RED CROSS/RED CRESCENT CLIMATE CENTRE

International Federation of Red Cross and Red Crescent Societies

The Netherlands Red Cross

What does the latest climate science mean for the Red Cross Red Crescent?

Key questions and answers about the IPCC's Working Group II report on Impacts, Adaptation, and Vulnerability

March 2014

Key conclusions

The main conclusions of the IPCC WGII report as relevant for the Red Cross Red Crescent are as follows:

- **Risks have already increased, and will continue to rise** for several decades to come (even if we drastically cut greenhouse gas emissions today).
- We can largely handle those rising risks, but **we have to do more to anticipate and reduce risks** rather than just respond after impacts have occurred.
- For the second half of the century, we face a bigger choice – one that needs to be made now. **If we do not cut greenhouse gas emissions drastically and quite soon, we will face greater and greater risks** (with potentially severe humanitarian consequences).

This document[1] answers some key questions about the findings of the IPCC Working Group II report (WGII AR5). An overview of the main contents can be found in the RCCC key scientific information on IPCC WG II. Much more detailed information is available in the thematic and regional chapters of the IPCC report itself (about 2000 pages in total).

Q: What is the Intergovernmental Panel on Climate Change (IPCC)?

A: The IPCC is a scientific body under the United Nations (UN) responsible for reviewing all knowledge on climate change. Thousands of scientists contribute to the IPCC; their reports are accompanied by a "Summary for Policy Makers" (SPM), endorsed by all governments. This document is the basis for international negotiations about climate change and is used for the national climate policy of many countries.

Working Group II (WG II) reports on *impacts, adaptation and vulnerability*. It builds on an earlier report by IPCC WG I (September 2013), which covered the physical climate science, summarized here[2]. It is followed by a WG III report on how to reduce greenhouse gas emissions ('mitigation' in IPCC terms).

Q: Why is the new IPCC report important to the Red Cross Red Crescent?

A: Climate strongly affects many areas of Red Cross Red Crescent work such as disaster risk, food security, and health. This report allows us to anticipate how climate-related disasters and other humanitarian challenges might change in the future, and offers guidance on potential approaches to adapt.

In addition, it is important to note that **all governments in the world have adopted the Summary for Policy Makers of this report**. Therefore, it provides an important basis for our policy dialogues with governments, for instance when we request attention for most vulnerable groups in national adaptation plans.

Q: Is climate change already happening?

[1] This briefing note represent the Red Cross Red Crescent's view on the IPCC WG II report. Exact IPCC statements are made using IPCC uncertainty language which is explained in annex I. All figures are based on IPCC figures.

[2] Link to WG I Climate Centre notes: http://www.climatecentre.org/downloads/File/IPCC/IPCC-AR5-WGI_RCnotes_final.pdf

A: Yes, climate change is already happening. These changes in the climate are already affecting, for instance, water resources, health and crops (see section 2 of the RCCC key scientific information).

In many cases, the impacts of climate change result not from slow changes in average conditions, but from climates variability and extremes, combined with changes in human exposure and vulnerability.

Q: What will the future look like?

***A:* We expect further changes in global, regional, and local climate.** This will include changes in temperature, rainfall, and sea level, as well as changes in extremes. For details, see the RCCC key scientific information.

These climate changes will further increase the risk to people and ecosystems. Besides rising disaster risk, this could cause decreases in agricultural production worldwide, negative impacts on health in many regions, and extensive impacts on ecosystems. In some regions, there could also be some positive impacts of climate change, but overall, positive impacts could be outweighed by the magnitude and severity of negative impacts.

Q: What will happen to the climate in my region?

***A:* It is difficult to say *exactly* how all aspects of the climate will change in specific locations.**
If you need climate information for a specific country or project, the IPCC report provides a general background, but not the best tailored information, which can usually best be gathered from national or regional climate institutions. Please contact the dedicated IFRC climate information helpdesk ifrc@iri.columbia.edu or climatecentre@climatecentre.org if you require support on such questions.

However, general patterns are as follows:

- Temperature is increasing almost everywhere, as well as temperature extremes and heatwaves.
- Sea levels are rising.
- There will be changes in rainfall, but these differ from region to region, and are often less certain.
- Many extremes, such as in precipitation and high sea level, are changing.

For more regionally specific information see this table: *Changes in regional temperature and rainfall extremes* and for more information at the global level, see this table: *Global changes in climate extremes*.

Q: Does climate change increase disaster risk?

***A:* Disaster risk is increasing, but this increase results from a combination of (1) shifts in climate-related hazards, and (2) changes in exposure and (3) vulnerability (where people are living and how vulnerable they are to an extreme event).**

For details on the changes in the climate itself, see the links in the previous answer. For a more general IPCC perspective on climate and disasters, see the recent IPCC report on extremes and disasters.

Q: Who is most vulnerable to climate change?

***A:* People who are socially, economically, culturally, politically, institutionally, or otherwise marginalized are especially vulnerable to climate change and also differentially affected by some adaptation and mitigation responses.** Differences in vulnerability and exposure are rarely due to a single cause but result from the product of intersecting social processes that result in inequalities in socioeconomic status and income. Such social processes include, for example, discrimination on the basis of gender, class, ethnicity, age, and (dis)ability. These differences shape differential risks from climate change.

Uncertainties about future vulnerability, exposure, and responses of interlinked human and natural systems are large. Assessing future risk involves anticipating decisions that will be made by humans around the world. These are difficult to assess because we are uncertain about how social, economic, and cultural factors might change over time, such as governance structures, access to technology, or relations between countries.

Q: Does climate change cause migration, or conflict?

A: **Yes, climate change over the 21st century is projected to increase migration of people and can increase risks of violent conflicts by amplifying drivers of these conflicts such as poverty and economic shocks.** Risk of displacement depends on specific opportunities and events, and can be affected by extreme weather events as well as long-term climate fluctuations and trends. Because of this complexity, we cannot project how many people will move in any given location. However, it is clear that many climate change impacts, such as sea level rise or changes to transboundary river basins, will influence national and international policies.

In the other direction, it is agreed that violent conflict increases vulnerability to climate change. Large-scale **violent conflict harms assets that facilitate adaptation, including infrastructure, institutions, natural resources, social capital, and livelihood opportunities.**

Q: Can further climate change still be prevented?

A: **Changes in the next few decades cannot be prevented – we have already emitted such a large quantity of greenhouse gas into the atmosphere that global warming will continue for decades.** We have no choice but to adapt and deal with the impacts of the changes we cannot stop.

However, we can prevent this from becoming much worse in the second half of the century. We can still prevent even more dramatic changes, but we have to reduce greenhouse gases emissions quickly.

Q: What should we, in the Red Cross Red Crescent, do about the rising climate risks?

A: In order to address the rising risks, we can enhance our preparedness for disaster response. In addition, **we should particularly focus more of our efforts to build resilience and reduce the risk of disasters or health emergencies *before* they happen**. In doing so, we should address the increasing risks and rising uncertainties by making better use of climate and weather forecasts across a range of timescales.

In addition, we can **raise public awareness** and **engage in policy dialogues** about the changing risks, highlighting our concern about the risks to the most vulnerable people, and the local capacity to reduce risk as an essential component of national climate policies.

Finally, the Red Cross Red Crescent itself is also committed to helping **address the root causes of climate change** by promoting environmentally-friendly behaviours, especially when they combine adaptation and mitigation benefits. For example, the reforestation of hillsides can reduce flood risks while new trees, as they grow, absorb greenhouse gases (climate change mitigation).