquake in Haiti in 2010
Photo: GRC 2010

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

Earthquake- and flood-resistant reconstruction of buildings by the GRC in Indonesia after the tsunami in 2004
Photo: GRC 2008

Emergency shelter training as part of GRCs capacity building approach for Host National Societies and their volunteers
Photo: GRC/PRC 2016

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 health, water and sanitation, shelter as well as food security and secure livelihoods, and improvement of livelihood as well as capacity building for the National Society.

Fig. 5 shows examples of how the GRC integrates measures for DRR into the recovery phase. 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.

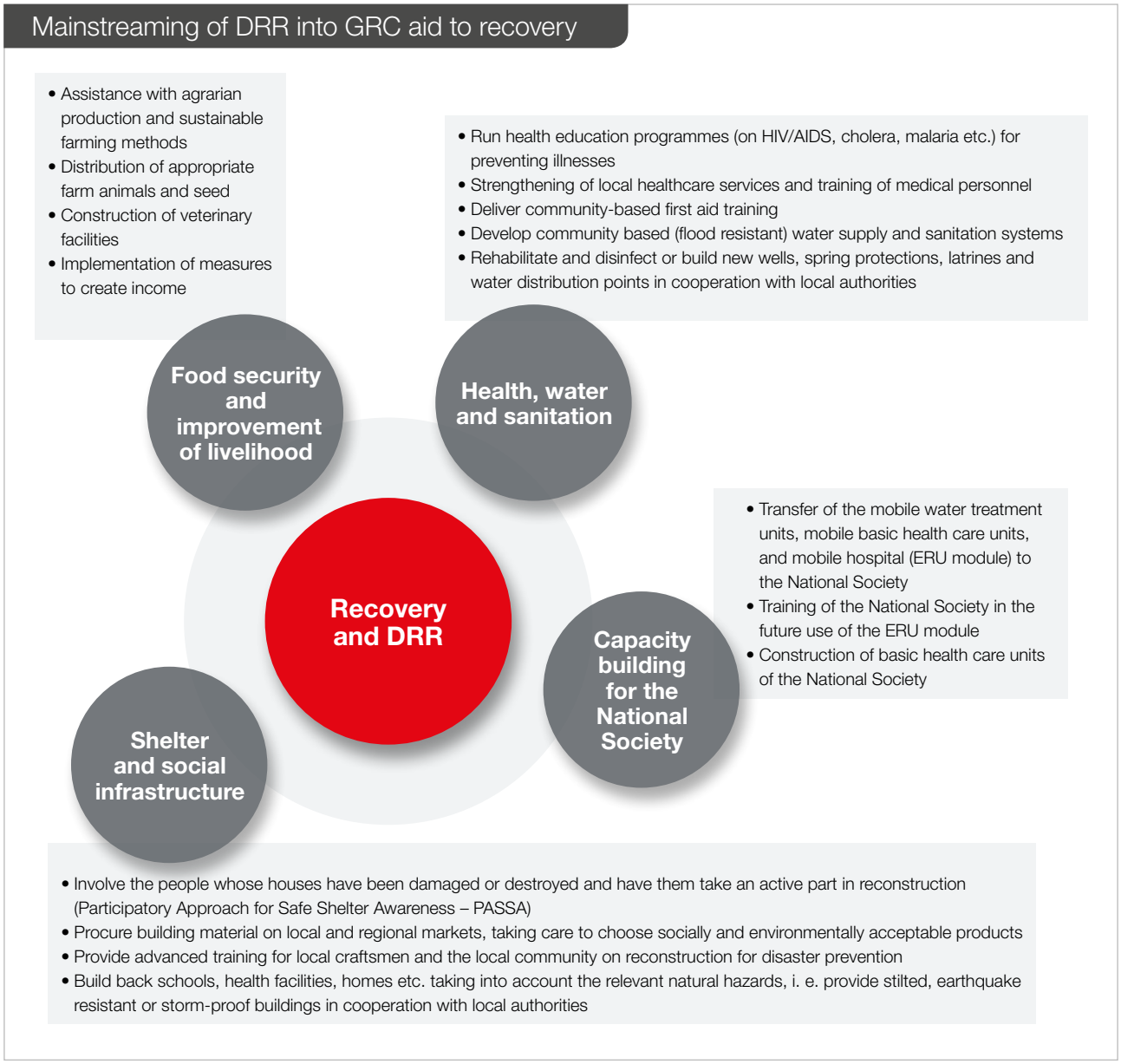

Fig. 5: Mainstreaming of DRR into GRC aid to recovery – some examples.
Source: GRC 2017

4.3 Disaster Risk Reduction as a Sectoral Focal Point in International Cooperation

For many years the GRC has been engaged in supporting affected people to develop a long-term perspective after disasters. This allows the GRC to bring together its emergency and disaster response and recovery with its long-term development cooperation guided by humanitarian principles.

On the sidelines of disasters, the GRC also works closely with its partner National Societies mainly to support destitute rural communities in less developed countries in improving their living conditions. This contributes to the implementation of the Sustainable Development Goals (SDGs) of the United Nations.

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

The supporter of the disaster risk prevention projects is always the National Red Cross or Red Crescent Society on-site, which ensures the **sustainability of the projects**. It is mainly the employees and volunteers of the National Society that facilitate successful implementation of measures, while the GRC is always ready to help with advice and support for the capacity building of its National Partner Societies.

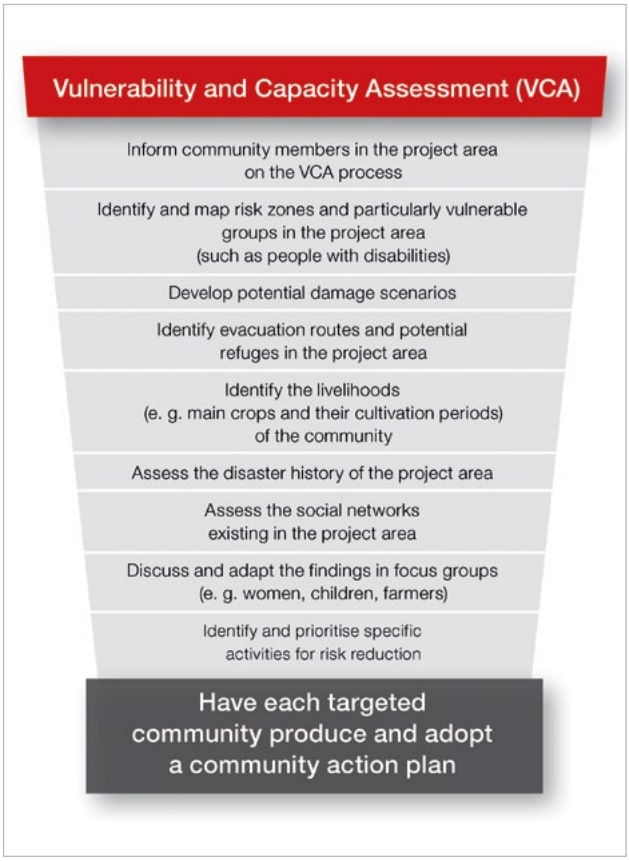

Fig. 6: Substance of a Vulnerability and Capacity Assessment (VCA)
Source: GRC 2017

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

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 to work out key risks. 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

Community members working on a participatory vulnerability and capacity assessment in Tanga, Tanzania
Photo: GRC 2013

A Sri Lankan Red Cross volunteer presents the risk map of a community taking part in a DRR project sponsored by the GRC.
Photo: GRC 2014

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.

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.

Over the past few years the VCAs have also taken on greater significance within the framework of the GRC's resilience approach. Since VCAs do not have to be limited to the analysis of natural hazards, they can generally also address a variety of risks and vulnerability factors in the project communities. Therefore the VCA method is increasingly being used as a central analytical tool in integrated, multi-sectoral GRC projects. This makes it possible to gain an overall picture of the project region and the different needs of the local population.

Within the GRCs DRR, a VCA always forms the foundation for project work. It helps to prevent and reduce the consequences of potential disasters and it prepares the National Society as well as the people in high-risk regions for future disasters.

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).

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.

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 teachers and school students, 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

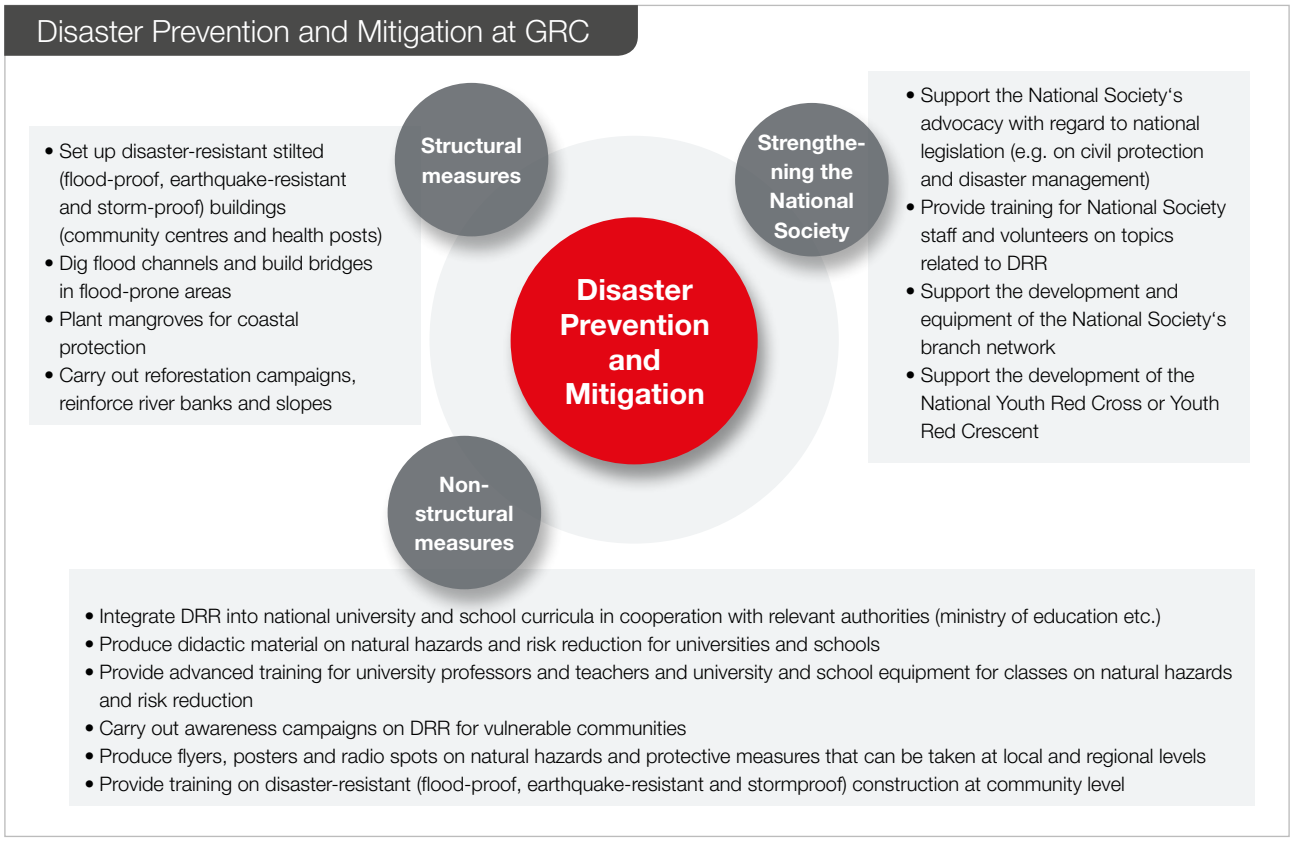

Fig. 7: Examples of disaster prevention and mitigation activities run by the GRC
Source: GRC 2017

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

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

building methods and standards or more appropriate, risk-conscious land use within community-based DRR programmes.

Disaster prevention and mitigation are most effective when activities follow up the findings of a preceding VCA and when 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 Red Cross and Red Crescent Societies a special responsibility in the event of a disaster. The GRC therefore assists the Host National Societies in establishing emergency medical services, ambulance services and appropriate information and control centres, which will enable them to

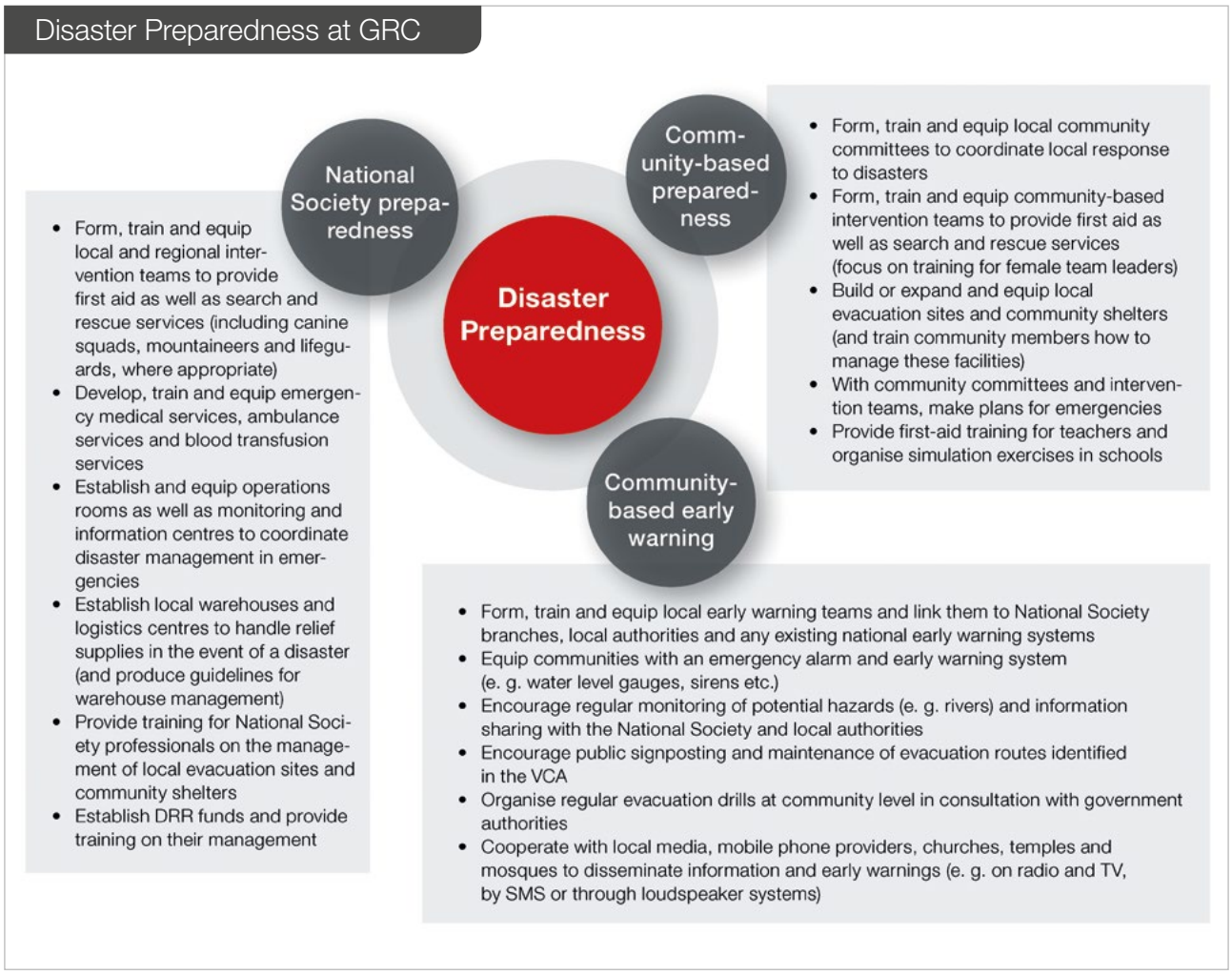

Fig. 8: Examples for the disaster preparedness of the GRC
Source: GRC 2017

Training of rescue dog groups from the Iranian Red Crescent – with GRC support
Photo: GRC 2007

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, volcano eruption, floods or tropical storms in coastal countries. The GRC pays particular attention to the participation of women in these activities.

Setting up local early warning systems is crucial in the context of disaster preparedness. 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.

This approach of the GRC is in full support of the principles and recommendations of the International Preparedness Conference 2013 held by the German Federal Government.

In eight recommendations, the participating countries and organizations put emphasis on issues such as strengthening the local civil societal structures. Sustainability should be achieved through the participation of the local population. Furthermore, the connection of early warning systems with concrete preventative actions occurring directly after the warning plays an important role in enabling the early warning system to have an added value in case of emergency (cf. FFO 2013).

The GRC supports 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 triggered. With many years of experience to draw on, the GRC and its Host National Societies know how to organise social mobilisation for DRR.

Water level gauges are monitored by local early warning teams in Togo to ensure timely evacuation of flood-prone villages
Photo: GRC 2013

GRC-supported first aid training for school children on the east coast of India.
Photo: GRC 2012

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

4.4 International Disaster Response Law

An important condition for the success of DRR is the support of the respective national governments for assistance measures. There will, however, always be disasters that overwhelm the coping structures of nations, necessitating international emergency assistance in the affected countries. In order for international assistance to support the improvement of the situation in a country as quickly as possible, an appropriate national legal basis must be present.

However, currently only a few countries have laws comprehensively governing issues of international assistance. This can cause delays in emergency operations. In particular, this affects restrictions on the import of potentially life-saving non-food items or the arrival of aid workers. Weak national coordination mechanisms can have a negative effect as well, since they could possibly force delays in the implementation of emergency assistance measures for example.

In order to support countries to establish such a legal basis, the 30th International Red Cross and Red Crescent Conference in 2007 passed a resolution relating to the guidelines for domestic facilitation and regulation of International Disaster Relief and recover assistance (IDRL).

These so-called “IDRL Guidelines” are non-binding legal recommendations for suitable domestic law, institutional, and administrative methods for handling humanitarian and reconstruction assistance in the initial phase immediately following a disaster. It was unanimously approved by all signing nations of the Geneva Convention as well as the National Red Cross and Red Crescent Societies, the International Federation, and the ICRC.

Since approval of the guidelines, the National Societies have already been able to carry out 53 support projects in order to provide their respective governments with suggestions for implementing the guidelines. 23 countries have already developed new laws, regulations, and procedures based on the IDRL Guidelines (cf. IFRC 2015a).

Examples of regulations that should be established before a natural disaster hits in order to facilitate rapid international disaster response

Personnel
- Clarification of residence permit requirements and work permits for humanitarian workers
- Easier recognition of qualifications for foreign medical personnel, architects, and engineers
- Recognition of foreign driving licences

Transport
- Simplified approval of transports with vehicles brought into the country by land, water, or air
- Easier granting of flyover approval

Relief supplies and equipment
- Easier import and exemption from customs for relief supplies used for emergency assistance (food, medication, vehicles, telecommunications equipment, etc.)

5 The Challenge of Climate Change

Anthropogenic, human-induced climate change is one of greatest challenges for the international cooperation of the GRC. The strains of climate change are amplified by demographic growth and particularly urbanisation, which in less developed countries often lacks structured planning, leading to dependence on vulnerable supply channels and the over-exploitation of vital resources.

In its fourth assessment report of 2007, the IPCC estimated a potential warming of 6 degrees Celsius until the end of the present century. The resulting sea-level rise will endanger the existence of people living in coastal areas and a great number of island countries. This warming is mainly caused by the unchecked emissions of greenhouse gases, particularly carbon dioxide due to the use of fossil fuel sources and deforestation (see Fig. 9).

The IPCC addressed extreme weather as a consequence of climate change in its special report in 2012. It clearly illustrates the hazard posed by an increase of extreme weather conditions. The report emphasises the increased risk that climate change poses to disaster-prone population groups in less developed countries (cf. IPCC 2012).

In the second part of its fifth progress report from the year 2014, the IPCC provides a more detailed description of the concrete risks associated with climate change (cf. IPCC 2014b). Several of the depicted risks would cause severe humanitarian needs, which highlights the relevance of climate change for the international cooperation of the GRC:

- Loss of human life and increase in injuries due to intensified extreme weather events
- Destruction of the basis for life and livelihood in flat coastal regions and less developed island nations due to storm damages, tidal waves, flooding, and rising sea levels

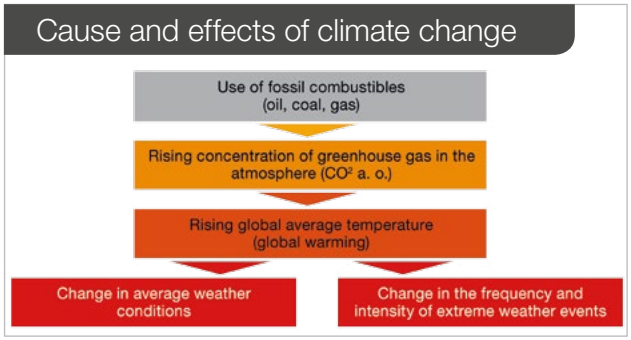

Fig. 9: Cause and effects of climate change
Source: GRC 2017

- Occurrence of serious illnesses and destruction of base of life in densely populated and urban regions as the result of floodings
- Increase in food insecurity for impoverished population groups due to droughts and floodings
- Loss of the income basis for communities in rural, semi-arid regions through worsening access to water and loss of agricultural productivity
- Destruction of ecosystems and the corresponding biodiversity with negative consequences for the basis of life and livelihoods that depend on this.

Climate change certainly is not just a future problem. It is happening already now and is particularly affecting the living conditions of people in developing countries. In less developed countries, extreme weather events can cause the collapse of entire infrastructures. Against this background, even the UN Security Council deals with the effects of climate change on global development on a regular basis. In an informal meeting in 2015, it classified climate change as an international security risk (cf. Permanent Mission of Spain 2015).

The UN climate negotiations (United Nations Framework Convention on Climate Change, 21st Conference of the Parties) in Paris in 2015 yielded a result that, if

implemented properly, could mitigate the worst impacts of climate change. In order for it to be successful, all signing countries must achieve the goals they agreed upon. If it is not successful, there is an acute threat that climate change and the resulting extreme weather events associated with it will further increase humanitarian crises, with the poorest and weakest being hit hardest.

Here the GRC sees the risk of intensified poverty, especially in countries that are currently less developed. This in turn could erode the achievability of the Sustainable Development Goals, passed by the member states of the United Nations in September 2015 (cf. BMZ 2015b).

Specific climate models can identify regions that face especially high risks, such as the Sahel Zone, Western and Southern Africa, the Caribbean, Southern Asia, and Southeast Asia. These are regions where the GRC in some cases has been working closely with the National Societies for decades.

The consequences of climate change will therefore continue to immediately affect the areas where the Red Cross and Red Crescent Movement is actively working: An increase in disaster events poses new challenges for acute disaster response and also necessitates additional efforts for subsequent recovery processes. In order to ensure that humanitarian actors are not overwhelmed, further strengthening these capacities for response to disasters will be paramount.

However, simply strengthening response capacities is no longer sufficient for addressing climate change. The effects of climate change will also be experienced in the sectors of shelter, health, food security, water, sanitation and hygiene, and improvement of livelihood. For example, usable farmland and global drinking water reserves threaten to decline.

Therefore an integrated project approach is needed, that takes into account DRR as an independent sector, but also in combination with the other sectors mentioned. This empowers people in developing countries to better adapt to the consequences of climate change and prepare for extreme weather events.

As part of its resilience approach, the GRC takes these considerations into account by linking the different sectors in its project work in a context-specific way. In the process, it is very important to include future climate risks when planning DRR measures.

A global increase in damages caused by extreme weather events can be expected as the result of climate change, like the damages caused by Typhoon Haiyan in the Philippines.
Photo: IFRC 2013

6 Adapting to Climate Change and Forecast-based Financing

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

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 for the GRC to support the communities and National Societies in these countries in adapting as effectively as possible to those consequences of climate change that are no longer avoidable.

Cooperation with scientific institutes, such as with the weather service here in Uganda, are important requirements for better integrating weather and climate information into the projects
Photo: GRC 2013

The wide range of experience and approaches used in DRR is key to designing effective CCA. The focus is on strategies that have already been used in the past to address extreme weather events, which will now have to be adapted to take into account the risks of the future.

The Federation was one of the first major organisations outside the environmental 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 (RCCC) 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.

At the International Red Cross and Red Crescent Conference held in 2007, the crucial importance of supporting CCA in conjunction with DRR was also recognised 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. (cf. IFRC 2007).

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.

With its network of 190 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.

6.1 Integration of Climate Change Adaptation into International Cooperation

From its experience in international cooperation, the GRC has identified six practical steps for the integration of CCA into its project work:

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 respective Host 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 the project implementation and thus also before the participative community-based VCA.

The climate risk analysis is divided into three steps (see GRC, DWHH 2015):

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 or 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 or lack of knowledge on risk reduction
- Describe the potential risks threatening these communities, for instance destruction of homes or 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, mitigate potential risks, and improvement of the water supply

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

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.
Photo: GRC 2012

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 only looking at disaster history and present hazards, the VCA takes into account 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, 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
- 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
- Review 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 cooperate to build new partnerships with other actors involved in climate change research 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 nongovernmental actors involved in disaster management, environment and climate protection and players from the corporate sector.

The National Societies on the ground 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: Information and training
In cooperation with the National Societies, 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
- Training for relevant actors from administration and politics in order to show them options for action and methods for minimizing risks, so that suitable assistance activities can be initiated in a timely manner when disaster strikes
- 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 5: Documentation and 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 6: Advocacy on behalf of disaster-prone groups
The GRC and its partners advocate 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.

6.2 Forecast-based Financing

One focus area of the GRC with regards to adaptation to the consequences of climate change is the concept of Forecast-based Financing (FbF) for specific early actions carried out based on forecasts of extreme weather events.

More frequent and increasingly more intense extreme weather events caused by climate change pose an enormous challenge for the population of developing countries. At the same time, the ability to forecast such weather-related risks is constantly being improved. Even today, there are numerous forecasts regularly predicting increased risks of extreme weather events for certain regions (e.g. El Niño - and La Niña - forecasts, forecasts for the hurricane, cyclone, and typhoon season, drought forecasts, heat and cold waves, etc.). Nevertheless, humanitarian assistance often remains very reactive instead of proactive and anticipatory.

Based on concrete flooding forecasts, non-food items were distributed to the threatened population several days before the onset of a predicted flood in Uganda on November 2015.
Photo: GRC/RCCC 2015

In the case of the drought and famine in the Horn of Africa in 2011 numerous rainfall forecasts did indeed warn of the impending disaster months in advance. However, the international humanitarian community only initiated an extensive reaction to the state of emergency once the drought disaster and famine began.

One reason for this is the different financing mechanisms in today's donor landscape:

- Project financing in development cooperation for long-term reduction of vulnerability to disasters and the effects of climate change (e.g. measures to protect against a sea level rise) is unsuitable for reduction of short-term risks that arise.

- Classic project financing of humanitarian assistance for emergency relief and transition assistance is usually released once the disaster has already caused serious damage.

In the opinion of the GRC it is of crucial importance to enable the financing and implementation of specific early actions based on existing extreme weather

forecasts. This can prevent or lessen the impact of humanitarian emergency situations.

Besides working with partners in at-risk countries on long-term climate adaptation and risk reduction, GRC also supports National Societies in responding earlier and better to short- and mid-term increases of extreme weather risks. Early use of scientific extreme weather forecasts can make it possible to use scarce financial resources considerably more efficiently. Early actions can prevent human suffering, while also reducing humanitarian consequences and the costs for emergency relief after an extreme weather event. There are numerous low-cost yet highly effective early actions that can be carried out when forecasts indicate a high probability of an extreme event like floods occurring.

To this end, GRC is working closely with the Red Cross Red Crescent Climate Centre, its Partner National Societies, meteorological institutions, and government authorities in numerous high-risk pilot countries to further develop and test the innovative FbF approach, thus improving the use of scientific extreme weather forecasts. During this process the GRC considers it especially important to

Seasonal rainfall forecasts from November 2015 for El Niño 2015/2016

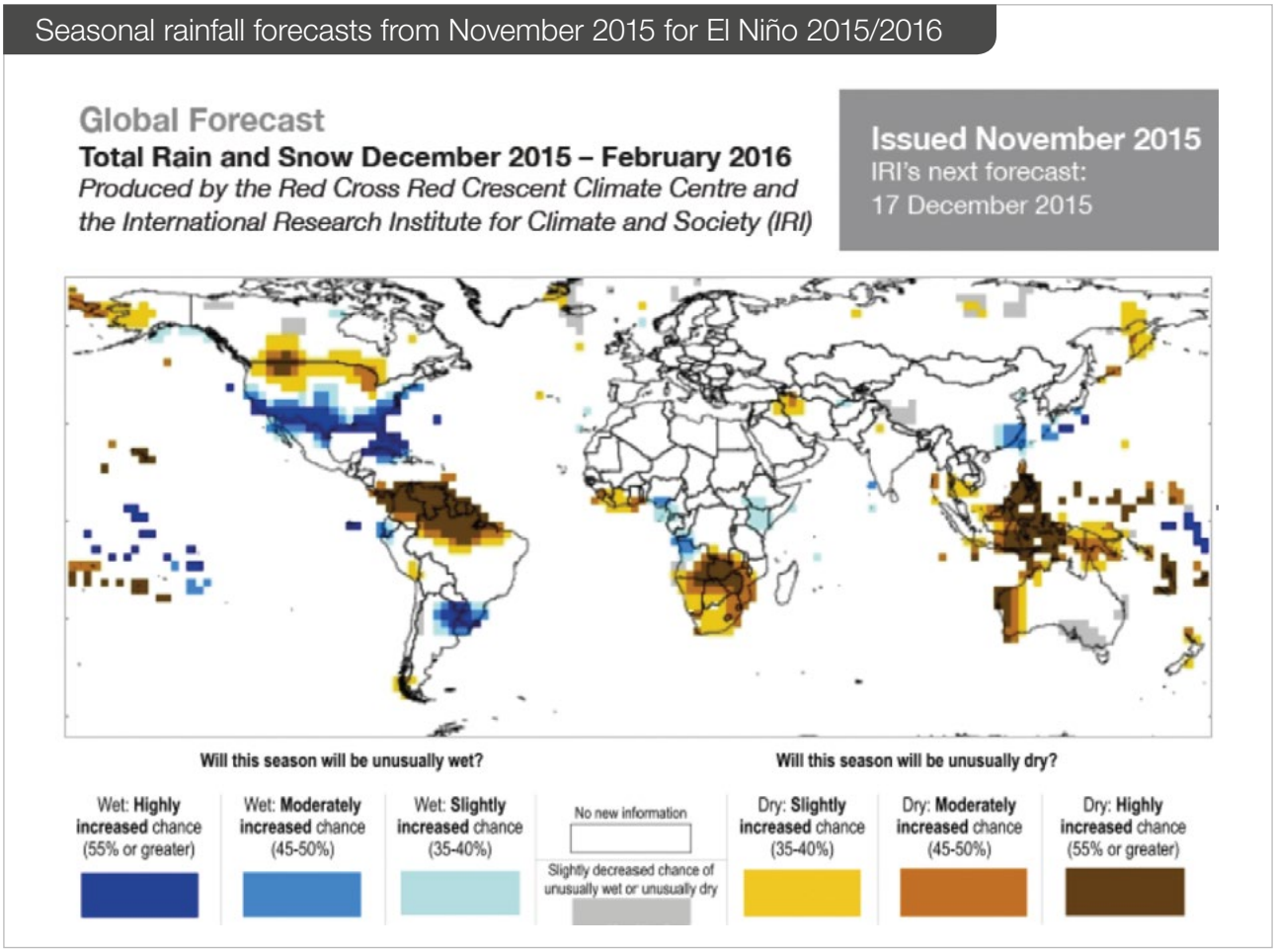

Fig. 10: Seasonal rainfall forecasts like the one from November 2015 for El Niño 2015/2016 must be better utilized to prepare the population pre-emptively for the increased risks of extreme weather.
Source: RCCC/IFRC 2015

build upon the existing mechanisms in the country and make use of functional early warning systems.

The scientific methodological challenge lies in the fact that the precision level of information available on extreme weather hazards differs greatly depending on the time frame covered by forecast and climate information (years, months, weeks, days, hours). Acting years in advance would provide a lot of time for the reduction of risks, but often there is very little detailed information available about the concrete effects of climate change. A few days before an extreme weather event occurs, however, detailed information is available but very little time remains for risk reduction.

On the basis of this varying information, specific measures can be assigned for the respective timescales, depending on which information was available at the time (Fig. 13 depicts this with the example of flooding).

Fig. 11: Often financial resources to fund measures for humanitarian aid are only made available once a natural disaster has already hit. Since risks caused by climate change are increasing worldwide, waiting it out just isn't an option.
Source: GRC/RCCC 2016

Fig. 12: Natural hazards caused by weather can often be forecast: Through extreme weather forecasts humanitarian agents can obtain information about when and where such events may occur. This allows them to possibly take action in the timeframe between the warning issued by the forecast and the actual arrival of the natural hazard to avert damages to the potentially affected persons.
Source: GRC/RCCC 2016

As a result of El Ninõ forecasts at the end of 2015, the local population in Peru was prepared ahead of time for the threat of floods; buildings at risk of flooding were stabilized.
Photo: GRC/RCCC 2015

Over the course of several years, for example, it would make sense to integrate the long-term risks that have already been recognized into the emergency plans of the at-risk communities, regions, and countries and implement general measures for DRR.

Mid-term to short-term extreme weather risks can be systematically reduced prior to a potential disaster by developing **special thresholds** for early warning systems.

When these thresholds are reached, specific early actions are carried out within the framework of pre-defined early action protocols or **standard operating procedures (SOP)**, e.g. prepositioning and distribution of non-food items, refresher trainings on hygiene, additional training for humanitarian helpers on-site, the stabilization of buildings, preparation of evacuation sites, and finally the timely evacuation of the population at risk (see Fig. 11 and 12).

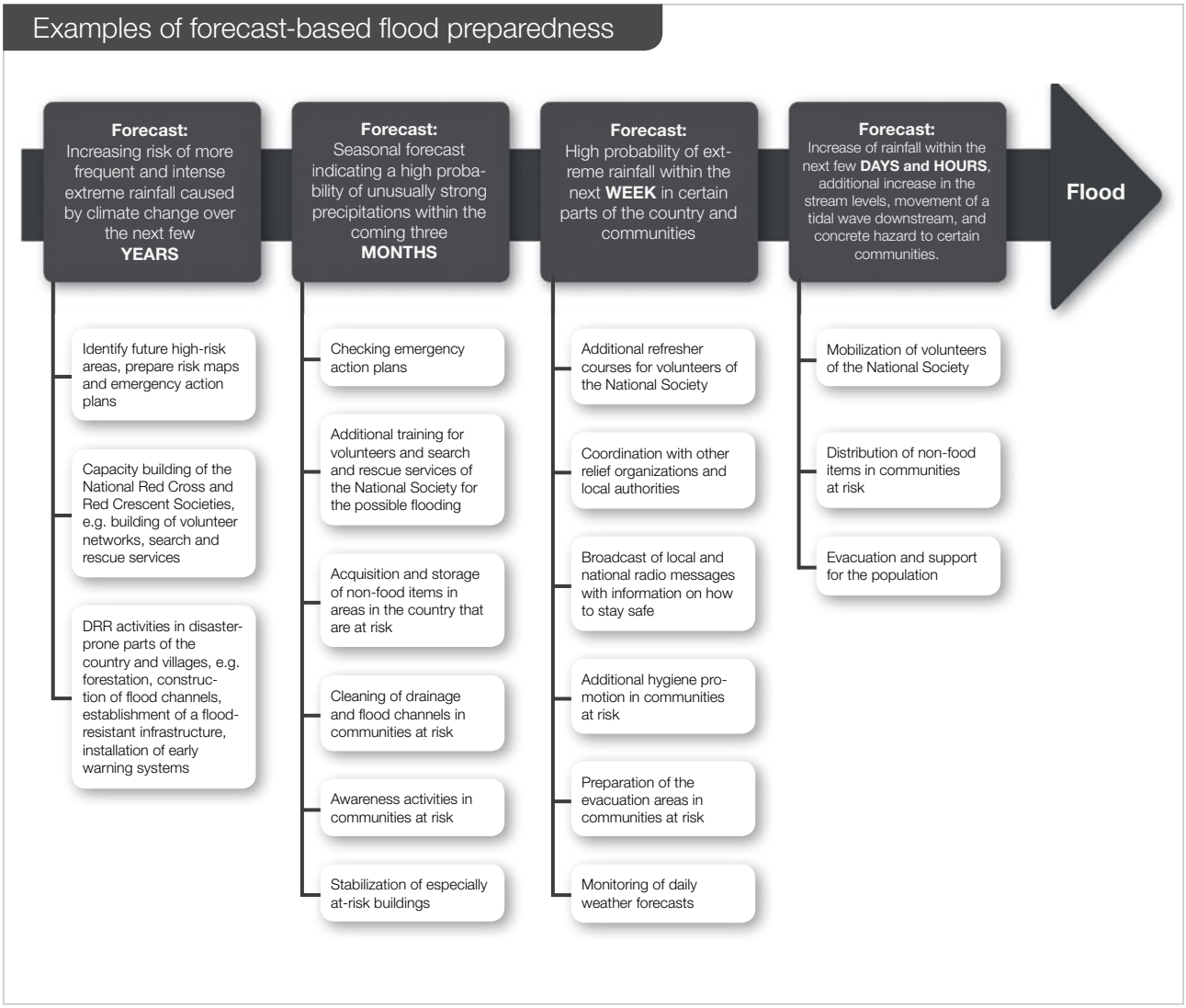

Fig. 13: Examples of forecast-based flood preparedness
Source: GRC 2017

Financing of such early actions based on a concrete extreme weather forecast is referred to as Forecast-based Financing (FbF).

To facilitate the development, testing and promotion of the FbF concept, the Germany's **Federal Foreign Office (FFO) has launched an action plan on humanitarian adaptation to climate change in 2014, the implementation of which is coordinated by GRC**. This action plan is central to achieving a paradigm shift in the humanitarian system towards improved preparedness. As part of the Federal Foreign Office Action Plan, GRC has piloted FbF projects in Peru, Bangladesh and Mozambique between 2015 and 2017. Additional experiences have been gathered in Uganda and Togo.

The action plan and the GRC pilot projects will be continued in a second phase from 2017 to 2020. The following priorities have been identified for this second phase:

- Consolidation and further development of Early Action Protocols (SOPs): In the context of the second phase plans for early action should be developed and adjusted in a way that allows their implementation in different communities depending on the forecast.

- Building Evidence - Measuring what matters: To successfully establish FbF in national and global systems of Disaster Risk Management (DRM), it needs to be shown that FbF does indeed reduce the humanitarian impact of extreme weather events – suffering, losses and damages – when implemented correctly.

- Strengthening capacities: Strengthening of capacities in terms of knowledge and equipment will be continued in the second phase with the objective to put National Societies in the position to independently manage the implementation of early actions based on forecast information and take a lead in the advocacy to integrate FbF in national systems.

- Establishing a financing mechanism for early actions based on forecasts: Only when funds are rapidly available actions can be taken before the disaster occurs. The Foreign Office and GRC are working on financing mechanisms that can make funds available quickly and ensure that they reach the humanitarian actor when needed.

- Alliance for Action – Convening a community of practice at national, regional and global level: Achieving an FbF system for as many locations and hazards as possible requires a coordinated dialogue process.

The dialogue platform relating to the action plan of the FFO brings together humanitarian actors, scientific experts, representatives from disaster management institutions and donors twice a year to collectively further the development of the FbF concept.
Photo: GRC 2015

Being responsible for the coordination of the action plan, the GRC works closely with a multitude of actors to address the topic of climate change and CCA. The implementation of the action plan of the FFO is carried out in collaboration with the IFRC, the RCCC, the United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA), the World Food Programme (WFP), international climate experts, national weather services and state disaster management authorities of the pilot countries. In yearly dialogue platforms at international and regional level, these organisations, stakeholders from the pilot countries and organisations interested in FbF come together to exchange experiences and further develop FbF.

7 Outlook

The GRC relies on private donations, but also on public funding by national, European and international institutions to ensure its successful work. For this, the GRC takes on the task to communicate the necessity and benefits of DRR and CCA to governments, donors and the public at large.

The efforts of the Red Cross and Red Crescent Movement can neither serve as a substitute for policies or political action, nor do they intend to do so. National legislation on DRM is a political responsibility of national governments. The GRC can, however, contribute to the strengthening of local capacities. It can also support the National Societies to serve in their role as civil society actors within the relevant legislation. For example, they could contribute by creating local and regional emergency and deployment plans.

Even the most advanced DRR does not offer solutions to all humanitarian and development challenges. However, in a globalised world that shares a common interest for enhanced disaster preparedness, the GRC views DRR as an important instrument towards a safer future.

In many parts of the world, appropriate DRR reduces loss of lives, personal distress and material damages. It has the potential to support the social, economic and political development of a country even after extreme natural events, thereby contributing to sustainable development and social peace.

The GRC will therefore continue to advocate the view that the numerous proven and successful DRR measures are integral elements of CCA. This is primarily aimed at the different humanitarian and developmental actors. In addition to adapting to climate change, the GRC continues to develop its measures to take into account the growing urbanisation in developing countries as well as its activities in fragile contexts.

Urbanisation

While in 1950 more than two thirds of the world's population lived in rural areas, two thirds will live in cities and urban settlements by 2050. This urbanisation process demands for sustainable urban planning, which also provides an opportunity for better protection from disaster impacts.

For cities in developing countries, rapid growth can, however, also lead to overburdening and unplanned growth. Often, vulnerability to disasters is increased by informal settlements and non-compliance of building codes. Emergency and evacuation plans often do not exist, partly due to the informal nature of the settlements. Seismically insecure buildings can further present a massive danger for inhabitants (cf. Bündnis Entwicklung Hilft/ United Nations University 2014).

In order to tackle these challenges, in the further development of its DRR approach GRC will focus on urban areas, taking into account local conditions of urban spaces.

Disaster Risk Reduction in areas affected by conflict

The implementation of DRR measures in fragile and conflict-prone regions will pose another challenge for the GRC's future work.

Nearly 60 % of humans killed by natural disasters worldwide have lived in the 30 most fragile countries. Weak public structures in fragile contexts, alongside with all-encompassing needs, present major challenges to DRR work in these countries. (cf. Peters, Budimir 2016).

For the GRC, this implies that needs assessments require a significant broadening of their scope to ensure that besides local capacities, vulnerabilities and natural hazards, concrete aspects of fragility and conflict are also taken into account. Furthermore, new approaches to account for conflict-sensitive environments are necessary.

Continuing development of Forecast-based Financing

FbF is immensely important for the GRC to make sensible use of extreme weather information for its international cooperation. This will ensure the GRC's capacity to act in spite of uncertainty in climate projections and long-term climate risks.

FbF pilot projects not only reduce the humanitarian impact of extreme weather events but also contribute to the longer term improvement of preparedness in high-risk countries, by e.g. supporting the installation of early warning systems, enhancing the National Societies' early action capacities and strengthening public DRR processes in developing countries.

Cash transfers as an instrument for Disaster Risk Reduction

The increasing use of cash transfers to alleviate disaster impacts will be another focus of the work of the GRC in the coming years. Cash transfers – in the form of cash or vouchers – is gaining importance as an instrument of humanitarian assistance. Particularly in situations with functioning markets, handing out cash for covering basic needs can have many positive effects. It provides those in need with the dignity to decide for themselves what they need most urgently. Cash assistance can further be delivered to the beneficiaries directly and efficiently without additional costs. Existing infrastructure is used for the transaction, such as mobile phone payment systems, with debit cards or as cash disbursement.

Nevertheless, cash transfers as an instrument of DRR also entail many challenges. In contrast to traditional emergency assistance, it is much harder to estimate the actual onset of a disaster in preparedness activities. This implies that all preparation procedures necessary for quick cash disbursement in case of a disaster need to be established in advance and be kept up for indefinite time, until a disaster strikes. This poses challenges of its own. For example, larger sums of cash would need to be prepositioned at local bank branches. The time available between the forecast and the extreme event is often limited to a few days or even hours. Thus, on weekends and bank holidays cash distributions might not happen rapidly enough.

Disaster Risk Reduction, Climate Change Adaptation and strengthening resilience

The areas of DRR and supplementary measures for CCA will continue to play a key role in the planning and in the implementation of projects within the international cooperation of the GRC.

There will be a special focus on the further development of GRC's resilience framework and the improved integration of DRR and CCA strategies into other sectors and competences of the GRC's international cooperation.

It is only through an integrated and holistic approach that disaster prone societies can be supported in sustainably reducing their vulnerabilities and improving their preparedness for future natural disasters.

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List of Abbreviations

BMZ	Federal Ministry for Economic Cooperation and Development
CCA	Climate Change Adaptation
CTP	Cash Transfer Programming
DRR	Disaster Risk Reduction
ERU	Emergency Response Unit
FbF	Forecast-based Financing
FFO	Federal Foreign Office
GRC	German Red Cross
ICRC	International Committee of the Red Cross
IDRL	International Disaster Response Law
IFRC	International Federation of Red Cross and Red Crescent Societies
IPCC	Intergovernmental Panel on Climate Change
LRRD	Linking Relief, Rehabilitation & Development
PRC	Peruvian Red Cross
RCCC	Red Cross Red Crescent Climate Centre
SFDRR	Sendai Framework for Disaster Risk Reduction
SOP	Standard Operating Procedure
UNFCCC	United Nations Framework Convention on Climate Change
UNISDR	United Nations International Strategy for Disaster Reduction
UNOCHA	United Nations Office for the Coordination of Humanitarian Affairs
VCA	Vulnerability and Capacity Assessment
WCDRR	World Conference on Disaster Risk Reduction
WFP	World Food Programme

German Red Cross

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

Humanity

The International Red Cross and Red Crescent Movement, 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 among all peoples.

Impartiality

It makes no discrimination as to nationality, race, religious beliefs, class, or political opinions. It endeavours to relieve the 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 Movement 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 only be one Red Cross or 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 worldwide.