



Climate Change and Disaster Risk Course

Session 1 – Science and impacts

The first presentation introduces the basic processes that lead to climate change and the impact of changing climate to disaster risk. It will demonstrate that climate change is already happening and seemingly small changes in average global temperatures can have large effects on the risk of weather-related disasters. The presentation argues that while there is a rapid rise in number of natural disasters, in economic damages and in people affected due to the increase in weather-related disasters, the main reason of this trend is high concentration of people and assets in dangerous areas that result in increased vulnerability. One example is the large-scale rural-to-urban migration in many developing countries, often concentrating poor people in unsuitable urban slums in river deltas. Another is the ongoing coastal development in hurricane-prone areas, putting more and more assets at risk. Examples will show that trends in vulnerability to natural hazards are at least as important as the trends in the hazards themselves. The difference is that vulnerability is something we can try to reduce, whereas the increase in hazards brought on by climate change is given, and can only be influenced over the span of several decades by reducing greenhouse gas concentrations.

Session 2 – Implications for policy and practice

The second presentation looks at the impacts of increasing hazards. Who are most vulnerable, and how should this vulnerability be addressed? It shows that rising risks have severe implications for economic development and poverty reduction, and need to be factored into development planning and practice. One of the key messages of this presentation is that climate risks, like disaster risks, are not isolated issues to be dealt with by a ministry of environment or a national disaster management office. Hence, the session takes a special look at the implications of the rising climate risks for development planning, and how these trends should be integrated through a climate risk management approach, addressing not just the incremental changes, but the whole spectrum of climate risks, including current climate variability and weather extremes.

Session 3 – Information, methods and tools

The third presentation discusses some of the information, methods and tools that are available for climate risk management. The methods and tools discussed in this presentation will focus primarily on finding out how a changing climate affects a particular activity, plan or policy. However, it is important to stress that in many cases better addressing the climate-related risks that we face today goes along managing the risks in a future climate. In that sense, a lot of methods and tools from “regular” disaster risk reduction can also be applied to help reduce vulnerability to climate change. The session also emphasizes that with respect to methods and tools there is no one-size-fits-all that can be applied to all countries, all sectors and all types of stakeholders. While the presentation can not cover all the specific circumstances and discuss in detail particular climate risk management methods and tools, it gives an overview of sources of information, and presents examples for various types of situations.

Case Study 1 - Climate risk management in national planning: Kiribati

This case study presents the Kiribati Adaptation Program (KAP), one of the first programs to integrate climate risk management in national economic planning. By linking bottom-up participatory consultation with top-down planning, it is mustering the capacity of a wide range of stakeholders to reduce the small Pacific island country’s vulnerability to climate change, climate variability, and sea-level rise. While some aspects of the Kiribati Adaptation Program are exclusive to this country’s circumstances, many elements also are relevant to other countries.

The case study is based on a lessons learned paper on the preparation phase of the Kiribati Adaptation Program, written by Maarten van Aalst, Idah Pswarayi-Riddihough and Sofia Bettencourt.

Case Study 2 - Climate risk management in sector planning: the Philippines

This case study presents an application of climate risk management in a sectoral context: a project on climate risk management in agriculture and natural resources in the Philippines, integrated into a set of regular investment projects. It discusses (a) the risks facing the Philippines; (b) the additional impacts of climate change; (c) the approach of the risk management project; (d) the project components; and (e) implementation arrangements. The example of an actual project under development shows how the mainstreaming of climate risk management is being approached in a real-life context.

Case Study 3 - Climate risk reduction by the Nicaragua Red Cross put to the test

This case study describes the experiences during hurricane Felix in Nicaragua. The hurricane hit the Nicaraguan Atlantic Coast in an area where the Nicaragua Red Cross had been working on climate risk reduction. The unique project, one of the first of its kind, aimed at integrating climate change into regular programs of a major disaster management organization. The experiences during hurricane Felix show that preparedness pays off, but also that climate change will continue to bring new challenges and surprises.

Readings