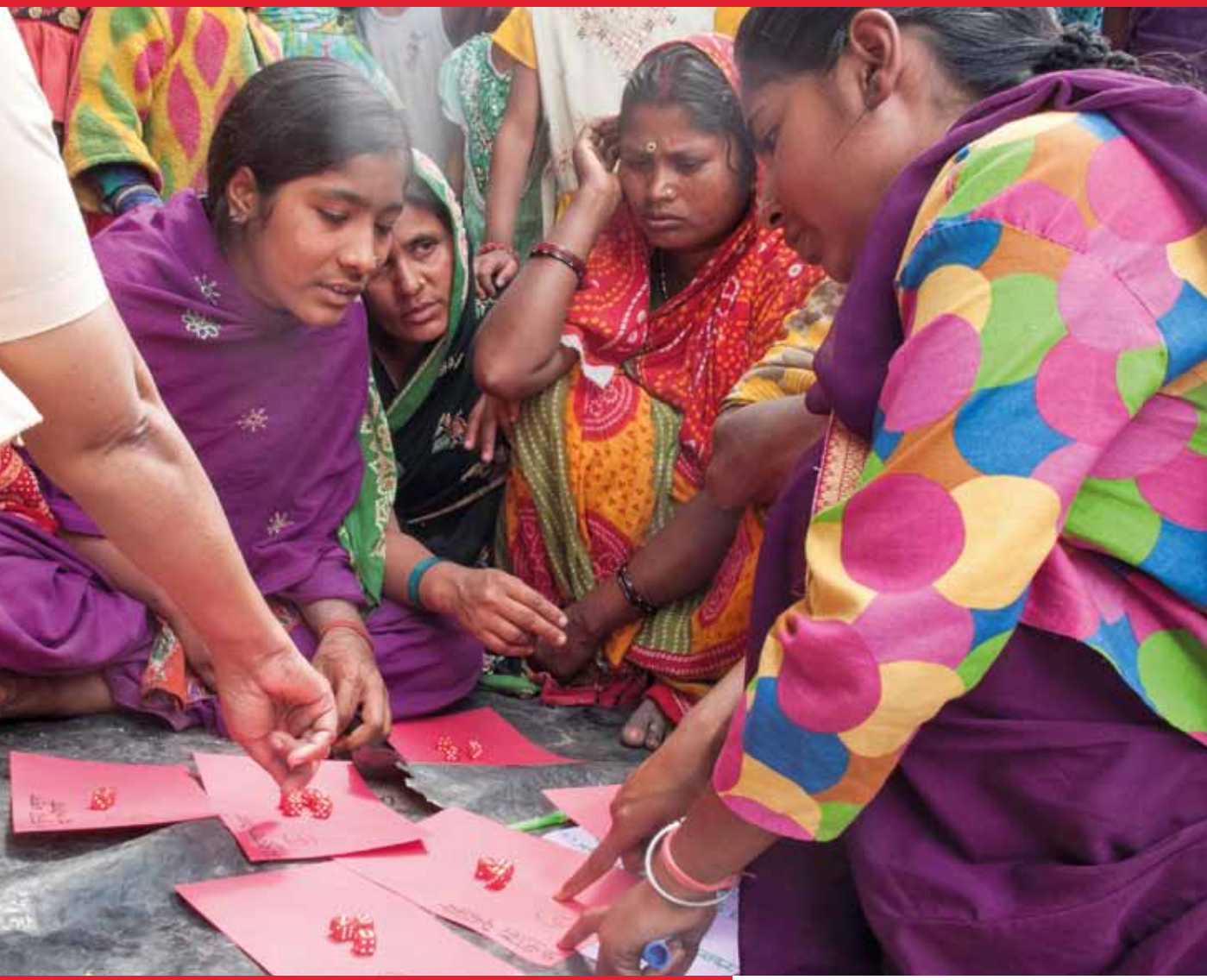
Annual Report 2013

Innovation, participation and learning in climate risk management



RED CROSS/RED CRESCENT
CLIMATE CENTRE

International Federation
of Red Cross and Red Crescent Societies

The Netherlands Red Cross

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Cover photo: In India, one of the ingredients in the Partners for Resilience programme is to help communities prone to flood or storm surges agree on contingency plans that can help them take early action when certain warning signals appear. A practical tool to guide the development of a contingency plan is the participatory game *Ready!* A workshop for trainers (pictured) was organized March 2014 in Bihar to build their capacity to facilitate the game in communities. (Photo: Knud Falk/Climate Centre)

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International Federation of Red Cross and Red Crescent Societies
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Acronyms[1]

ACCRA	Africa Climate Change Resilience Alliance
AR5	IPCC 5th Assessment Report
CCA	Climate Change Adaptation
CCAFS	Climate Change, Agriculture and Food Security (CGIAR programme)
CDKN	Climate and Development Knowledge Network
COP	Conference of the Parties (UNFCCC)
CORDEX	Coordinated Regional Climate Downscaling Experiment
CPRR	(IFRC Department of) Community Preparedness and Risk Reduction
CSO	Civil society organization
CTK	Climate Training Kit
D&C Days	Development and Climate Days (at COP meetings)
DFID	(UK) Department for International Development
DRR	Disaster risk reduction
EC	European Commission
EMR	Ecosystem management and restoration
GEF	Global Environment Facility
GFCS	Global Framework for Climate Services
ICRC	International Committee of the Red Cross
IDAMS	International Research Consortium on Dengue Risk Assessment
IFRC	International Federation of Red Cross and Red Crescent Societies
IIED	International Institute for Environment and Development
IPCC	Intergovernmental Panel on Climate Change
IRI	International Research Institute for Climate and Society
JICA	Japan International Cooperation Agency
NAP	National Adaptation Plan
ODI	(UK) Overseas Development Institute
PfR	Partners for Resilience
SREX	(IPCC) Special Report on Extremes
UNFCCC	United Nations Framework Convention on Climate Change
USAID	United States Agency for International Development
VCA	Vulnerability and Capacity Assessment
WFP	World Food Programme
WG I, II, III	(IPCC) Working Group I, II, III
WMO	World Meteorological Organization

1 For brevity acronyms for individual Red Cross Red Crescent National Societies are only given in the text.

Preface

Last year was another busy and inspiring period of innovation, participation and learning for the Climate Centre, bridging science, policy and practice. In partnership with the secretariat of the International Federation of Red Cross and Red Crescent Societies (IFRC), the Centre continues to support an ever-growing number of National Societies in addressing the humanitarian consequences of climate change. A key example is our new Climate Training Kit (CTK), used at several regional IFRC events that are starting to "train trainers" to spread the word and accelerate awareness and capacity building.

Building on that work in the International Red Cross and Red Crescent Movement, firmly grounded in local practice, the Centre also continues to influence the worlds of policy and science. For instance, the pilots of "forecast-based financing" that have now started in Togo and Uganda, with support from the German Red Cross, have generated new analysis on how forecasts can be used to trigger financial decisions. Serious games, designed to help decision-makers understand changing climate risk, are now being used by the World Bank for discussions with their finance ministry interlocutors.

The "minimum standards for climate-smart disaster risk reduction", first developed as part of the Partners for Resilience (PfR) programme, have been used by the Philippine government in planning their strategy for risk reduction. And Development and Climate Days (D&C Days) at the 2013 UN climate talks in Warsaw again proved to be a key platform for out-of-the-box thinking that the international climate negotiations so desperately need to incorporate.

This continued success was achieved by a small but talented "virtual" team around the world, assisted by our academic partners and the latest cohort of excellent interns. We thank them all for their commitment and hard work. We also thank National Societies and other partners who have contributed to our efforts, financially, materially or in generating ideas and opening policy doors. But we need to thank three individuals in particular.

First and foremost, 2013 marked the departure of the Climate Centre's founder, Madeleen Helmer, who had stepped down as director two years ago. Madeleen not only put climate change on the agenda of the Red Cross Red Crescent, established the Climate Centre and nurtured its strong team of devoted professionals, but she also contributed profoundly to the development of the international agenda on adaptation to climate change, including the sizeable overlap with disaster risk reduction. The Climate Centre – team and board members alike – are deeply grateful for all her ideas, passion and impact on policy and practice.

We also thank two departing board members. Matthias Schmale was succeeded by Walter Cotte as Under Secretary General, Programme Services, at the IFRC. And Cees Breederveld retired in January 2014 as Director General of the Netherlands Red Cross to be succeeded by Gijs de Vries. We are grateful to Matthias and Cees for their extensive contributions over the years, and look forward to continuing to collaborate with them in their new roles as, respectively, IFRC Under Secretary General for National Society and Knowledge Development, and Professor of Emergency Medicine at the University of Amsterdam.

This year will surely be another exciting one, and we look forward to continuing to work closely with all of you.

Ed Nijpels
Chairman of the Board

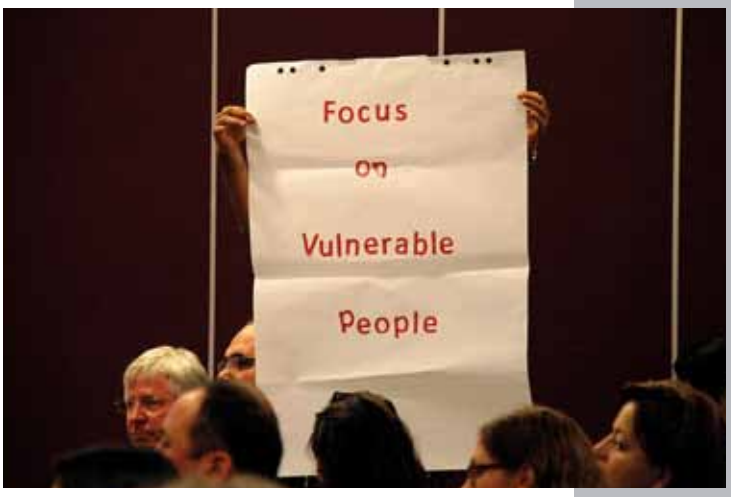
Maarten van Aalst
Director

Introduction

The Climate Centre[2] continues to support the Red Cross Red Crescent Movement ("the Movement") in reducing the impacts of climate change and extreme weather on vulnerable people worldwide, working closely with the IFRC secretariat in Geneva and its zone, region and country offices, as well as National Red Cross Red Crescent Societies.[3]

This annual report provides an overview of the Centre's activities in 2013, organized broadly by the areas of its workplan: capacity building and operational support, mobilizing resources, humanitarian diplomacy, teaching and analysis, communications, and following the future, as well as separate sections on finance and administration and annual accounts.

The Climate Centre's contribution to capacity-building work in support of climate risk management worldwide grew apace in 2013, in support of a range of National Societies and the IFRC secretariat. The main focus continues to be: better application of climate information for disaster reduction, preparedness and response; improved food security and health; guidance, training and technical back-up; and innovative approaches such as educational and decision-making games.



Participants at a side-event of the 2013 Global Platform for Disaster Risk Reduction organized by the Netherlands Partners for Resilience and other agencies. (Photo: Raimond Duijsens/NLRC)

2 The Red Cross Red Crescent Climate Centre is referred to in this report as "the Climate Centre" or occasionally to avoid repetitiveness and when clear as "the Centre".

3 IFRC "secretariat" is used in the strictly correct sense to mean both the organization's Geneva and field (zone, region and country) offices. "The IFRC" means the secretariat and all 189 member National Societies; the "Movement" means the IFRC in this sense and the ICRC. IFRC and "International Federation" are used interchangably.

1. Capacity-building and operational support

In close collaboration with the Department of Community Preparedness and Risk Reduction (CPRR) at the IFRC secretariat in Geneva, the Centre finalized an e-learning course on climate change and a Climate Training Kit (CTK) – both were being launched in 2014 – and a second iteration of the "minimum standards for climate smart disaster risk reduction" ("the Minimum Standards").

Climate Centre decision-making games continued to be an extremely succesful tool to bridge climate science, policy and practice, and were played by a huge variety of practitioners and in communities worldwide, and on one occasion at the White House in Washington, DC.

Many of these tools were generated as part of operational support to a range of initiatives by National Societies worldwide.

The Partners for Resilience (PfR), of which the Climate Centre is one, has now reached more than 500 vulnerable communities in nine developing countries – coupling local delivery to capacity building and national and international policy dialogues. Lessons from PfR are spreading to several new investments in this area and inspiring new partners.

An important new development – breaking completely new ground in the area of early warning, early action – is forecast-based financing, which has been rolled out in Togo and Uganda, with support from the German Red Cross.

The Climate Centre has an ongoing partnership with the International Research Institute for Climate and Society (IRI) at Columbia University, which provides technical support to the IFRC helpdesk, responding within 24 hours to climate-related questions from disaster managers, and advice on cutting-edge research on seasonal predictability and long-term climate trends around the world.

The IRI also continues to maintain the IFRC map room, developed in collaboration with the IFRC in Geneva, and provides global forecasts circulated within the Movement and posted on the Climate Centre website.

1.1 E-learning and the Climate Training Kit

In 2013 the Climate Centre finalized its Climate Training Kit and developed an online platform to present CTK modules, including a user guide. In addition, together with the IFRC secretariat, the Centre developed an introductory e-learning course called *Climate change – an introduction for staff and volunteers,* available at the online IFRC learning platform.

Funded by the Canadian Red Cross, the CTK includes training products aimed at enhancing the capacity of Red Cross Red Crescent staff and volunteers to help vulnerable people adapt to a changing climate. As context differs from region to region and country to country, it is largely generic. Materials are designed to be easily adjusted to local needs and contexts. But the Climate Centre continues to offer support in tailoring products and materials.

CTK modules have been developed after testing and optimizing at IFRC training workshops. Innovative resources like games and exercises are included in all modules, as well as traditional PowerPoints with speaker notes, films, checklists and Red Cross Red Crescent examples. The modules have been approved by relevant IFRC technical departments and quality-checked by Climate Centre specialists.

In 2013 CTK modules were refined at three special training events for trainers: in Kuala Lumpur for 18 IFRC staff and National Societies from the Asia-Pacific zone, in Bangkok for South-East Asian National Societies and other IFRC personnel, and in Helsinki for staff from the international department of the Finnish Red Cross.

1.2 Partners for Resilience

Partners for Resilience[4] is biggest programme for local climate-smart disaster risk reduction (DRR) focusing on ecosystem management anywhere in the world. Five alliance members work with implementing partners in Ethiopia, Guatemala, India, Indonesia, Kenya, Mali, Nicaragua, the Philippines and Uganda, covering more than 500 communities, and engaging with well over 200 government institutions, with a total budget of 40 million euros.

4 The terms "Partners for Resilience" and PfR are used variously to denote either the agencies involved (collectively) or the actual programming they manage. "The Partners" means the five main Netherlands agencies involved and their local implementing partners in the programme countries.

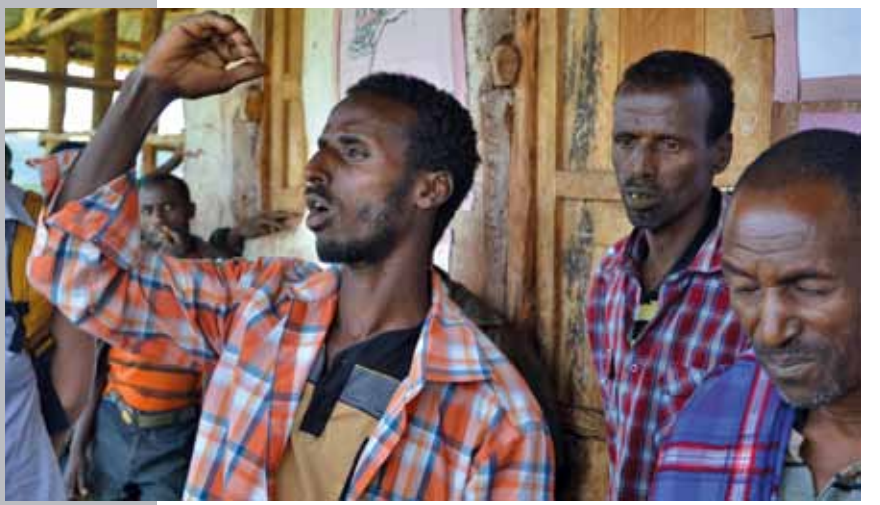
PfR is a unique opportunity to implement local climate-smart risk reduction at scale, helping to refine modalities for operational support. It also acts as a valuable laboratory that has spawned many of tools and approaches now also being made available more widely.

PfR's holistic approach – looking across time and space in addressing community risk – is now recognized as a way of making DRR more effective. PfR is generating great interest and securing follow-up funding in several locations, thereby ensuring continuity of investment.

The programme is supported by the Dutch Ministry of Foreign Affairs and comprises the Netherlands Red Cross (NLRC), CARE Netherlands, Cordaid, Wetlands International, and the Climate Centre, supporting a wide range of implementing partners in the nine programme countries and now reaching nearly 550,000 beneficiaries.

Activities on the ground include the construction of small reservoirs to improve supplies of drinking water, diversification of livelihoods as a strategy for drought, reforestation of unstable slopes, and early warning, early action. Thanks to PfR, assessment tools in project locations now include both risks *over time,* including climate change, and across *spatial scales,* including environmental dimensions such as changes in watersheds.

A big picture of global resilience has begun to take shape after mid-term reviews enabling best practice to be disseminated, operational tools to be honed, and lessons to be learned. In some countries, the Partners have expanded the number of communities they plan to work with; all deploy structured cooperation models with local disaster committees – often established as part of PfR – and are working effectively with government and NGO stakeholders.



The Netherlands Partners for Resilience conducted mid-term reviews in their nine operating countries worldwide, including Ethiopia (pictured), where local agencies have been implementing climate-smart measures to reduce disaster risk, such as reforestation, irrigation, and soil and water conservation. Wood-saving stoves have reduced health risks and eased the pressure on local forests. The provision of local breeds of goat and drought-resistant seeds helped secure the livelihoods of communities and enabled people to diversify. (Photo: Charlotte Floors/NLRC)

In March 2013 the IRIN humanitarian news and analysis service reported that PfR was one of a "handful" of NGOs worldwide actually *asking* communities what they needed to adapt to changing environmental and climatic conditions, seeking "practical ways to implement resilience while taking into account the strengths, coping mechanisms and ideas of the people they intend to assist."

In September, the Climate Centre organized a highly productive four-day PfR global work conference in The Hague to discuss the outcomes of the mid-term reviews in depth. This gathered nearly 60 people from Africa, Asia, Europe and Latin America, and enabled both "linking and learning" and future planning. Mairi Dupar, Global Public Affairs Coordinator for the London-based Climate and Development Knowledge Network (CDKN), wrote in a blog from the conference: "PfR is trying to accomplish something very ambitious [recognizing] that a complete transformation is needed in the way that local communities understand, evaluate and manage for climate-related risks."

The PfR published a compilation of case studies to illustrate their vision of resilience (*see box*). Drawing on concrete experience, the PfR alliance is actively promoting this approach in international forums like the World Conference on Disaster Risk Reduction, which will review the implementation of the Hyogo Framework for Action and is expected to adopt a post-2015 successor. The concept of *resilience* has become the focus of the risk-reduction community, and the Climate Centre is trying to help it transition successfully to whatever follows Hyogo and the Millennium Development Goals.

The PfR vision

The vision of the Partners for Resilience involves encouraging communities to anticipate the risks they face and address root causes, respond when disaster strikes, adapt to changing risks, and be active partners for governments in implementing DRR. This applies from households and the communities they form up to landscapes. At all levels, policy dialogue is important for a fully enabling environment.

The eight main ways PfR seeks to move beyond "business as usual" are to: work on different timescales to ensure adaptive planning; recognize the broader geographical scales of the known drivers of vulnerability; strengthen institutional resilience; integrate analysis of environmental factors; promote community self-management; combine traditional knowledge with scientific assessments to understand climate trends; focus on livelihoods; and, finally, form partnerships among communities, government agencies and civil society.

PfR country programmes

The PfR in **Ethiopia** have continued to build the resilience of communities to natural disasters and climate change, *implementing agencies report in the first of this year's individual country updates.*[5] Communities are encouraged to take ownership of risk reduction and adaptation plans, and PfR work closely with communities and the national government to develop effective early-warning systems and encourage action plans based on these warnings. Farmers have been supported in adopting early-maturing crops in response to increasing rainfall variability. Activities included building and rehabilitating wells and reservoirs for improved supplies of clean water and restoring degraded land. An ecosystems-based approach to land management has allowed beneficiary communities in pastoralist areas to rehabilitate grazing, and helped farmers improve watershed management by building hillside terraces, trenches and basins, and planting trees in affected areas.

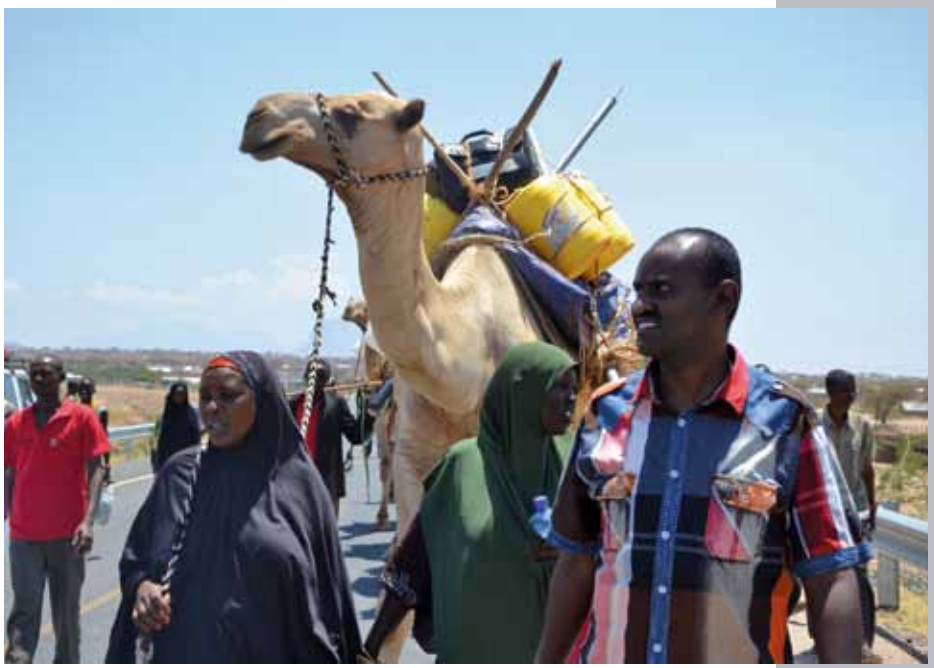
A large part of the territory of **Guatemala** is being degraded by deforestation and changes in land use. In some PfR project areas, water is scarce and bushfires are common – problems that are further aggravated by climate impacts. The Partners have developed a reforestation campaign that includes multi-purpose tree nurseries to bolster water catchment areas. Just over 10,000 trees of indigenous species have been planted to date, re-greening some 70,000 square metres; hundreds of local residents, students and volunteers have been involved in this work, and the newly forested area is being closely monitored to make sure the trees do well.

The **Indian** PfR aim to reduce the impacts of natural hazards on the lives and livelihoods of 184 communities living in two distinctly different areas: the Gandak-Kosi flood plains in Bihar state, where river and flash floods are the main challenge, and in the Mahanadi delta, Odisha state, where river flooding as well as tropical cyclones on the coast are the main threats. During 2013, the focus was on improving community livelihoods and the natural resource base, while engaging with village-level disaster committees to improve their ability to anticipate, respond and adapt to risks. Through local partner organizations and with the support of technical institutions, the PfR promoted sustainable agricultural technologies in nearly 150 villages, reaching out to farmers for the adoption of flood-resistant seed varieties, water-efficient irrigation and grain banks. In addition, Partners facilitated rejuvenation of water-user associations. Two major disasters in 2013 tested preparedness and resilience in PfR villages – new floods in Bihar and Cyclone Phailin, and early evaluations showed community-based measures had a strong impact in reducing their effects.

5 Countries in alphabetical order.

The partners in **Indonesia** have continued their work on sustainable livelihoods. In NTT province a curriculum was developed with farmers in which communities try to identify the environmental impact of local agricultural practices, and what the options for improving sustainability might be. Among these are better methods of dealing with insects and pests, providing plant nutrients from locally sourced organic material, and improving farm productivity in sustainable ways. Participants will test new techniques with a control experiment using traditional ones. The results will be verified after one planting season, then combined with climate information to support longer-term decision-making for agriculture.

The **Kenyan** PfR recognized an urgent need to adopt a landscape approach to address the diverse challenges of ecosystem degradation and climate change along the Ewaso Nyiro river. Together with the Waso River Users Empowerment Platform and IMPACT, a local NGO, the PfR organized a camel caravan (*photo*) and a special donor conference in August 2013, as part of a community-led initiative that brought together Samburu, Turkana, Gabra and Borana pastoralists. It was the first time these communities had met to discuss the underlying causes of their diminishing resource-base. This joint PfR exercise raised awareness, broadened partnerships and sought support from donors, decision-makers and government officials to protect and restore the river.



The Netherlands and Kenya Red Cross, together with the Partners for Resilience Kenya country team and the IFRC, organized a week-long fund-raising camel caravan in August 2013 for the protection and enhancement of the Ewaso Nyiro river. A conference organized by an umbrella association of community-based organizations followed. The campaign was intended to promote better management and use of the river through ecosystem management and restoration. (Photo: Charlotte Floors/NLRC)

PfR work in **Mali** included restoring the grasslands of Gouraou Bozo village and the flood forest of Akkagoum – highly prized by local people because of their socioeconomic and ecological importance. The first activity was implemented by women using a bio-rights approach. This enabled them to earn cash through income-generating activities like fish retailing in exchange for deferred use of regenerated pasture, allowing the conservation of biodiversity such as water birds. People said they believed local resilience had been reinforced through better supplies of drinking water, for example, and the cultivation of vegetable gardens.

The PfR in **Nicaragua**, in partnership with the Central American University in Managua, launched a training course for the two river watershed committees. This allowed the village committees and community leaders to understand the interrelations between (largely climatic) factors such as deforestation, drought, floods, landslides, erosion, fires, pollution, ecosystems and water quality. It included an exchange visit to a watershed committee in another department, and practical sessions on "contour farming" that conserves rainwater and reduces erosion. The initiative was intended to strengthen villagers' capacity and foster collaboration between municipalities sharing an interest protecting river basins.

In the **Philippines**, despite Typhoon Haiyan and its terrible death toll of nearly 7,000 people, as well as many smaller virtually back-to-back disasters, PfR success stories were relatively abundant. Even in communities that experienced unusually heavy rainfall, the early warning, early action approach reportedly worked well. Through the integration of the results gathered from "vulnerability and capacity assessments" (VCA), scenario-based contingency planning helped communities, local government and other partners identify roles and actions to reduce disaster impacts. The PfR also invested a lot of effort in building partnerships with neighbouring areas, especially in urban project sites, and with the Philippine Atmospheric, Geophysical and Astronomical Services Administration. As planning for recovery from Haiyan gathers pace, it's hoped that lessons documented by PfR teams from both the Philippines and Indonesia, now published at book length and available on the Climate Centre website, will serve as models for building more resilient communities in the future.

To deal with the variety of risks and the importance of climate in **Ugandan** project sites, the PfR have selected a diversity of approaches that address the needs of communities holistically. Partners have established "information chains" to pass warnings of high or low rainfall to communities, and developed an early-warning tracking tool that lists actions to reduce the impacts of forecast rainfall. They have supported by-laws to protect wetlands from encroachment and helped communities divert floodwater. This is done in conjunction with livelihood diversification to help people learn new skills like beekeeping that are less vulnerable to rainfall variability. PfR work in regions where, before 2003, people lived in camps run by the government to protect them from conflict involving Lord's Resistance Army rebels. Most have now resettled in the countryside and are engaged in rain-fed agriculture or pastoralism.

1.3 Early warning, early action and 'forecast-based financing'

A cross-cutting element in all Climate Centre work – as a key strategy to cope with a more extreme, uncertain climate – is to assist the mainstreaming of operations based on the *early warning, early action* model into Red Cross Red Crescent disaster management worldwide.

The year 2013 demonstrated the value of traditional early warning when relatively few lives were lost after Cyclone Phailin hit India in October after the successful evacuation of around a million people. But only a month later Typhoon Haiyan struck the Philippines, wreaking massive devasation across the country: in early 2014 the IFRC reported that 16 million people were affected, 1 million homes were damaged or destroyed, and over 5 million people saw their livelihoods ruined. The Philippine Red Cross said hundreds of thousands of people were successfully evacuated before the storm made landfall, but many did not realize that this time, the real risk was the deadly storm surge on the coast.

This, if not the intensity of the storm itself, was already exacerbated by climate change, as the Climate Centre reported at the time. More effective early warning, and use of climate information across timescales, becomes especially critical in the light of such extreme impacts, especially in highly vulnerable areas.

As reconstruction in devastated areas of the Philippines began, Red Cross Red Crescent relief workers consulted the IFRC helpdesk run by the Climate Centre in partnership with IRI. Scientists were then able to provide advice on "building back safer" in the Philippines, taking climate projections for the region into account. Climate Centre staff used this to inform national-level planning dialogues on reconstruction.

In Africa, the Climate Centre is supporting the IFRC in a consortium led by the World Meteorological Organization (WMO) for a Norwegian-funded programme to implement the Global Framework for Climate Services (GFCS) in Tanzania and Malawi. The US$6 million programme, which also involves also the World Health Organization (WHO), the World Food Programme (WFP), and the CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS), aims to foster the provision of climate services, especially application in the field, at scale.

Similarly, PfR country teams are incorporating both scientific and traditional forecasts into their plans for early action, bridging traditional preparedness for response and long-term climate-smart risk reduction. In Uganda, for instance, the Partners have developed an early-warning tracking tool that organizes actions agreed by at-risk communities.

But a truly groundbreaking step forward last year was the start of systematic coupling of climate forecasts across timescales to *financing* of early action via a Climate Centre partnership with the German Red Cross (GRC) for "forecast-based financing" in Togo and Uganda. This recognizes that there are often forecasts available, but may not be any humanitarian organization in a position to act that feels it has a mandate to do so *before* a potential disaster, nor any money to pay for early action – especially when there is not yet full certainty of disaster and thus some risk of "acting in vain".

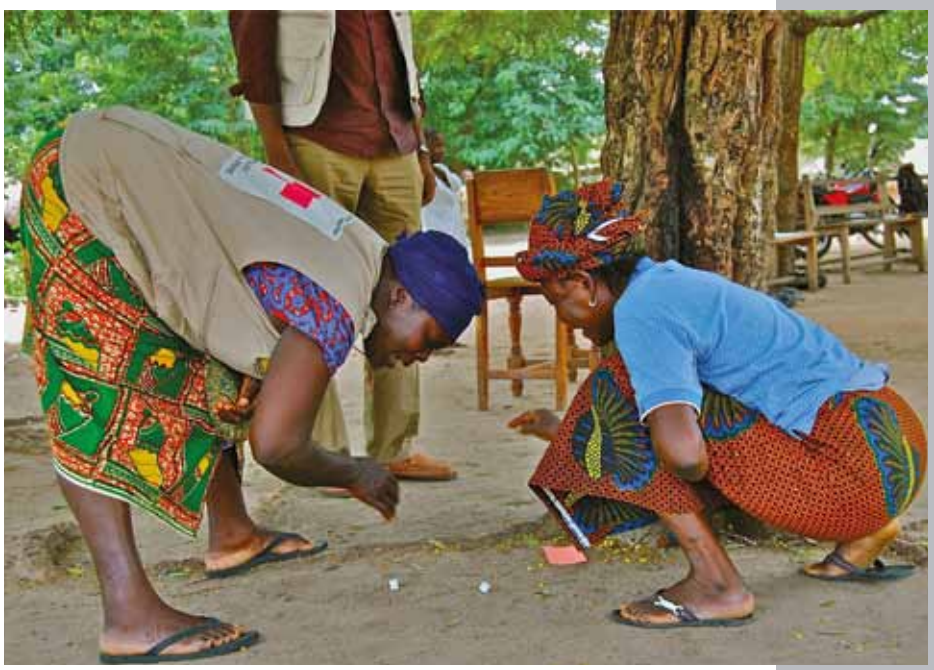
In Togo (*see box*) and Uganda, the Climate Centre is now working with the National Societies to develop standard operating procedures that outline what level of forecast warning merits precisely which actions. The GRC, meanwhile, has secured a flexible preparedness fund for each country that can be drawn on for actions specified under the procedures.

In both countries, the Climate Centre is working with government meteorological services to collaborate on the use of forecasts, and the National Societies involved strengthened their operational partnerships with them. The Red Cross will now use seasonal and short-term forecasts and observed rainfall as alerts for flooding – each with associated actions depending on how much time is available before a potential disaster.

The forecast-based financing concept has gained momentum in other areas. In Zambia, the Climate Centre is working with Zambian Red Cross and the IFRC secretariat to identify possible actions based on forecast warnings. These analyses will also feed into the World Bank's pilot programme for climate resilience in Zambia, which has created a unique window that could release funding for the local level in response to scientific warnings. This research, in partnership with Norway's Department of International Environment and Development Studies, now extended with a new programme supported by the US Agency for International Development (USAID), began at the end of the year in collaboration with the University of South Carolina.

In 2013, Erin Coughlan started a PhD in this overall field, supervised by Climate Centre Director Maarten van Aalst and Professor Bart van den Hurk of the Royal Netherlands Meteorological Office and Free University of Amsterdam. The Centre presented on this concept at seminars including the 2013 International Conference on Regional Climate (CORDEX)

In the Caribbean, meanwhile, the Climate Centre is partnering with IRI and the Caribbean Institute for Meteorology and Hydrology to develop procedures for seasonal forecasts in the region. The Centre designed a game that was played at the Third International Conference on Climate Services in Jamaica, in which the participants match forecasts with actions based on the likelihood of disaster. Procedures for actions based on forecast warnings will be trialled in 2014.



Ready! for forecast-based financing in Togo. The Togolese Red Cross is ready to take advantage of a groundbreaking effort linking early warning to early financing, often a bottleneck in enabling humanitarian action ahead of disasters. The initiative is part of a project for the Togo and Uganda Red Cross and funded by the German Federal Ministry for Economic Cooperation and Development through the German Red Cross, with technical assistance from the Climate Centre. At the community level, the Red Cross is using Climate Centre educational games like *Memory strings*, *Ready!* (pictured) and *Paying for predictions* to explain the project and gather information about past disasters. (Photo: Janot Mendler de Suarez/Climate Centre)

Forecast-based financing: *The case of Togo*

Many early warning systems exist worldwide that can provide an indication of temporarily increased likelihood of disaster days, weeks or even months ahead of time, such as, respectively, forecast storm tracks, rainfall predictions, and seasonal forecasts. These early warnings provide a critical window after a forecast is issued but before the potential disaster in which we can still take action to reduce the risk of disaster effects. This can have enormous benefits for the exposed population. Action based on a seasonal forecast ahead of the West African monsoon season in 2008, for example, allowed the Red Cross to reach beneficiaries weeks earlier than the emergency the previous year and cost 33 per cent less (Braman et al., 2013).

However, in most humanitarian organizations there are no funding mechanisms that allow us to take action in this crucial window. Response funding is only available after a disaster strikes, or when it is virtually certain to happen hours or days ahead. Long-term disaster risk reduction funding, on the other hand, is typically only available for long-term programme support, addressing baseline levels of risk without the flexibility to prepare for higher levels of risk indicated by a specific forecast.

In a forecast-based financing system, Red Cross Red Crescent teams make plans for forecast-based activities to be carried out when a warning is issued. This will vary depending on the warning: if there is a very high chance of disaster, the teams will select more extensive actions, but if the chance of disaster is only slightly elevated, they will select less risky actions. In all cases, teams know there is a possibility of "acting in vain" because at longer lead times (with more time to act) forecasts indicate heightened risk rather than predict the future perfectly.

Actions are then encoded in standard operating procedures, specifying exactly what should be done when a specific alert is issued, and who is responsible. Each action will have an associated cost, and funding will be provided from a dedicated fund. This mechanism is analogous to post-disaster funding, but the money is disbursed when a forecast trigger is reached rather than after a disaster has happened. With all of this in place, the disaster managers will be able to systematically take action every time an early warning alert is issued.

By using climate information across timescales, these actions explicitly build on scientific information about changing risks, implicitly reflecting the already-changed global climate without relying solely on long-term climate projections.

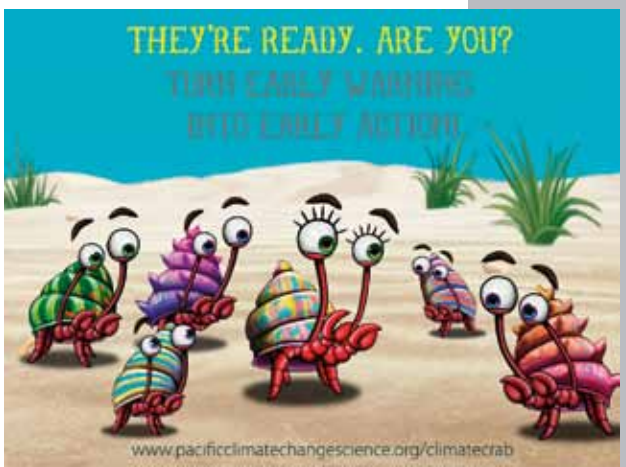
The Togolese Red Cross has been working to reduce the risk of flooding disasters along the Mono River, which runs from north to south and eventually forms a border with Benin. Occasionally, due to heavy rainfall, the river will overflow its banks and cause a severe disaster in the nearby areas. In 2000, more than 30,000 people were reported to have been affected by such flooding.

Now, with the use of science-based early warning information, we can anticipate many of these disasters and act preventatively before the floods happen. In the last few years, the Togolese Red Cross has established monitoring schemes in which upstream communities monitor river levels by watching how high the river rises on a coloured pole. Once it rises to a dangerous level, they alert the Red Cross which then passes the messages to downstream communities. These communities now have enough time to prepare for the floodwaters rushing towards them, and can move important belongings out of the way.

The forecast-based financing system that is currently being established in Togo will function in a similar way. Instead of monitoring river levels, we will also monitor rainfall forecasts, to have even more time to act between when the rain is forecast and when the flood happens. The Red Cross will use these forecasts to trigger preventative action, and reduce the risk of disaster.

In the Pacific, early warning, early action is being facilited by innovative communications work, including two animations integrating climate and disaster preparedness. A new film, *Cloud Nasara,* is available for download, along with a range of educational materials in Bislama – one of the languages of Vanuatu – and English and French. The film centres on the impacts of El Niño and La Niña on Vanuatu and encourages people to take early action to prepare.

This followed *The Pacific Adventures of the Climate Crab* animation that focused on regional issues, which premiered at the Pacific Meteorological Council in Fiji in July. These projects were implemented by the Red Cross regionwide, the Climate Centre and other partners, including key regional science agencies such as the Australian Bureau of Meteorology and Commonwealth Scientific and Industrial Research Organisation.



An animated film that integrates climate science and disaster preparedness encourages Pacific islanders to take early action in preparing for extreme-weather events and stars a comic but highly resilient crab. (Image from *The Pacific Adventures of the Climate Crab*)

1.4 Minimum standards for climate-smart risk reduction 2.0

Since the first version of the "minimum standards for local climate-smart risk reduction" was launched in November 2012, they have been tested in practical programme planning within the PfR network in Africa, Asia and Central America, as well as at the PfR global work conference in The Hague in September 2013, and in dialogues with a wide range of other practitioners and policy-makers. This global consultation process formed the basis for a major revision: the "2.0" standards are shorter, clearer and include concrete steps to help communities and civil society get started on meeting them.

These updated standards were launched at the COP 19 UN climate talks in Warsaw and are available in English and Spanish. They have been used in all the PfR countries and, for example, by the Philippine authorities in the Metro Manila area for their local risk reduction plans. The Minimum Standards are intended to be a living document that will be honed and polished by programme experience.

In the Caribbean, the Climate Centre is supporting IRI in working with universities and forecasting institutions to bring climate services to island nations. The Climate Centre contribution has focused on the Minimum Standards for civil society organizations, developing worksheets and games, and working more closely with local forecasting agencies.

While a large amount of literature has been produced by development organizations on integrating climate change and gender, the Australian Red Cross realized there was no guidance tailored specifically for the Red Cross Red Crescent context. Recognizing that vulnerability to climate change was socially differentiated and that Red Cross Red Crescent DRR programmes that addressed gender dimensions *and* climate change would respond better to men's and women's needs, the Australian Red Cross expanded the Minimum Standards to include examples of climate-smart *and* gender-sensitive approaches to DRR at the level of communities and civil society organizations (CSO).

For CSOs to be well prepared to support communities to become climate-smart, their own internal capacities should be able to take into account changing climate-related risks. To this end, the Minimum Standards offer CSOs a metric to monitor progress towards strengthening their technical capacities. The Vanuatu Red Cross, with support from the French Red Cross and the Climate Centre, has applied the Minimum Standards and undertaken key activities towards realizing each standard.

The Philippines Red Cross has also used the Minimum Standards as a guide in the ongoing development of their organizational climate change adaptation policy as well as in the development of their recovery plan for Typhoon Haiyan.

In Nepal the Red Cross is being assisted by partner National Societies to use the Minimum Standards as a tool to revise ongoing disaster management and risk reduction.

The Minimum Standards can also be used to shape proposals and work plans for projects with a strong climate change or DRR component. An example is the Norwegian-funded GFCS adaptation programme in Africa, where the Climate Centre is supporting the IFRC and helping to contextualize the Minimum Standards for each country.

1.5 Participatory games

The Climate Centre continues to design and faciliate *participatory games* – now a cross-cutting feature of many of the initiatives listed above – to translate climate-related information for use at the local level and help a range of different actors understand each other's needs and perspectives as they relate to climate risk management.

Since 2009, games have been an efficient and fun way to engage practitioners and policy-makers in serious dialogue. The key objective is to enhance awareness of changing risks and facilitate effective linking of information to *action*. Through these tools, the Climate Centre is not only facilitating better Red Cross Red Crescent policy and practice but also contributing to more effective climate risk management.

During 2013, the Centre built on its track record of designing and facilitating games for an array of partners, in some cases reinvigorating existing partnerships and elsewhere pioneering the use of games for new partners interested in bold and innovative methods for conveying messages on climate risk in projects, programmes and policies.

A sample of new games partnerships established and nurtured in 2013 include:

- *ACE Africa-Oxford University.* The Climate Centre co-designed *CAULDRON*, which stands for "Climate attribution under loss and damage: risking, observing, negotiating," aimed at encouraging discussion of the science of attributing extreme-weather events and its bearing on policy-making – especially in UNFCCC "loss and damage" negotiations.
- *Africa Climate Change Resilience Alliance.* Building on experience from 2012, the Climate Centre refined the *ACCRA game* to encourage district-level decision-makers to make flexible and forward-looking decisions in response to real-world climate scenarios. The Centre trained over 60 representatives of partner organizations and government in Ethiopia and Mozambique to facilitate the game, which was then used in a research workshops in both countries. In addition, the Centre organized a game session with young Mozambicans to help them reflect on the implications of climate change for their future and their country's.

- *American Red Cross.* The Climate Centre is redeveloping at least five existing games and designing several new ones to be facilitated in communities by Red Cross Red Crescent volunteers and staff. Game topics include gender and climate, preventing dengue fever, road safety, and the management of urban waste.
- *German, Togolese and Ugandan Red Cross.* We substantially adapted our flagship game *Paying for predictions* to capture the role of donors in forecast-based financing as key to communicating this complex concept with relevant practitioners and policy-makers.
- *Climate Services Partnership.* In collaboration with the University of Cape Town, the Climate Centre designed a game on the ethics of communicating complex scientific information to users who are not scientists.
  This game was played at the Third International Conference for Climate Services.
- *Development and Climate Days.* Ten games about climate risk management were played over the course of Development and Climate Days ("D&C Days") – a two-day IFRC-Climate Centre side-event at the annual UN climate talks (*see Section 3*).
- *USAID.* As a result of the *CAULDRON* game, played at D&C Days at COP 19, the Climate Centre is exploring opportunities with the International Institute for Environment and Development (IIED) and USAID for promoting innovative approaches like games to prepare climate negotiators for dialogue on complex issues.
- *World Bank, Chief Economist for Sustainable Development.* The Climate Centre designed a game to convey deep uncertainty, played by senior government and World Bank officials in the Asia-Pacific region, Latin America and Washington, DC. Called *Decisions for the decade,* this game is being refined for engaging other World Bank staff.
- *Zambian Red Cross.* With the support of the Norwegian Research Council and the Engagement Game Lab, a game prototype was designed to support flood warnings along the Zambezi river. In *Upriver,* farmers use text messages to collect information about river levels and make predictions about flood risk based on observed conditions upstream. A non-digital version conveys key concepts on flood predictability.

2. Mobilizing resources – human and financial

A key role for the Climate Centre is to help the Red Cross Red Crescent attract new resources to address rising climate risks. This has two components. One is about financial resources, in particular connecting National Societies and the IFRC to the changing financing landscape related to international climate negotiations, and increasingly by establishing the right policy linkages at the national level to help National Societies position themselves as partners in the implementation of climate risk management focused on the most vulnerable groups.

The other is about human resources: connecting the Movement to rapidly expanding climate knowledge and attracting people with the right skills.

2.1 Financial resources

The Climate Centre has been helping National Societies tap into dialogues with government on adaptation planning and funding. In developing countries, this includes establishing the National Society as a trustworthy implementing partner to deliver on international commitments on adaptation. For instance, the Kenya Red Cross, a PfR partner, has successfully accessed multilateral climate finance through the Kenyan government.

Another example is the Zambia Red Cross, where the Climate Centre is supporting the National Society and the IFRC in establishing links to a new World Bank project supported by the *Pilot Program for Climate Resilience* – a US$1.3 billion climate finance facility. These efforts are partly supported with climate-related research funding from the Norwegian Research Council and USAID.

In the case of National Societies in donor countries, the Climate Centre has supported dialogues with various donor agencies about the use of climate finance, and resource mobilization from such funds. Two examples include PfR and the DRR programmes in Togo and Uganda supported by the German Red Cross. Key questions relate to the way climate finance can be used to build on existing capacities by actors in the Red Cross Red Crescent, for example, with a special focus on most vulnerable groups at risk from extreme events.

Mobilizing financial resources generally requires a combination of operational credibility and sustained policy dialogue at the international and national level; there is a clear overlap with the diplomacy dialogues described in Section 3 below.

In 2013, the Centre has also successfully attraced new external resources for some of its own programmes, which help raise the profile of the Movement in international climate finance. Examples include support from the World Bank for game development around their flagship *World Development Report,*[6] a new collaboration with the International Fund for Agricultural Development to support the inception workshops of their US$300 million "Adaptation for Smallholder Agriculture" programme, and continued collaboration with the Japan International Cooperation Agency (JICA) for D&C Days – complemented by funding from the Global Environment Facility (GEF) and IIED. (For further details on the Climate Centre's own finances, see Section 7.)

2.2 Human resources

Thanks to the many collaborations with academic and other partners, the Climate Centre has been able to attract young scholars with a winning blend of analytical competence, motivation and integrity. Their work helps inform decision-making processes and the development of new tools and programming in the years to come, but also attracts human resources.

After five years of our programme for young scholars interested in humanitarian work and well over a 100 alumni later, former students have gone on to work in National Societies like the American and Austrian Red Cross, UN agencies like the World Food Programme, academic partners like Columbia University and the University of Colorado-Boulder, international agencies like CCAFS and CDKN, and the World Bank and the UK Department for International Development (DFID).

In 2013, at least ten were recruited on a temporary basis to support ongoing initiatives and are likely to continue to work with the Red Cross Red Crescent and other humanitarian organizations. (A snapshot of the work of junior researchers is presented in the box below.)

6 Full title: W*orld Development Report 2014: Risk and Opportunity – Managing Risk for Development.*

These collaborations are only possible through long-standing academic partnerships. The Climate Centre currently has arrangements with Boston University, Brandeis University, Columbia University, Harvard University, King's College (London), Makerere University, the Massachusetts Institute of Technology (MIT), New York University, Parsons School of Design, University of Cambridge, University of Cape Town, University College London, University of Colorado at Boulder, University of Iceland, University of Manchester, University of Maryland, University of Miami, University of Oxford, the Institute of Development Studies at the University of Sussex, University of the Witswatersrand (Johannesburg), Wageningen University, and Yale.

In addition, through numerous projects led by National Societies, the Climate Centre has facilitated games or trained local facilitators who have subsequently engaged with local university students, including Zomba College in Malawi and Bahir Dar University in Ethiopia. We are also nurturing an ongoing collaboration with the University of Nairobi.

In addition, the Centre has also invested in the youth networks of the Movement – at the Mediterranean Red Cross Red Crescent Atlantis IX camp for young people in Bosnia-Herzegovina in July, for example, where games were played and materials promoted to help young people respond to climate risk in their home countries.

Sample of 2013 Climate Centre graduate student researchers

Chris Collins analysed forecast information in Indonesian PfR areas and identified advocacy opportunities for PfR networks to encourage its dissemination in simpler formats. He also worked with project communities to identify forecast-based actions, and analysed the capacity and needs of PfR on adaptation, early warning and mosquito-borne disease.

Joy Larson worked with an early-action matrix developed by a Cordaid partner in Uganda that allows communities to discuss actions they might take given a certain scientific or traditional forecast. She met all PfR partners and visited project sites to discuss the new tool and ran a training session. By the end of her internship, everyone had the tool and was ready to use it. Following the positive experience of PfR Uganda with this tool, it is being trialled in Mali and other PfR countries in 2014.

Becky Murphy in the Philippines identified locally available climate information and developed recommendations for innovative methods of communicating it to PfR communities. She also analysed the capacity of PfR communities to become climate-smart based on the Minimum Standards, and produced a report mapping the strengths and weaknesses of PfR organizations.

Amy Quandt carried out a livelihoods survey for PfR programmes in seven communities in Kenya. Her survey focused on climate-smart, ecosystem-friendly livelihoods options that could be implemented and encouraged in PfR project areas.

Zoe Sprigings documented Ethiopian PfR achievements, especially at an Ethiopian Red Cross project site in Goro Gutu. She produced a document that the Red Cross printed and distributed for awareness-raising. Her dissertation focuses on the policy landscape in Ethiopia as it relates to climate change; she prepared a separate report for the PfR country team which was used in the planning of advocacy work in 2014.

Arielle Tozier de Poterie conducted a VCA for four project districts of the Ugandan Red Cross. As part of the process, she trained teams of Red Cross volunteers to conduct the research in 16 villages, and produced a report that will be central to harmonizing local needs with forthcoming project activities.

Kanmini Venkateswaran analysed flood preparedness and response strategies in four communities in Zambia as part of the Zambezi River Basin Initiative. She conducted vulnerability and capacity assessments in the four communities and produced a report including recommendations for improved flood risk management and early warning approaches in the project area.

3. Humanitarian diplomacy

Our humanitarian diplomacy agenda, closely aligned with the IFRC's, continues to focus on ensuring that the voices of the most vulnerable are firmly embedded in wider policies for disaster risk reduction and climate change adaptation (CCA) at national and global levels.

Building on efforts by National Societies, the IFRC secretariat and an increasing number of long-term external partners, including academia, think tanks and implementing agencies, the Climate Centre has made significant progress in integrating DRR and CCA into humanitarian decision-making and longer-term development policy and planning. From its role in PfR, the Centre has also been able to help promote lessons learned for building resilience in an increasingly uncertain climate.

The core of our humanitarian diplomacy agenda is threefold:

- In climate policy and finance, consideration must be given to disasters and extreme-weather events.
- Climate adaptation should focus especially on the most vulnerable groups.
- Adaptation should go beyond national planning, and especially prioritize strengthening local capacities.

The Climate Centre nurtures a global network of diverse partnerships, operating across different scales of governance from village to global, focusing on interfaces between science, policy and practice. This means identifying and helping partners use climate information and lessons learned from practice to inform key decision-making processes.

Climate centre Director Maarten van Aalst and IPCC Working Group II co-chair Chris Field at CORDEX, 2013. (Photo: Antoine Soto/ European Commission)

3.1 Internal policy development

In close collaboration with the CPRR department of the IFRC secretariat, the Climate Centre has continued to contribute to IFRC policy processes related to climate change. In 2013, this included a new resilience framework (being approved in 2014) and an "action plan on climate change 2013–16", and guidance for National Societies on how to engage in National Adaptation Plans (NAPs) and mainstreaming DRR and CCA.

All this reflects collective experience and features prominently in our training materials and support to National Societies. A joint planning session between the Climate Centre and the CPRR department has further strengthened effective use of shared capacity to support the work on climate change in the Movement.

The Climate Centre also supported National Societies in their policy development on climate change and attended the Statutory Meetings in Sydney, Australia, where the resilience framework was discussed with the leadership of all National Societies, reflecting a strong interest in the climate dimension.

The Statutory Meetings also reflected on follow-up to the Millennium Development Goals. The Climate Centre has supported the IFRC New York office in developing the IFRC position in this process, with specific attention to climate and resilience.

3.2 IPCC and the Fifth Assessment Report (AR5)

The Intergovernmental Panel on Climate Change (IPCC) provides the best knowledge on climate change, compiled by thousands of the world's best scientists, with summaries approved by all governments. It provides the most authoritative overview of cutting-edge climate knowledge and is the undisputed basis for international negotiations on climate change and many national climate policies, especially in developing countries.

Over the years, the Climate Centre has been contributing strongly to the work of the IPCC, and to the interface between the IPCC's findings and Red Cross Red Crescent work on policy and practice. Maarten van Aalst was Coordinating Lead Author of the 2012 Special Report on Extremes (SREX), and throughout 2013 the Centre has continued to present and interpret those findings across the Movement and its partners, with many presentations around the world. He was also Lead Author of the IPCC Fifth Assessment Report (AR5), the compilation of all knowledge on climate change. Compared to its predecessor, AR5 focuses much more on *risk*, including current and near-term challenges, rather than just scenarios for 2100.

The first instalment of the Fifth Assessment Report was released in September 2013, when Working Group I (WG I) published its findings on the science of climate change (*see box*).

The IFRC secretariat and Climate Centre published a joint news story on 27 September 2013 on their websites, containing comments from Walter Cotte and Dr Van Aalst and including a selection of WG I's key scientific points as bullets. The Centre also prepared for the Red Cross Red Crescent audience a special web page and summary, with a simple interpretation of the IPCC's key findings.

The most important report for the Red Cross Red Crescent, the Working Group II report on impacts and adaptation (which Maarten van Aalst is also contributing to), was released in March 2014 in Yokohama, Japan. A third report, on mitigation, followed in April 2014, being followed by a Synthesis Report later in the year.

The Climate Centre is also collaborating with CDKN to produce simple regional summaries with key IPCC information, following a similar and very well-received set of products released after the 2012 SREX report.

IPCC Working Group I: science FAQ (climatecentre.org/AR5)

Q: Is climate change already happening?

A: Yes, climate change is already happening in the world today. Since 1950, changes to the Earth's climate have included: warming of the atmosphere and oceans, reduced snow and ice, a rise in the level of the oceans, and changes in some climate extremes. Many of these observed changes are unusual or unprecedented in the last decades to millennia.

Global temperature has increased by almost 0.85 °C since 1880. Since then, almost the entire globe has experienced surface warming. For instance, the last three decades have successively been warmer than all earlier decades since 1850. There are *very likely* (see below on the precise meaning of this formal IPCC language) to be fewer cold days and nights and more warm days and nights on the global scale.

Particularly relevant to the Red Cross Red Crescent, it is *likely* that the frequency of heatwaves has increased in large parts of Europe, Asia and Australia, and the number of heavy precipitation events has increased in more regions (like North America and Europe) than where it has decreased.

Sea levels have been rising in the last 100 years: it is *likely* that the rate of sea-level rise has increased over the last century. There is *high confidence* that the rate of global mean sea level rise since the mid-19th century is the highest it has ever been in the context of the last two millennia. The increasing CO_2 concentration is also causing the ocean to become more acidic, which threatens marine ecosystems, coral reefs and fisheries for instance, with severe implications for coastal communities.

Q: But isn't it true that in the past 15 years, the warming has slowed down? Are we really sure that climate change will continue?

A: Climate change has caused a clear warming trend over the last 100 years, but there are many short-term ups and downs, due to volcanic eruptions, for example, or changes in the intensity of the radiation coming from the sun and other natural variations.

Although the climate is warming in the long term, that doesn't mean that every year will be hotter than the previous one. We expect to see ups and downs in temperatures from year to year as the overall temperatures continue to rise. These short-term ups and downs due to El Niño and other natural variations can cause specific decades to have stronger or weaker warming trends, and in general some decades might not reflect long-term climate trends. For example, in the past 15 years, temperatures rose less quickly than in previous years (since 1951). Nevertheless, the last decade (2001–10) is the warmest on the record, and again the long-term trend since 1901 shows clear warming over time.

Q: Why is global warming happening? Are we to blame?

A: Human influence has caused these changes. It is *extremely likely* that human influence has been the dominant cause of the observed warming since the mid-20th century. (In the language of IPCC reports, "extremely likely" has a precise meaning of at least 95 per cent probability.) This confidence in human responsibility was "very likely" (at least 90 per cent probable) in the AR4 in 2007, "likely" (66 per cent) in 2001, and just over 50 per cent in the 1995. There is *high confidence* that human influence has already warmed the ocean, melted snow and ice, raised sea levels, and changed some climate extremes.

The reason is the increasing amount of greenhouse gases (GHG) in the atmosphere, which act as a blanket over the earth and result in rising temperatures. The concentration of the main greenhouse gas released by human activity, CO_2, has increased by about 40 per cent since 1750. The increase is a result of human activity, primarily due to burning of fossil fuels (such as coal, oil and gas) and secondarily from changes to land use, such as deforestation.

The current amount of the main anthropogenic GHG in the atmosphere is substantially higher than ever before in the past 800,000 years (as measured from ancient air bubbles that have been trapped in ice for millennia). There is *very high confidence* that GHG rose faster during the past century than ever before in the last 22,000 years.

Q: What will the future look like?

A: In the future, we expect large changes in global, regional and local climate, particularly for temperature, precipitation and sea level. Global average surface temperature is *likely* to be between 0.3 °C and 0.7 °C higher in the period 2016–35 compared to the period 1986–2005, according to the latest scientifically generated scenarios of future human influence. Towards the end of the century, the probable temperature rise depends more strongly on the way GHG emissions evolve over the century, with an expected increase of 2.6°–4.8°C for the most pessimistic scenario.

It is *virtually certain t*hat, in most places, there will be more hot extremes and fewer cold extremes. It is *very likely* that heatwaves will occur more often and last longer.

Many places will see changes to rain or snow, and also changes to heavy rainfall or drought. It is not clear exactly how each region will change in the future, but some patterns are projected. By the end of the century, more rain and snow on average is *likely* in mid-latitude wet regions, in high latitudes, and in the equatorial Pacific Ocean. Less rain is *likely* in many mid-latitude and subtropical dry regions. Most land in mid-latitudes and wet tropical regions are *very likely* to see more intense and frequent extreme rainfall events.

Global average sea level will rise during the 21st century and this is *very likely* to be faster than the rise already observed. Towards the end of the century, sea levels will depend on how emissions evolve, with the most pessimistic scenario *likely* to lead to a range of possible increase of 0.52–0.98 metres.

Q: Can this be prevented?

A: Changes in the next few decades cannot be prevented, but much more drastic climate changes at the end of this century can be prevented by action today. The main way to reduce climate change is to limit GHG emissions.

However, many GHGs remain in the atmosphere for a long time (decades or even centuries). Therefore, even rapid reductions in emissions will not make a big difference to ongoing climate change in the next few decades, which is mainly determined by what has already been emitted up to now. We have no choice but to adapt to the changes and deal with the impacts.

The choices we make now regarding emissions matter a lot for the climate we will see in the second half of the 21st century; without rapid action, major climate change in 2050–2100 may be unavoidable. Continued emissions of GHG will cause further warming and changes in all components of the climate system. Most aspects of climate change will persist for many centuries, even if emissions of CO_2 are stopped.

3.3 Shaping the external policy environment

The Climate Centre has continued to be an important humanitarian voice in international discussions about managing climate risk, building on its unique comparative advantages at the interface between science, policy and practice. In some cases, this was in a formal role representing the IFRC in meetings such as COP 19; in others it was in the Centre's expert role, shaping international thinking in workshops or dialogues between country delegations and National Societies, or providing interactive platforms that facilitate discussions about climate risk.

Examples include a session jointly organized together with the Red Cross EU office in Brussels at European Development Days; and game sessions organized with the Chief Economist for Sustainable Development at the World Bank for the launch of the *World Development Report.*

Many events also focused on further development of climate services after the adoption of the Global Framework on Climate Services last year. This included, for instance, the 2013 International Conference on Climate Services in Jamaica, where we focused especially on ethics – how to ensure science reaches the most vulnerable and that scientists take account of the limits of their information, and the risk of over-interpretation.

The Climate Centre also reviewed or contributed to key initiatives by other multilateral organizations, such as the World Bank's report, *Turn Down the Heat: Climate Extremes, Regional Impacts, and the Case for Resilience,* on what a 4-degree warmer world would be like, and another on climate risk management presented at COP19.

3.4 COP 19 and Development and Climate Days

In close collaboration with the IFRC secretariat, the Climate Centre continues to closely follow the United Nations Framework Convention on Climate Change (UNFCC) negotiations and related processes in climate-funding mechanisms and bilateral donor agencies. In general, we see a greater need to focus on policy and finance at the *national* level, at which achievements at the international level – such as recognition of the important role of DRR in climate change adaptation – now need to be implemented in practice and financing needs to reach the most vulnerable.

However, these national dialogues and discussions centred on financial mechanisms and with multilateral agencies require solid understanding of the international policy landscape. In addition, new developments such as the emerging discussions on loss and damage could have big implications for international funding flows and require careful monitoring.

As part of the IFRC delegation to the COP 19 in Warsaw, the Climate Centre supported the Movement's voice in these important negotiations. A particular highlight of our engagement was again the popular D&C Days, in the middle weekend of the COP meeting. Over 250 people took part, including policy-makers, scientists, development practitioners and development ministry officials, as well as students, researchers, and communications professionals from many nations; Mary Robinson, the former president of Ireland, led one of the interactive discussions.

D&C Days are intended to provide a platform for truly interactive dialogue among a diverse set of stakeholders on key issues relating to climate risk management, an element often missing from the UNFCCC negotiations but essential for progress in the interface between policy, practice and science.

For the second year in a row, the Climate Centre led the organization and facilitation of this event in collaboration with IIED, GEF and JICA. The feedback was positive, with participants saying they were impressed by the Centre's focus on innovation, peer-to-peer learning, participatory activities and networking.

The two-day programme included: structured topic-debates; an expert panel on climate justice; participatory games for learning and dialogue on early-warning systems, the value of forecasts, loss and damage, and other topics; participatory game-design; several presentations on adaptation experience from the field; a panel on adaptation finance at the local level; and a session that linked music with aspects of decision-making in development and climate.

The *CAULDRON* game made its debut in Warsaw. Players become climate negotiators and discuss the loss and damage experienced in their countries due to the changing climate. Its intensely interactive nature triggered rich discussions and insights about the role of science in the UN climate talks, and evaluation by participants showed it was one of the most popular and valued session in the two-day D&C Days programme.

The International Institute for Sustainable Development produced D&C Days Bulletin – a special edition of the Environmental Negotiation Bulletin, and CDKN carried blogs on its website that were also carried on the Climate Centre's home page. Climate Centre interns Beatriz Zavariz and Verner Wilson – Yale students who were in Warsaw – blogged on their own experiences of using games for learning.

On Twitter, the D&C Days hashtag was used extensively. The event was covered by the Climate Centre's own news service, and the news and analysis website *Responding to Climate Change* carried a video interview with Pablo Suarez, the Climate Centre's Associate Director for Research and Innovation.

Climate Centre Senior Policy Officer Carina Bachofen speaking at D&C Days at the 2013 UN climate talks in Warsaw. (Photo: Mariusz Patalan/Climate Centre)

4. Research, analysis and teaching

A key role for the Climate Centre in the Red Cross Red Crescent Movement is to foster evidence-based knowledge that informs our actions on the ground and provides the evidence base for good policy and decisions on finance. This includes a new series of working papers as well as publications in peer-reviewed scientific literature.

As part of our efforts to share lessons learned, but also to foster a new generation of scientists and practitioners working at the interface of science and practice, the Climate Centre is also investing in tertiary eduction.

4.1 Operational case studies, working papers, publications in scientific journals

Major case studies published in 2013 included one on the project for health-risk management in a changing climate that explored ways of integrating climate with health programming in Indonesia, Kenya, Tanzania and Vietnam. Another on a participatory climate project funded by the Australian government, supporting increased community resilience to climate variability and change in Vanuatu; and *Putting Community Resilience into Practice* by Carina Bachofen, Fleur Monasso and Hannah Tankard.

The Climate Centre has also been raising production standards of its reporting to donors so as to be able to use essentially technical reports as communications products that can inform wider policy and practice conversations, like the final report on the CDKN innovation grant for games, *Using games to experience climate risk, Empowering Africa's decision-makers.* This recently went into a second (abridged) edition for external use at COP 19 in Warsaw, and it was first posted online to coincide with the UN climate talks.

Climate Centre working papers enable rapid publication of analytical work that is more formal than a simple case study but at the same time more accessible (and more quickly available) than one prepared for an academic journal.

The first of these to be released last year was *Can games help people manage the climate risks they face? The participatory design of educational games,* by Carina Bachofen, Pablo Suarez, Margot Steenbergen and Natasha Grist, examining how engaging humanitarian and development professionals in participatory game-design generates "insights and interactions for better climate-risk management". This paper was also translated into Spanish.

Beyond the Film, Innovations in the participatory use of film at international conferences on climate, the second, by Rebeka Ryvola and Pablo Suarez, examines the role of film in evaluating communications between stakeholders. It argues for "diversity in problem-solving" as climate change unfolds around the world.

Thirdly and most recently, *Ready! Lessons in the design of humanitarian games,* by Colleen Macklin, Director of the PETLab at Parsons The New School for Design, is the product of Games for a New Climate – an initiative by PETLab and Red Cross Red Crescent Movement partners designing games to assess local vulnerability and scope for DRR work.

In addition to its own publications, the Climate Centre also aims to document its analysis in the peer-reviewed scientific literature. This helps establish the credibility of our policy messages, sharpens our analysis of best practice, influences wider scientific research that can benefit our practice and policy work, and eventually also finds its way into influential assessments such as the IPCC's.

Peer-reviewed articles in 2013 included:

- Braman, L., Van Aalst, M., Suarez, P., Mason, S., Tall, A. and Ait-Chellouche, Y. 'Climate forecasts in disaster management: Red Cross flood operations in West Africa, 2008' in *Disasters* 37 (1): 144-164.
- Green, J. L., de Weck, O.L. and Suarez, P. 'Evaluating the Economic Sustainability of Sanitation Logistics in Senegal' in *Journal of Humanitarian Logistics and Supply Chain Management* 3 (1): 7-21.
- Jones, L., Ludi, E., Beautement, P., Broenner, C. and Bachofen, C. *New Approaches to Promoting Flexible and Forward Looking Decision Making: insights from complexity science, climate change adaptation and 'serious gaming'.* Overseas Development Institute, 2013.
- Juhola, S., Driscoll, P., Mendler de Suarez, J. and Suarez, P. 'Social strategy games in communicating trade-offs between mitigation and adaptation in cities' in *Urban Climate* 4:102-116.
- Suarez, P., Bachofen, C., Van Aalst, M., Huq, S., Dupar, M. and Juichiro , S. 'Development & Climate Days at COP 18: Meeting Report' in *Climate and Development* 5 (2): 182-185.
- Suarez, P., Banerjee, B. and Mendler de Suarez, J. 'Geoengineering and the Humanitarian Challenge: What Role for the Most Vulnerable?' in *Geoengineering Our Climate, Working Paper and Opinion Article Series,* 2013.

Scientific reports presented at conferences included:

- Coughlan de Perez, E. 'Early Warning Early Action: Enabling better disaster risk management with actionable climate information', presentation at International Conference on Regional Climate 2013.
- Coughlan de Perez, E. 'Ethics of Climate Services,' presentation at International Conference on Climate Services. Montego Bay, Jamaica, 2013.
- Coughlan de Perez, E. and Butler, K. 'Adapting to Variability Before Change: An analysis of pre-existing adaptation strategies for climate variability through a socio-ecological resilience framework: The Republic of the Marshall Islands', presentation for Initiative on Climate Adaptation Research and Understanding in the Social Sciences, University of Michigan.

Maarten van Aalst also contributed a background paper, written together with Jan Kellett and Tom Mitchell of the UK Overseas Development Institute (ODI) – *Incentives in Disaster Risk Management and Humanitarian Response,* for the (World Bank's) *World Development Report.*

4.2 Teaching and academic collaboration

Beyond the internship programmes mentioned in Section 2, the Climate Centre is investing in academic collaborations to foster research and build academic capacity for climate risk management.

Erin Coughlan, the Centre's Senior Climate Specialist, based in New York, is undertaking research for a doctoral degree at the Vrije Universiteit Amsterdam, and is directly contributing to the work on forecast-based financing in Africa. In 2013 she carried out an analysis of rainfall hydrology and disaster in Uganda, demonstrating probabilities in a forecast-based financing system. She also taught a master's seminar in Climate and Society at Columbia University, New York City.

Dr Van Aalst taught a module on climate and disasters at the Ecole Polytechnique Federale de Lausanne in Switzerland. Dr Suarez taught a master's course on innovations in climate risk management at the Universita della Svizzera italiana. Dr Van Aalst and Dr Suarez were both invited to become honorary senior lecturers in the Department of Science, Technology, Engineering and Public Policy at University College London. Dr Van Aalst continued his adjoint position at the International Research Institute for Climate and Society at Columbia University.

Climate Centre staff also gave lectures on climate risk management and participatory game sessions during graduate courses at Harvard School of Public Health, the Humanitarian Response Lab at MIT, Boston University's Pardee Center, Yale University School of Forestry and Environmental Studies, the University of Colorado-Boulder, Wageningen University and Research Centre, Makerere University in Uganda, the University of Cape Town in South Africa, and Argentina's Universidad Nacional de La Plata, as well as many academic conferences on risk. Games developed by the Climate Centre have been integrated into the course work of at least four leading universities in North America and Europe.

5. External communications

The Climate Centre now originates and updates three new strands of content in the sphere of external, i.e. publicly available, content: web news, stills photography and Twitter. These complement other more technical publications such as working papers and other case studies, and products like the Minimum Standards and the CTK, as well as existing online videos and case studies.

In addition, the Climate Centre is collaborating with the IFRC's CPRR and communications departments in preparing communications products for the IFRC website and social media outlets, especially centred on major international events like the annual UN climate talks and IPCC assessment reports.

5.1 Home-page news

By the end of 2013 and since the revamping of the home page in late 2012, nearly 90 news stories had been posted on home page of www.climatecentre.org – making this one of the best single sources of information on the interface between climate and humanitarian issues in the world. These stories are aimed principally, but not exclusively, at National Red Cross Red Crescent Societies and IFRC secretariat staff concerned with the humanitarian impacts of climate change.

As part of the home-page redesign, we also now make more use of the long-term vertical grey bar on the right of the page, for example, to flag IFRC guidance to National Societies on climate issues, updated in 2013, as well as its *World Disasters Report 2013* and its special page on Typhoon Haiyan, we well as IPCC material and COP meetings.

Google analytics show an increase of just over 13 per cent in unique page-views in 2013 and just under 10 per cent more visitors; 16,523 individuals looked at www.climatecentre.org last year, from (in descending order) the US, the Netherlands, the UK, Switzerland, Germany, Australia, Italy, India, Canada and Poland.

5.2 Photography and Flickr

We have now assembled nearly 30 sets of still photos sets on Flickr, including some professional shoots, licensed as *Creative Commons, non-commercial, with attribution* and freely available for download and use by stakeholders. This is intended to be a resource for National Societies and others interested in the issues covered, which include COP meetings, PfR, educational games, climate services, forecast-based funding, adaptation, health-risk management, participatory video and more.

5.3 Twitter

Our Twitter following has grown steadily to its current total of nearly 550 followers, broadly from the professional community of interest. However, we are not chasing numbers for their own sake on Twitter and do not devote significant resources to scanning the environment and the media for potential tweets and retweets.

5.4 Support to IFRC communications

In support of the IFRC secretariat, the Climate Centre prepared web stories on the release of IPCC Working Group I Report, as well as on the climate signal in Typhoon Haiyan. At COP 19 in Warsaw, the Centre provided multimedia external communications support to the IFRC secretariat, posting a total of eight web stories and professional stills photography – helpfully facilitated by the Polish Red Cross – at both IFRC side-events: D&C Days and a seminar, *Linking Adaptation and Mitigation to Address Multiple Risks,* co-hosted by the International Federation with the Center for International Forestry Research.

6. Following the future

As the Red Cross Red Crescent Movement's reference centre on climate, now well into its second decade, we devote a substantial amount of time to monitoring – and where needed contibuting to the shaping of – emerging developments in policy and practice.

In 2013, two such topics were geoengineering and "loss and damage". A cross-cutting new area on tools, techniques and interactivity (s*ee below*) focuses on interactive games, e-tools, and crowdsourcing, enabling the Red Cross Red Crescent to make use of new opportunities for more effective communication and planning for climate risk.

6.1 Geoengineering

The Climate Centre has established itself as a stakeholder promoting the prioritizing of the most vulnerable people when examining geoengineering options, with many important players inviting us to join initiatives. The deliberate manipulation of climate generates risks, known and unknown, as well as possibly uneven distribution of impacts, posing a special risk to the most vulnerable.

The Climate Centre is one of the few humanitarian organization engaged in policy dialogues on the topic. Our engagement in this area includes (membership and/or authorship):

- Project Advisory Board of the European Trans-disciplinary Assessment of Climate Engineering.
- Advisory Group for the Climate Engineering Conference, 2014.
- Paper on geoengineering and the humanitarian challenge for the *Geoengineering Our Climate, Working Paper and Opinion Article Series,* supported by a high-profile international coalition of academic and civil society bodies.
- Participatory game on humanitarian consequences of geoengineering facilitated at the summer school on geoengineering at Harvard University and the Institute for Advanced Sustainability Studies in Potsdam.

6.2 Loss and damage

While the topic had been emerging for several years, 2013 was clearly a breakthrough year for the loss and damage UNFCC negotiating strand. This framing acknowledges that *mitigation* (reducing GHG emissions) hasn't stopped the climate from changing, and adaptation won't be able to avoid all rising risks, so we will be facing loss and damage due to climate change.

The political debate is largely around compensation, where developing countries are claiming financial support from the rich countries that have contributed the most to GHG emissions. Developed countries argue that the damages could never be attributed directly to climate change, partly because of scientific difficulty of attributing of extreme events, but also because loss and damage depend on exposure and vulnerability to the changing hazards, which are not directly attributable to climate change but depend strongly on human behaviour in managing risk.

This discussion, of course, also affects the humanitarian mandate: we are the ones providing disaster response when efforts to reduce risk have failed. In early 2013, we worked with the CPRR department in Geneva to inform IFRC senior management, advising them not to take a formal position on this topic yet, in the light of the highly political nature of the discussions in the UNFCC.

However, we did agree to provide technical inputs to the discussions and informed a range of events through the year, including the CAULDRON game at D&C Days. We have emphasized the role of the humanitarian system and the need to build on existing capacities. A holistic approach to reducing and managing risk, not creating new institutions or departmental silos, will avoid making humanitarian assistance contingent on climate *change*.

In Warsaw, the UNFCC formally adopted a new work programme on loss and damage, creating a formal negotiating mandate. While it will remain contentious, we will work with the IFRC to follow the topic closely, particularly monitoring the implications for climate finance.

6.3 Tools, techniques and interactivity

The use of games for learning has been consolidated throughout the Red Cross Red Crescent and the Climate Centre is now also exploring other innovative approaches to improve engagement, collaboration and creativity in learning processes. It has started collaborating with professionals who borrow methods, skills and activities from improvisation, theatre and jazz to help humanitarian practitioners feel connected in the face of the unknown. This growing collaboration is being shaped with MIT and the Applied Improvisation Network.

Another approach which resulted from the interaction with AIN has been redefining criteria for the success of humanitarian events by organizers and participants, leading to more tailored design and facilitation of interactions geared towards specific new outcomes. Young researchers have been recruited as volunteers to integrate this approach into events that the Climate Centre is convening for 2014, including "Future Climate for Africa" research in Zambia, and the forthcoming COP 20 meeting in Lima, Peru.

After the uptake of Climate Centre games by the Red Cross Red Crescent and other partners, we started a digitization process with two successful games, *Paying for predictions* and *Upriver.*

Another area of interest in 2013 was *crowdsourcing,* defined as obtaining services, ideas or content through contributions from a large group of people, especially from an online community, rather than more usual sources like employees or suppliers.[7] A *Paying for predictions* competitor established a digital platform for stakeholders to test a collective strategy for disaster management based on forecasts. This led to a joint partnership to use crowdsourcing with the American Red Cross, the Global Facility for Disaster Reduction and Recovery, the Harvard Humanitarian Initiative and King's College London.

7 Source: Merriam-Webster via Wikipedia.

7. Finance and administration

7.1 Income[8]

The bulk of Climate Centre funding in 2013 came from the Government of the Netherlands, and the Africa Climate Change Resilience Alliance, CDKN, and JICA, as well as the American, Canadian, Netherlands and Norwegian Red Cross.

The following National Societies have contributed financially either to core costs or specific activities:

- American Red Cross
- Australian Red Cross (through funding a staff member in a shared position)
- Austrian Red Cross
- British Red Cross
- Canadian Red Cross
- Finnish Red Cross
- German Red Cross
- Netherlands Red Cross
- Norwegian Red Cross
- Swiss Red Cross

8 All lists in this section in alphabetical order.

The other financial contributors to Climate Centre programmes were:

- Africa Climate Change Resilience Alliance
- Climate and Development Knowledge Network
- European Commission (via the International Research Consortium on Dengue Risk Assessment, Management and Surveillance)
- International Institute for Environment and Development
- Japan International Cooperation Agency
- Government of the Netherlands
- Norwegian University of Life Sciences
- Government of the United States
- USAID
- World Bank

We thank all of them warmly for the generous collaboration.

7.2 Organization

The Climate Centre is an independent foundation under Dutch law. The Centre has three board members responsible for management and policy, one nominated by the Netherlands Red Cross (NLRC) and another by the IFRC, and an independent chair selected jointly by the NLRC and IFRC.

IFRC board member Matthias Schmale was succeeded last year by the new IFRC Under Secretary General, Walter Cotte. The governing board met in July and December 2013.

The Climate Centre remains grateful to its hosts, the Netherlands Red Cross in The Hague. Each year the Centre receives support from many different departments of the NLRC and benefits from the expertise of its human resources, legal and financial departments.

7.3 Board

Name and function	Position in 2013
Mr E.H.T.M. Nijpels, *Chair*	Chairman NLIngenieurs (Dutch association of consulting engineers), former Netherlands Minister of the Environment
Mr Walter Cotte	Under Secretary General, IFRC
Mr Cees Breederveld, *Treasurer*	Director General, Netherlands Red Cross

7.4 Staff and consultants

The Climate Centre is largely a virtual team. Some core staff are based at the NLRC headquarters in The Hague, but the others are based in many different countries worldwide, facilitating our support to National Societies and our collaboration with academic partners.

As well as those listed below, we have a strong network of counterparts in a range of IFRC offices, National Societies, and partner institutions, as well as several expert consultants.

The daily work of the Climate Centre in 2013 was carried out by the following team members:

Maarten van Aalst, Director (80%)
Maarten is responsible for overall management, strategy and policy development; links to the scientific community; analysis and guidance on climate risk management in Red Cross Red Crescent programmes; support to international policy and programmes. In addition, he is coordinating Lead Author in the Intergovernmental Panel on Climate Change.

Madeleen Helmer, Director, Policy and Communication (70%)
Madeleen was responsible for communications and advocacy, particularly the UNFCCC negotiation processes and the EU, as well as mobilization of resources, and coordination with the Red Cross Red Crescent Movement. Madeleen left the Climate Centre in October 2013. We are immensely grateful for the legacy she has left behind as founder of the Climate Centre.

Pablo Suarez, Associate Director Research and Innovation (90%)
Pablo is responsible for applied research and innovation, audio-visual work and for the development of participatory games of the Climate Centre, as well as technical advice on climate smart risk reduction programmes to National Societies in the Americas and Africa.

Fleur Monasso, Senior Programme Officer (80%)
Fleur is manager of the Climate Centre's programmes. She provides technical support for health and capacity building programmes and coordinates the PfR programme.

Rebecca McNaught, Senior Programme Officer (50%) (shared position with Australian Red Cross)
Responsible for development of capacity building tools and guidance, and for synergizing learning of Climate Centre products with lessons from the implementation of climate-smart programmes in the Pacific.

Knud Falk, Technical Advisor (50%)
Knud assists the Climate Centre in technical advice in PfR India and, more broadly, support to the Movement on climate-related programme development and resource mobilization. He is an expert in the field of local disaster risk reduction, climate change adaptation and ecological monitoring, surveys and assessment.

Erin Coughlan, Senior Climate Specialist (100%)
Erin supports Climate Centre programmes (PfR and German Red Cross-supported programming) to build awareness and capacity for climate risk management. She is also Climate Centre liaison at IRI.

Carina Bachofen, Senior Policy Officer (100%)
Carina supports PfR in Central America and programmes to build awareness and capacity for climate risk management, with an increasing focus on the design and facilitation of participatory games.

Desiree Davidse, Office Manager (80%)
Desiree was responsible for desk support, secretarial support and office management, including travel support to the team, consultant and intern contract management, and maintaining the Centre's website and newsletters. She left the team early 2013 and we are grateful for her hard work and commitment to the Centre.

Alex Wynter, Editor and Communications Adviser (20%)
Alex, a former IFRC information delegate, edits the Climate Centre's English-language and social-media output, and handles media outreach.

Louisa Whitlock, Programme Officer (50%) (shared position with the Austrian Red Cross)
Louisa coordinates our Junior Researchers Programme, bringing graduate students in climate fields to PfR partners and IFRC offices around the world.

Marije Taat, Office Manager (80%)
Marije is responsible for desk support, secretarial support and office management, including travel support to the team, consultant and intern contract management, and maintaining the Centre's website.

Donna Lagdameo, Technical Advisor (50%)
Donna supports the Partners for Resilience and CDKN programmes in the Philippines and Indonesia. She is based in Manila and provides support to the wider Red Cross Red Crescent Movement on climate-related programme development, advocacy and capacity building.

Atta Muhammad Murtaza Durrani, Project Officer (20%)
In 2013, Atta started a shared position with the Climate Centre (20%) and the German Red Cross (80%) in Somalia. He brings a wealth of experience of climate- smart community based DRR, and contributes to global guidance, capacity building and climate mainstreaming in German Red Cross programmes.

Sowdamini (Mini) Saraswati, (30%) Technical Consultant
Mini provides technical assistance to tool development and data analysis. She assists with the provision of climate information to the Red Cross Red Crescent system and is involved in our African projects and the IRI-led Caribbean project. She joined the Climate Centre team in September 2013 and is based in New York.

8. Annual accounts 2013

Balance sheet as at 31 December 2013 (in euros)

After appropriation of the result

Assets	12/31/13	12/31/12	Liabilities	12/31/13	12/31/12
Tangible fixed assets (1)	2,954	3,907	Unrestricted funds		
Accounts receivable			– going concern reserve (4)	590,491	522,022
and prepayments (2)	457,925	333,385	Restricted funds		
Cash and cash			– donor restricted funds (5)	170,515	113,896
equivalents (3)	521,854	621,445	Total equity	761,006	635,918
			Short-term debts (6)	221,727	322,819
	982,733	**958,737**		**982,733**	**958,737**

Statement of income and expenditure for 2013 (in euros)

Income	Actual 2013	Budget 2013	Actual 2012
Income from own fund-raising			
Gifts and donations (7)	588,283	771,623	474,115
Government grants (8)	640,258	686,333	635,783
Other income and expenditures	20,903	-	20,349
Total available for Climate Centre's objectives	**1,249,444**	**1,457,956**	**1,130,247**
Expenditure			
Climate Centre operations			
– own activities (9)	1,142,516	1,392,956	957,764
– general operating costs (10)	18,160-	8,081-	5,230-
Total expenditure for Climate Centre's objectives	**1,124,356**	**1,384,875**	**952,534**
Balance for the year	**125,088**	**73,081**	**177,713**
Appropriation of balance for the year			
– donor restricted funds	56,619	-	15,715
– going concern reserve	68,469	73,081	161,998
	125,088	**73,081**	**177,713**
Brief summary			
Donor restricted funds			
– Income	935,779	-	840,703
– Expenditure	879,160	-	824,988
	56,619	-	15,715
Going concern reserve			
– Income	313,665	1,457,956	289,544
– Expenditure	245,196	1,384,875	127,546
	68,469	73,081	161,998
	125,088	**73,081**	**177,713**

Notes

The 2013 financial statements have been prepared in accordance with the provisions of the Guideline for annual reporting C1 "small not-for-profit organizations" (*Richtlijn Verslaggeving kleine Organisaties zonder winststreven*). They aim to give an understanding of income and expenditure and the overall financial position of the International Red Cross/Red Crescent Climate Centre.

Principles of valuation and presentation

General

The financial statements have been drawn up on the historic costs. Unless stated otherwise, the assets and liabilities are posted at nominal value. Balance-sheet items in foreign currencies are converted at the rate on the date of the balance sheet, and the ensuing gains or losses in exchange are recorded in the statement of income and expenditure under the heading "investment revenues". Unless stated otherwise, all amounts are given in euros.

Financial Instruments

Financial instruments of the entity include receivables, cash items and also trade creditors and other payables. Financial instruments are initially stated at fair value, including discount or premium and directly attributable transaction costs. After initial recognition financial instruments are valued in the manner as described below.

Tangible fixed assets

These are stated at acquisition cost less cumulative depreciation. Depreciation is calculated as a percentage of the acquisition cost, according to the straight-line method on the basis of useful life.

Accounts receivable

Receivables are carried at amortised costs using the effective interest method (for the entity equalling the nominal value) less any bad debt provision deemed necessary.

Trade creditors and other payables

Trade creditors and other payables are carried at amortised costs using the effective interest method (for the entity equalling the nominal value).

Principles for determination of the result

Costs and revenues are allocated to the period to which they relate. The entities' pension plan is a defined contribution pension plan. Obligations for the contribution to this plan are recognised as an expense in the statement of income and expense as incurred.

Government grants

Grants that the provider has made dependent upon the costs of a project are included in the statement of income and expenditure for the year in which the subsidized expenditure was incurred.

Notes to the balance sheet as at 31 December 2013 (in euros)

Tangible fixed assets (1)	**2013**	**2012**
Acquisition cost at 1 January	3,907	-
Investments (computers)	688	4,444
Depreciation charged for year (33.33%)	-1,641	-537
Book value at 31 December	**2,954**	**3,907**

Accounts receivable and prepayments (2)	**2013**	**2013**
Receivables re activities	453,626	332,183
Accrued interest	4,299	1,202
Total	**457,925**	**333,385**

Almost all receivables have a remaining term of less than 1 year.

Cash and cash equivalents (3)	**2013**	**2012**
Current accounts	521,854	621,445
Total	**521,854**	**621,445**

Equity

In accordance with the aforementioned guidelines, the Climate Centre's equity is broken down into restricted funds and unrestricted funds. Restricted, earmarked funds are that part of equity to which a third party has dictated a specific use, and the Climate Centre can only use these funds for that purpose. The remaining equity is reported as unrestricted.

Going concern reserve (4)	2013	2012
Balance at 1 January	522,022	360,024
Appropriation of balance for the year	68,469	161,998
Balance at 31 December	**590,491**	**522,022**

Restricted funds (5)	2013	2012
Balance at 1 January	113,896	98,181
Appropriation of balance for the year	56,619	15,715
Balance at 31 December	**170,515**	**113,896**

	Balance 1-Jan	Appropriation of balance		Balance 31-Dec
		Income	Expenditure	
IASC	18,452	-	-	18,452
Audiovisuals	8,690	-	-	8,690
Partners for Resilience (Dutch Government / MFS II)	-	378,130	378,130-	-
Climate Training Kit (Canadian RC)	19,222	24,109	43,331-	-
IDAMS (European Commission)	16,745	2,239	2,171-	16,813
CDKN Africa	2,042	28,712	30,754-	-
CDKN Asia	57,215	95,643	69,657-	83,201
CDKN Qatar	35,582-	52,776	17,194-	-
ACCRA	10,625	50,865	46,846-	14,644
Norwegian Red Cross	7,006	102,707	109,713-	-
Norwegian University of Live Sciences	9,481	35,328	31,927-	12,882
American Red Cross games	-	111,433	111,433-	-
World bank	-	49,352	33,519-	15,833
USAID Zambia	-	4,485	4,485-	-
	113,896	**935,779**	**879,160-**	**170,515**

The donor-restricted funds include the portion of equity that may only be used for certain purposes, either because a third-party (donor) has stipulated the restriction or because the money was collected for a specific purpose. Allocations to the donor-restricted funds are determined according to the specific purposes for which gifts and donations are given.

The Climate Centre's policy is to spend the restricted funds within three years of the stipulation being made.

Short-term debts (6)	**2013**	**2012**
Accounts payable	39,207	124,643
Taxes and social security premiums	15,001	9,148
Other accounts debt	167,519	189,028
Total	**221,727**	**322,819**

Notes to the statement of income and expenditure for 2013 (in euros)

Gifts and donations (7)		Actual 2013	Budget 2013	Actual 2012
PNSs:	Netherlands Red Cross	25,000	622,523	80,000
	German Red Cross	60,745		10,000
	Danish Red Cross	1,191		15,409
	American Red Cross	120,887		58,076
	Swiss Red Cross	12,169		12,443
	British Red Cross	14,269		4,756
	Austrian Red Cross	41,432		14,050
	Norwegian Red Cross	102,707		105,634
	Finnish Red Cross	12,448		5,197
	Canadian Red Cross	24,109		35,870
		414,957	**622,523**	**341,435**
Statkraft		-	-	21,180
IDRC		-	-	7,762
IIED		7,174	-	-
Global Environment Facility		23,883	-	-
Norwegian University of Live Sciences		35,328	46,100	9,986
IDAMS (European Commission)		2,239	-	-
Health and Climate (Rockefeller)		-	-	39,450
ACCRA		50,865	103,000	54,224
World Bank		49,352	-	-
Usaid Zambia		4,485	-	-
Other		-	-	78
Total		**588,283**	**771,623**	**474,115**

Government grants (8)	Actual 2013	Budget 2013	Actual 2012
Partners for Resilience (Dutch Government / MFS II)	378,130	464,940	286,812
CDKN (Department for International Development)	177,131	221,393	299,051
ICLEI (Local Governments for Sustainability)	3,476	-	-
JICA (Japan International Cooperation Agency)	81,521	-	49,920
Total	**640,258**	**686,333**	**635,783**

Climate Centre operations (9)

Own activities	Actual 2013	Budget 2013	Actual 2012
Attributed to projects	558,034	753,081	425,134
Other personnel expenses	92,825		81,363
Consultants/volunteers	396,616		400,963
Office and housings costs	87,517	639,875	47,911
Campaign materials	4,618		442
Other direct costs	2,906		1,951
Total	**1,142,516**	**1,392,956**	**957,764**

Climate Centre Operations (10)

General operating costs	Actual 2013	Budget 2013	Actual 2012
Personnel expenses			
Salaries	202,161	289,599	178,167
Salaries foreign staff	228,320	327,072	130,767
Social security charges	27,275	39,072	27,709
Pension contributions	13,443	19,257	13,365
Attributed to projects	558,034-	753,081-	425,134-
	86,835-	**78,081-**	**75,126-**
Other personnel expenses	1,934-		8,975
Consultants/volunteers	34,229		13,739
Office and housings costs	28,723	70,000	38,067
Campaign materials	-		181
Other general costs	7,657		8,934
Total	**18,160-**	**8,081-**	**5,230-**

During the financial year, the average number of (part time) employees or long term consultants amounts to 13 (2012: 11) of which 9 persons were employed outside the Netherlands (2012: 7 persons).

No board member has received a salary, loans or guarantees.

The Hague, 26 June 2014

Board of Governors

Mr E.H.T.M. Nijpels	*Chairman*
Mr G. de Vries	*Treasurer*
Mr W. Cotte	*Member of the Board*

Other information

Independent Auditor's report

To the board of governors of the Red Cross/Red Crescent Climate Centre.

Report on the financial statements

We have audited the 2013 financial statements of the Red Cross/Red Crescent Climate Centre at The Hague, which comprise the balance sheet at 31 December 2013, the statement of income and expenditure for the year then ended on that day, and summary notes of the accounting policies and other explanatory information.

Management's responsibility

Management is responsible for the preparation and fair presentation of the financial statements and for the preparation of the management board report in accordance with the Guideline for annual reporting C1 "small not-for-profit organizations". Management is further responsible for such internal control as it deems necessary to enable the preparation of the financial statements that are free from material misstatement from fraud or error.

Auditor's responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with Dutch law and auditing standards, requiring that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves procedures to obtain evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of finances whether due to fraud or error. In making such risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used, and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements herein give a true and fair view of the financial position of the Red Cross/Red Crescent Climate Centre on 31 December 2013, and of its result for the year ended on that day in accordance with the Guideline for annual reporting C1 "small not-for-profit organizations" of the Dutch Accounting Standards Board.

Report on management board report

We have no deficiencies to report as a result of our examination whether the management board report, to the extent we can assess, has been prepared in accordance with the Guideline for annual reporting C1 "small not-for-profit organizations" of the Dutch Accounting Standards Board. Further, we report that the management board report, to the extent we can assess, is consistent with the financial statements.

The Hague, 26 June 2014

KPMG Accountants N.V.

H. Visser RA.

Colophon

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PO Box 28120
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Text
Red Cross Red Crescent Climate Centre

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Design
Eszter Saródy