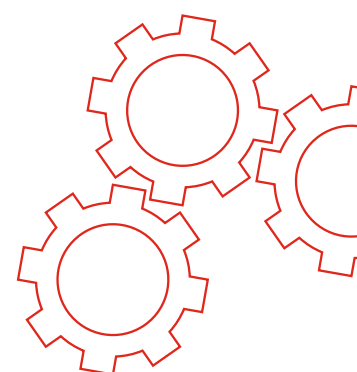


# What is climate-smart programming and how do we achieve it?

March 2020

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## Introduction

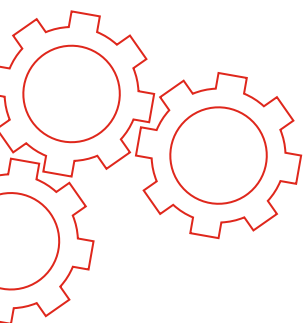
The humanitarian system is under pressure from climate impacts that are aggravating existing vulnerabilities such as poverty, conflict and displacement, requiring a long view from humanitarian organizations and donors.

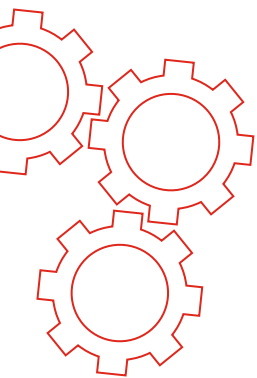
It is the stories and evidence from our staff and volunteers worldwide that are now capturing the world's attention and providing the backdrop for international policy processes – stories from places that are becoming entirely uninhabitable, of coastal areas now too risky to live in, and from farmers who do not know how to feed their families.

A combination of deep concern and powerful voices demanding change placed climate change at the top of the agenda for 33rd International Conference of the Red Cross and Red Crescent in December 2019. The rapidly rising demands on the Red Cross and Red Crescent humanitarian system mean we have to engage in climate-related policy dialogues and scale up climate-smart programming around the world.

As emphasized in the International Red Cross and Red Crescent Movement's [Ambitions to address the climate crisis](#), the scaling up of climate-smart programming is key. This is echoed in the IFRC's Strategy 2030, focusing on 'integrating climate risk management across all of our programmes, operations and advocacy'.

The ambitions call for further guidance on the practical aspects of climate-smart programming for National Societies, and that is the aim of this note. In Section 1, we start with the concept of climate-smart for the Red Cross Red Crescent.





## 1. What is climate-smart programming?

There is no universally accepted definition of ‘climate-smart programming’. It equates simply to ‘good and sustainable programming’ supporting development and enabling people to anticipate, absorb and adapt to climate shocks.

It stresses the need to use climate information across timescales, considering landscapes and ecosystems as key areas of intervention – all in close collaboration with governments, specialists and the private sector.

Most of our development, preparedness, response and recovery work is affected by climate variability and change, such as more intense rainfall, prolonged droughts, more intense storms and heat waves. We must adjust to the new context of increased uncertainties, growing vulnerabilities, scarce resources, future trends and long-term change in general.

For the humanitarian and development sectors, **climate-smart programming means that planning is not only based on past and current risks, but also prepares for future changes and variability** (see [Table 1](#)). It is ironic that the best way to explain what climate-smart means is to indicate what would fail if we don’t make our work climate-smart.

We have seen examples of government or private investors establishing irrigation schemes in rivers that go dry, for example, or drinking water tanks that get flooded. It is these types of unsustainable practices that fail to allow for what is likely – even in the near future – and hence fail to be climate-smart.

We have seen examples of government or private investors establishing irrigation schemes in rivers that go dry, for example, or drinking water tanks that get flooded. It is these types of unsustainable practices that fail to allow for what is likely – even in the near future – and hence fail to be climate-smart.

**Table 1. Levels of integration of climate change in our work.**

Climate-smart	<p>Programmes and operations have made use of available climate and weather information (both short-term weather and seasonal forecasts and long-term climate projections) in designing and/or adjusting activities to ensure that they contribute to reducing long-term risks and vulnerabilities, including likely unprecedented extreme events.</p> <p>In doing so, programmes and operations ensure that, at a minimum, they do not place people at increased risk in the future considering likely new climate-related extreme weather-events and growing vulnerabilities, and if possible/ appropriate, empower communities to anticipate, absorb and adapt to climate shocks and long-term changes.</p>
Climate-aware	<p>Programmes and operations have used past and current climate and weather information in the design of activities (based on past extremes and forecasts) but not longer-term climate projections.</p>
Climate not considered	<p>Programmes and initiatives that have not considered changing climate risks or made use of climate and weather information. This may be deliberate because climate may not be affecting the particular activity, or it may be due to lack of capacity or resources.</p>

Green response and mitigation of carbon emissions are also part of climate-smart programming. We will continue to prioritize disasters as a humanitarian organization, but it is important that different trade-offs are explored by National Societies for greener solutions in their work. We need to increasingly embrace interventions that reduce risks and vulnerabilities for people, through providing environmental solutions that could reduce emissions and increase quality in ecosystems, waste, energy, water and forests.

In addition, the Movement aims to play its part in reducing carbon emissions and greening our own ways of working, contributing to limiting the long-term impacts of climate change on vulnerable people and the planet. Climate mitigation is an obligation on us all. We need to continue to innovate and explore new types of climate mitigation programming in communities, which could become strategic components of humanitarian operations or part of long-term programmes. These aspects are described in section 5.

The following sections of this paper will elaborate on preparatory steps, planning, implementation and complementary actions to enable an environment for climate-smart programming that is applicable to the entire humanitarian-development continuum, as exemplified below and in the IFRC's [Framework for Climate Action Towards 2020](#).

## 2. What steps will make our work climate-smart?

The practical guidance below supplements the examples on climate-smart programming listed in the Annex (see pages 37-41) to the [IFRC Framework for climate action towards 2020](#).

### 2.1 Assessing how climate may affect people, vulnerability – and our work

A starting point for a National Society is to assess how current and expected changes may affect vulnerability and hazard patterns in their respective country or in a project area, and use this information to inform prioritization within and amongst programming and initiatives (Fig. 1). The assessment may draw on publicly available information on climate trends and projections - maybe supplemented by a specific request to national weather agencies – coupled with the National Society's own insights into disasters and vulnerability patterns from recent disaster needs assessments and community programmes, if applicable.

Below are the types of broad questions that should be guiding the National Society when assessing changes in of climate risks and how to adjust National Society programming:

- What are current climate trends and how could extremes develop?
- Which hazards and risks (see Figure 1) are changing most and how does this affect vulnerabilities?
- What sectors and which vulnerable people will be most affected in a changing climate?
- What early warning systems exist and which stakeholders are active with them?
- What institutional changes may National Societies consider? (for instance, having a climate change focal point that can coordinate collaboration across departments and with Hydro-Met Service, having Early Action Plans in place, etc.)
- How can disaster risk reduction (DRR) and preparedness for response in general be reinforced?
- Do legal and policy frameworks take weather and climate into account?
- Are existing funding models adapted to climate change and changing risks?

The assessment and the questions above apply to the overall National Society planning and programming. For getting started on collaboration with the weather agencies, the guidance note [Collaborating with national climate and weather agencies: a guide to getting started](#). More specific tools exist for community-based efforts and will be listed below.

**Figure 1.** Risk as a combination of hazards, exposure and vulnerabilities

## Climate-smart programming

...Begins with a proper diagnosis of risk

**Hazard.** Which (new) climate hazards and extreme weather events are occurring?



**Exposure.** Are homes, businesses, infrastructure and people in the path of the storm?

**Vulnerability.** What makes exposed people, homes, businesses, infrastructure susceptible to harm?



## 2.2 Planning and implementation

Overall, climate-smart programming is about adjusting all the National Society's activities and plans so they can face new weather conditions and extremes.

This includes ensuring that staff, volunteers and vulnerable people are not taken by surprise by extreme weather. A key aspect is making use of weather forecasts (days, seasonal) and climate projections (years and decades) and investing in capacity building for people to access, understand and translate those warnings at different time scales to practical actions. This applies to whatever programmes the National Society is implementing or supporting: Humanitarian response and recovery operations, long-, medium- and short-term risk reduction and disaster preparedness, livelihoods planning, WASH and disease prevention etc. All need to be scaled up in the face of climate change, taking climate risk-information into account. Examples are provided below.

## 2.3 Monitoring and evaluation

Since climate-smart programming is often experienced through 'learning-by-doing' within National Societies, learning, monitoring and evaluation are important components to ensure the activities are not just 'business-as-usual' but actually adjusted based on available evidence and projections of changing risk patterns. We encourage 'learning-by-doing' and exchange of knowledge, experiences and skills.



## 2.4 Disaster management – and Preparedness for Effective Response (PER)

Climate-smart disaster management means including scenarios that consider climate trends and weather extremes, and ensuring that proposed measures take these into consideration. Anticipatory action is a key element of being climate smart. The impacts of extreme weather events can be reduced if preventive action is taken before the events hit, based on forecasts. This requires applying the [early warning, early action](#) approach in disaster preparedness planning (see further below for Forecast-based Actions).



Red Cross volunteers man the table for registration of residents affected by flood caused by Typhoon Koppu that will receive food items and sleeping mats at Barangay Delfin, Albano, Isabela, north of Manila on October 20, 2015. (Noel Celis / IFRC)

One of the most obvious entry points for climate-smart disaster management is the process of developing contingency plans for new or unprecedented weather extremes (see [IFRC Contingency Planning Guide](#)); relevant questions to consider include:

- What is a realistic worst-case scenario for a disaster considering the new weather extremes projected for the region?
- What preparedness and planning measures could address new extreme scenarios?
- Review location of humanitarian warehouses: would they be safe and accessible in case of unforeseen extreme events?
- Is there a need for training more volunteers to assist in rescue and relief operations in case of new extreme events?
- Do we need to establish volunteer teams (and conduct early warning awareness raising with inhabitants) in new areas that have been relatively safe in the past, but may be at risk in case of new extreme events?



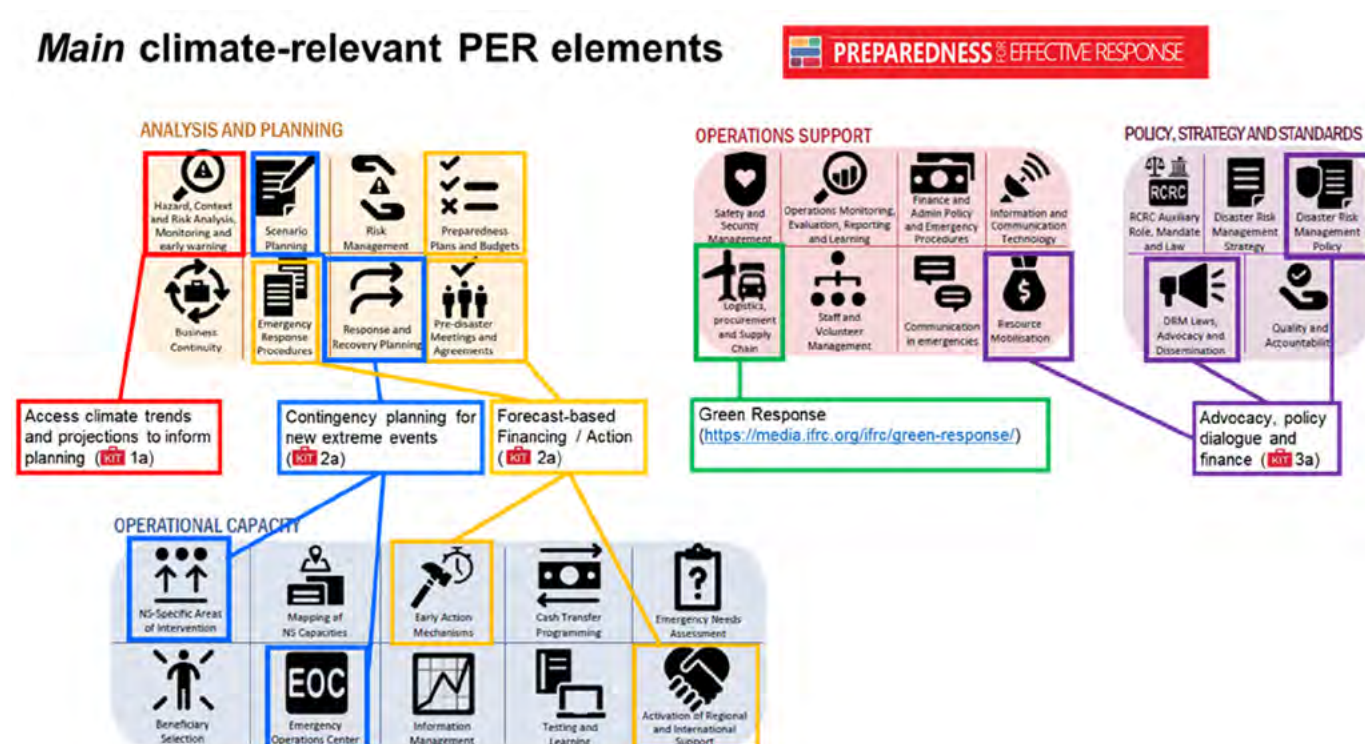
- Are planned sites for camps for refugees or displaced people safe from extremes such as floods or storm surges? How would the planned shelters feel in extremes of heat or cold?

It is also key to consider climate-smartness in relation to the broader preparedness efforts under [IFRC's Preparedness for Effective Response \(PER\)](#). The elements of the PER where climate-considerations are most relevant to consider are marked in Figure 2 below. In the Climate Training Kit and other sources offer further guidance on how to consider climate in the highlighted areas.

In addition, specialised anticipatory actions are being developed and under scaling-up: With IFRC's fund for early action (called [Forecast-based Action by the DREF](#)), funding and pre-defined early actions can be triggered prior to a potential disaster as part of the [forecast-based financing approach](#) (see this [manual](#)).

In relation to [post-disaster recovery](#), safe zones – also for new extremes – need to be considered before rebuilding or relocation, e.g. shelters on higher ground or platforms in flood-prone areas. The WWF/American Red Cross [Green recovery and reconstruction guidelines](#) provide guidance for integrating climate adaptation into project design, water and sanitation projects and construction projects for post-disaster recovery programming. In addition, a PER environmental sustainability guidance is under development.

**Figure 2.** Main opportunities for integrating climate considerations in the PER efforts



## 2.5 Long term community resilience

For long term community resilience programming, it's important to ensure that they are based on assessments that include the future-climate and ecosystem lens as incorporated in the IFRC's enhanced Vulnerability and Capacity Assessment (EVCA) guidance. Conducting an EVCA also provides local evidence of patterns of vulnerability and adaptation needs which the National Society can carry forward in their advocacy work (see below). When using other assessments tools, e.g. the participatory assessments used in CBHFA programming, seeking inspiration in the EVCA can help climate-smart programming in other areas of work.



Gloria Hermanto, Disaster Risk Manager with the German Red Cross in Mozambique, stands in the drought-affected village of Mochinho, Chokwe district. Here, the German Red Cross is focusing on food security, water and sanitation and disaster risk reduction activities (Aurélien Marrier d'Unienville/IFRC)

The findings on vulnerability can then be considered in relation to weather and climate patterns on which scientists can now provide good information (if not for a specific locations).

It's important to collaborate closely with national agencies providing meteorological and hydrological services and others. (See the Climate Training Kit, Modules 1a, Science and impacts and 2c, Community resilience and climate.)

Climate-smart community planning (see [Figure 3](#) below) – based on EVCA or similar assessments – needs to take into account new or changing extreme events along with the changes in exposure and vulnerability, including:

- Risk reduction and adaptation measures can then be designed from an understanding of climate trends, backed up by strengthened capacity to act on forecasts.



- Stakeholders, partners and vulnerable groups can be supported in understanding [early warning, early action](#) – and the associated community preparedness measures such as team training, evacuation plans and WASH infrastructure can be developed with new extremes in mind.
- Risk reduction hardware ‘micro-projects’ in community plans should be designed with the best technical advice available, to withstand new or more intense extremes (see examples and exercises C and D in the Climate Training Kit, [Module 2c, Community Resilience and Climate](#), which also includes further reading and materials).



Dhemaji, Assam, India. Villagers at the No.2 Gheyari Gaon which was flooded by the water from Jiadhal river in Dhemaji, Assam in September 2020. As flood waters were receding, Dhemaji was hit by a fresh wave of floods due to incessant raining in the first weeks of September. (Indian Red Cross Society)

Community resilience projects that ignore climate projections and extreme uncertainty may be undermined and create a false sense of safety and security. For example, an irrigation scheme might stop functioning along a river that goes dry, or rising sea-levels or flash floods may jeopardize sustainability of drinking water projects.

Another important elements is for communities to have an opportunity to explain their particular adaptation needs to local government; National Societies can help sharpen focus on the most vulnerable and marginalized people.

The 2013 [Minimum Standards](#) is a practical checklist to help local community leaders and National Societies ensure their community resilience efforts are climate-smart.

## 2.6 Reducing our environmental footprint – ‘greening’ our operations Greening

The Red Cross Red Crescent Movement is aiming to reduce its carbon emissions and make progress in greening our ways of working, reducing our CO<sub>2</sub> footprint and playing our part in limiting the long-term impacts of climate change on vulnerable people and the planet.

Climate mitigation is an obligation for of our organizations. In many cases, green solutions are cheaper to sustain and less environmentally harmful; much of our work on disaster resilience includes benefits from ecosystem services like clean water or nature-based measures to control floods and erosion.

This helps to reduce risks and strengthen livelihoods, but can also help to reduce greenhouse gas emissions – when planting or protecting trees, for example.



Partners for Resilience (PfR) now supports a wide variety of work in Indonesia, a country where geography and topography make people vulnerable to extreme weather and seismic hazards like the Lombok disaster. Local coastal mangroves are also being revived as part of the PfR programme. (Fleur Monasso/Climate Centre)

Our focus will always be on interventions that reduce risks and vulnerabilities for people, but where possible we give special consideration to win-win solutions that also reduce carbon emissions.

Among our efforts to reduce our carbon footprint is the [green response](#), while programmes such as Partners for Resilience also apply [ecosystem criteria](#). Green Response is a way in which we, as a Red Cross Red Crescent Movement, approach our work that emphasizes stronger accountability towards affected populations by actively promoting alternative, more environmentally beneficial solutions in addressing needs. In short it is about extending the fundamental humanitarian principle of ‘do no harm’ to the environment and ecosystems which the people we seek to assist are reliant on, recognizing that sustainability is generated through environmentally sound actions. Mainstreaming



Green Response in operational contexts can facilitate a swifter recovery and builds on established mechanisms in the communities – with a further opportunity of enabling more innovative, environmentally sustainable solutions to be promoted and established.

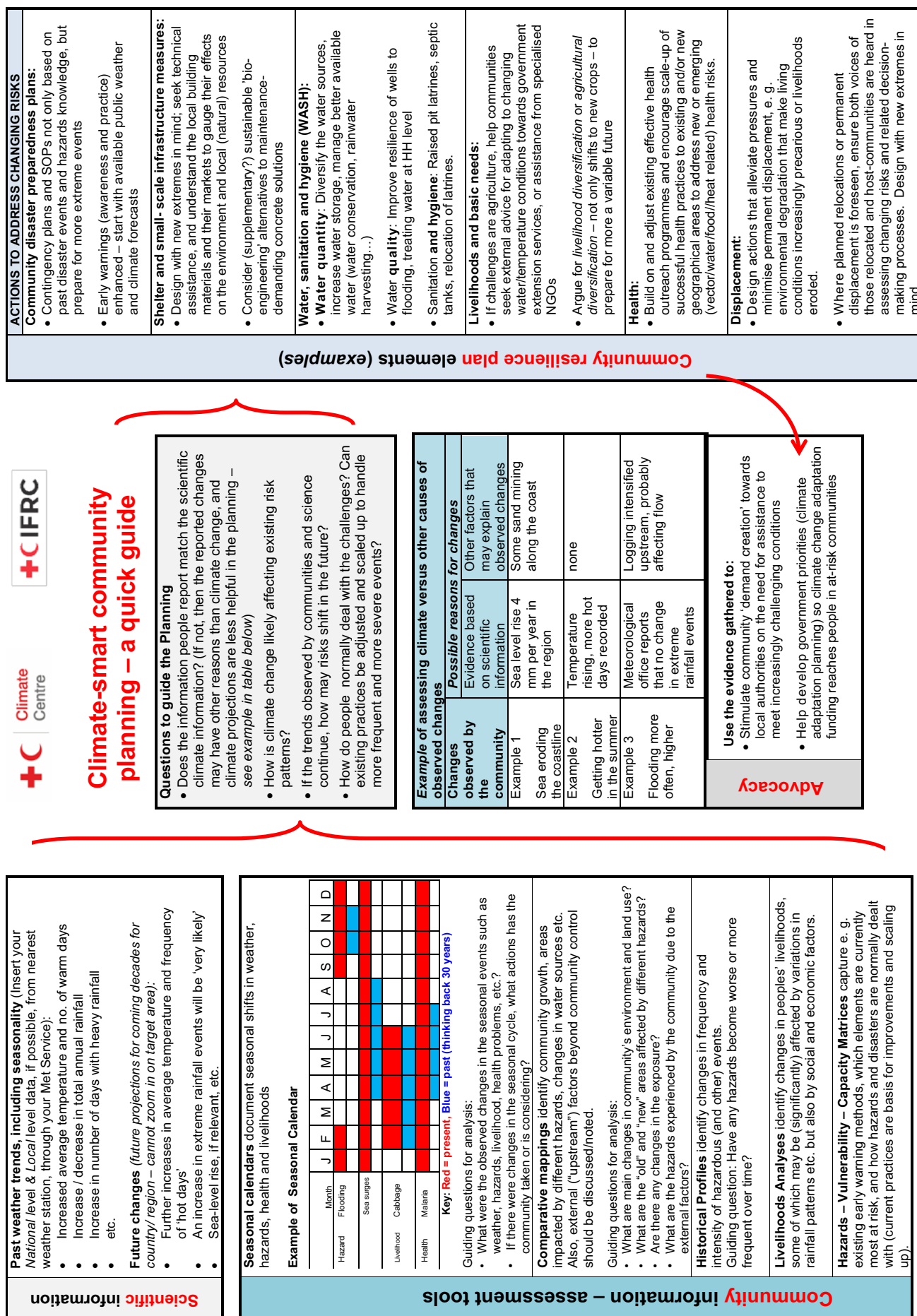
Many National Societies have been promoting nature-based solutions such as the IFRC's Caribbean [Resilient Islands](#) project, inland reforestation in [Kenya to reduce slope erosion and water runoff](#), or mangrove planting in [Indonesia](#) and [Vietnam](#).

A [2011 IFRC study](#) of Vietnamese Red Cross coastal afforestation found that every year it compensates for the average emissions of 425,000 people. This is surely a great example of win-win-win-win activity – reducing disaster risks while providing adaptation, mitigation, livelihoods and health benefits. The IFRC is a member of the [Global Mangrove Alliance](#) which will also allow us to strengthen our work on nature-based solutions. More broadly, watershed and wetlands management is key to limit the damages from floods and storm surges. Coastal wetlands, such as mangroves noted above, protect against flooding and serve as buffers against saltwater intrusion and erosion. Inland wetlands such as floodplains, lakes and peatlands absorb and store excess rainfall, which reduces flooding as well as delaying the onset of droughts by storing water. Protecting the watershed can help sustain the water source, and provide other services such as water retention and filtration; the [training kit for green recovery and reconstruction](#) provides a chapter on using a watershed management approach.



The Red Cross planted mangrove trees in several coastal provinces of Viet Nam to help reduce the effects of typhoons and large waves.  
Photo: International Federation

Figure 3. Climate-smart community planning – a quick guide



### 3. Strengthening the enabling environment for climate-smart programming

In order to ensure our climate-smart programming is sustainable and leads to broader institutional changes, we need to engage with many different actors, engage in policy dialogues, strengthen capacities and raise awareness about the urgency of climate change.

#### 3.1 Advocacy and dialogue on policy

National Societies gain a lot of insights on vulnerabilities and adaptation needs through the regular interventions with volunteers and people at risk. These perspectives can be used to contribute to policy and planning processes and to advance our in advocacy work. In particular, National Societies could:

- Present learning and evidence from community assessments, resilience planning and disaster assessments to policy-makers to demonstrate that local climate-smart disaster risk reduction and early warning early action need to be included/integrated in local and [National Adaptation Plans](#).
- Engage in dialogue with authorities for the potential development of disaster laws and policies that include perspectives on climate change.
- Initiate partnerships and dialogue with actors who can support climate-smart programming. Which ones are already investing in climate change adaptation? Which ministries or other agencies are active?
- Is the private sector engaged? Is there already a good working relationship with agencies providing hydrological and meteorological services?

The Climate Training Kit's [Modules 3a and 3b](#) offer material on climate-related policy dialogue and partnerships, including a new working paper on [companies and resilience](#).



## 3.2 Capacity strengthening and awareness raising

Apart from the internal capacity building of leadership, staff and volunteers in the National Societies and other Movement entities on climate-smart approaches, we should ensure vulnerable people are aware and prepared for changes to come and, more broadly, the public is aware of the need for adapting and how to contribute to reducing carbon/environmental footprints:

- Invest in awareness raising on how to access, understand and translate forecasts and early warnings into effective early actions.
- To raise awareness, consider ‘out-of-the box’ ideas like art and games; or appoint ‘ambassadors’ who can spread your message.
- Mobilize volunteer and youth groups; a dedicated curriculum called [Y-Adapt](#) is available for National Societies to empower youth to take action. In addition, interactive methods like [flash mobs](#) and ‘tactical urbanism’ can motivate them still further.



In late May 2018 the Y-Adapt programme came to Guatemala. A session for young people from Santa Rosa department was led by the newly trained facilitators. (PfR Guatemala)

In capacity strengthening, it is also important to be mindful of two critical points regarding adaptation:

- *Avoid maladaptation:* A prerequisite for adaptation and climate-smart programming is first to ‘do no harm’; that means to avoid actions that may be more harmful than helpful in the long run – we always need to avoid ‘maladaptation’, as it’s called. Two examples: if we support a livelihoods programme in drought-prone region by facilitating a shift in their main crops to more drought-resistant crops – instead of

diversifying to a wider range of crop types – we may risk people become more vulnerable to the flash floods and wet periods that may also be an effect of with more variable weather patterns in the long run. Or if we support a livelihoods programme where coastal mangrove forests may be cut down and turned into shrimp farms to help increase the income of local households, we also reduce the protection against coastal waves that mangroves offer – and thereby leave coastal communities more vulnerable to storm surge damages on the longer term.

- *Limits of adaptation:* While we must do all we can to reduce vulnerability and adapt to the unavoidable consequences of changing climate risks, we should also be mindful that there are limits to adaptation. This is emphasized in the IPCC Special Report on 1.5°C, where they highlight that some human and natural systems at global warming of 1.5°C will be at a loss, and beyond our adaptive capacity. IPCC's 5th Assessment Report devotes a whole chapter on the [Adaptation Opportunities, Constraints, and Limits](#).



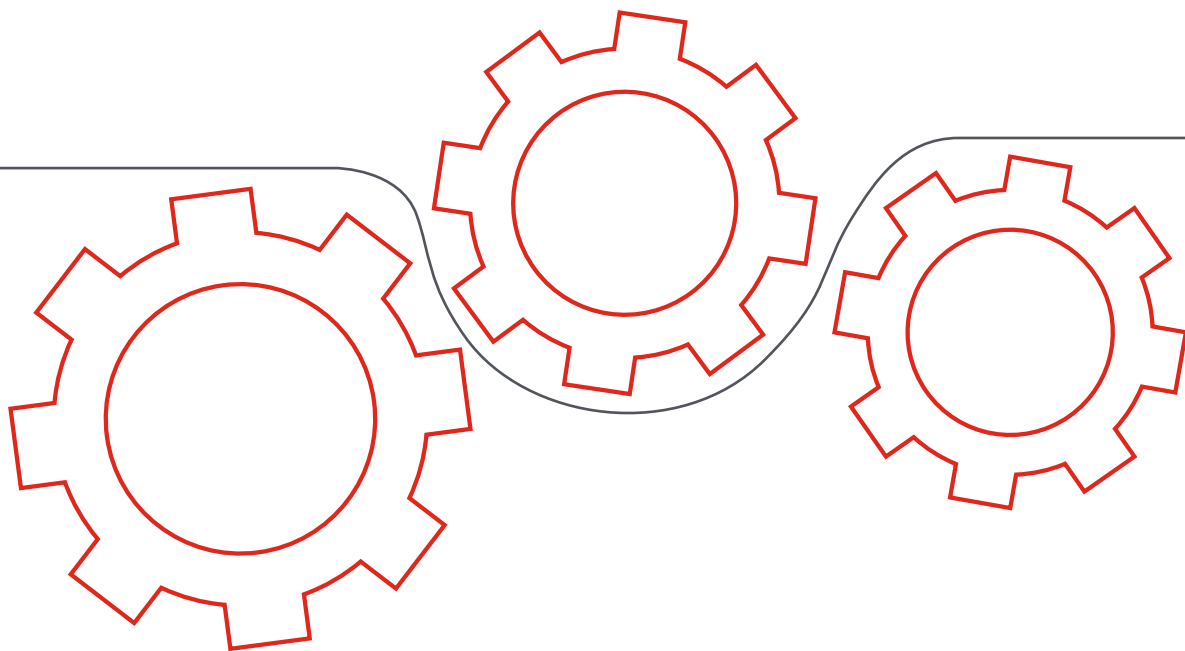
Hence, in our work we should strive to be realistic and not create false promises for people who may not be able to adapt in the long run. The challenges have most profiled in relation to low-lying areas and small island states, where rising sea levels may render certain areas uninhabitable, forcing people to relocate at some point. In the international negotiations on climate change under the UN, such large-scale effects have led to negotiations on 'loss and damage' compensation to the states most affected.

In general, strategies to deal with limits to adaptation may involve investments that have no direct links to climate risk management. For instance, investments in education systems for all - education is opening doors for individuals to pursue alternative livelihoods options and careers and, possibly, in new areas of an increasingly urbanised world.

On the fifth international climate change adaptation conference – 'Adaptation Futures 2018' Climate Centre participation included special sessions on: forecast-based financing, also involving the Belgian, German, Kenyan, Mozambican and Zambian Red Cross; adaptation and poverty; the relationship between resilience and well-being; adaptation and the UN global goals; warming cities; and (separately) narratives, dialogues, and learning from failure. South African artist Noah Rudolph created a collective message for the next Adaptation Futures. (Photo: Climate Centre)

## **Annex: Examples of climate-smart programming by sector**

Areas of work and potential interventions



## WASH

Water supply units and water storage tanks,  
rain water catchment units.



**For adjusting so changing risks are taken into account, consider:**

1. Are WASH structures (e.g. the water storage tanks on picture) designed in [collaboration with HydroMet services](#) and communities with traditional knowledge, to ensure it can withstand dry periods or higher flood records based on climate projections so it has a better chance of providing the expected services over the next 5-15 years? (The water storage tank in picture was not – it was designed long ago, before climate-smart programming was beginning to be considered)
2. Are there any indications (from rainfall and flood level trends and projections) that the flood zone is changing, and that new areas may become at-risk in the coming decade(s)?
3. Are the root causes of risks identified in the wider landscape? Can water run-off also be influenced by additional interventions in the area, such as water protection dams and terracing hill slopes, addressing ecosystem degradations, drainage of rivers, etc?
4. Are the communities aware of climate change and how it may influence them in the future?
5. Is the community empowered to voice these concerns for local adaptation planning?
6. Are the communities (or specific groups) receiving and understanding the locally available weather information, and do households know which appropriate actions to take when inclement weather is approaching?



## FIRST AID

### First Aid training to Community Disaster Response Teams and volunteers.



#### For adjusting so changing risks are taken into account, consider:

1. Heatwaves are on the rise in all parts of the world. Is there enough understanding of, e.g., heatstroke and heat stress in first aid trainings for volunteers and staff?
2. At cultural events, often the Red Cross or Red Crescent provides first aid. With potential extreme weather are we considering an advocacy role to ensure events get cancelled if it is unsafe for participants?
3. During a heat wave, is there enough attention or services in place to support elderly or outdoor workers? Are local authorities and key stakeholders aware of heat risks and actions to prevent heat impacts?
4. Is there good [collaboration with the HydroMet services](#) for warnings to extreme weather?

## DISASTER MANAGEMENT

Early warning system to households near the rivers  
Teams and volunteers.



**For adjusting so changing risks are taken into account, consider:**

1. Is the river providing a flood risks: is there a need for early warning early action and improved collaboration with upstream and downstream communities?
2. Has a landscape assessment been done to assess the river and upstream and downstream activities and investments?
3. Is there good [collaboration and coordination with the HydroMet services](#) and private sector and the water user groups/ women/ communities on weather forecasts – also for upstream areas that impact downstream river levels?
4. Have the project communities carried out ‘vulnerability and capacity assessments’ that note observed changes in weather, seasonality and hazard patterns and used the information to develop local action plans?
5. Are community groups empowered to advocate for their own adaptation needs?

## LIVELIHOODS AND DRRT

Implementation of small-scale irrigation schemes; farmers benefit from improved irrigation schemes for their crops



**For adjusting so changing risks are taken into account, consider:**

1. Is there a chance the river goes dry in with future climate projections?
2. Is this irrigation scheme in an area where farming has been severely under pressure for a while, due to, e.g., changing weather patterns, poor access to markets, etc – and is there a risk we may be supporting unsustainable farming practices?
3. Are there additional things that need to be considered in this area such as livelihood diversification to ensure we are not providing false hope for increased production?
4. Are the activities done in relation to assessments of the landscape and upstream activities and investments?
5. Can rainwater harvesting be enhanced to supplement water available in streams and wells
6. Is there good collaboration and coordination with the HydroMet services and agricultural extension services and the farmer associations on upcoming seasons and weather forecasts?
7. Do the farmers have appropriate understanding and access to seasonal weather forecasts?



## DISASTER CONTINGENCY PLANNING

Organisational preparedness activities - training of staff, prepositioning of emergency stock, identification of triggers for activation of preparedness and rapid response scenario planning etc.



**For adjusting so changing risks are taken into account, consider:**

1. What is a realistic worst-case scenario for a disaster considering the new weather extremes projected for your region?
2. What preparedness and planning measures could address new extreme scenarios?
3. Review location of humanitarian warehouses: would they be safe and accessible in case of unforeseen extreme events?
4. Is there a need for training more volunteers to assist in rescue and relief operations? And maybe establish volunteer teams (and conduct early warning awareness raising with inhabitants) in new areas that have been relatively safe in the past, but may be at risk in case of new extreme events?
5. Are planned sites for camps for refugees or displaced people safe from extremes such as floods or storm surges? How would individual shelters feel in extremes of heat or cold?