



WWF

BRIEFING

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Key concepts in climate change

CLIMATE CHANGE ADAPTATION

Introduction

Despite continuing efforts to slow the rate and degree of human-induced climate change, its impacts are now unavoidable.

Climate change adaptation is a process that enables us to manage rapid change. It involves adjustments in human and ecological systems at different scales and by different actors. WWF is involved in adaptation in a number of ways:

- raising awareness
- developing tools and methods
- influencing policy and planning
- research
- capacity building, and
- adaptive management.

Any or all of these ingredients may be necessary for successful adaptation.

Adaptation is a process that enables us to manage rapid change.

What is climate change adaptation?

Some aspects of adaptation are not new; people and nature have reacted to climate change and variability in the past. Climate change adaptation includes well-established practices such as disaster risk reduction, coastal management, water resource management, spatial planning, and public health. It can be difficult to separate adaptation actions from those triggered by other events.

What is new are unprecedented climate conditions, faster change, greater uncertainty, and our need for new knowledge and methods.

Adaptive capacity

Adaptive capacity refers to the ability of institutions, systems, or individuals to adjust to potential damage, to take advantage of opportunities, or to cope with the consequences. In human societies it is determined by a range of factors including economic resources, technology, information and skills, infrastructure, institutions, and equity.

Institutions and governance figure prominently in capacity building for adaptation because of their importance in creating enabling conditions.

How do we measure success?

The goal of adaptation can vary. It could be to maintain climate-related risks at present levels; to reduce these risks if present levels are unacceptable; or to minimise exposure of the most vulnerable people, species and ecosystems.

Due to the continuous nature of adaptation, monitoring and evaluation might require measuring something that has yet to happen. However the focus of adaptation intervention is often on building adaptive capacity, which can be measured using indicators.

Like any socio-economic decision climate adaptation can create winners and losers. In order to be successful, adaptation planning must involve those people most affected by climate change and consider the diverse values they hold.



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Not all adaptation is good adaptation

Some adaptation strategies can increase the vulnerability of other places, species, sectors or groups. Maladaptation occurs when adaptation actions result in increased emissions of greenhouse gases, impact biodiversity, disproportionately burden the most vulnerable, lock us into unsustainable pathways, or reduce the incentives to adapt.

Adaptation and sustainable development



Adaptation has consequences for sustainable development and these two dialogues have converged to a great degree. Climate change can undermine social, economic and environmental objectives for sustainable development. On the other hand, sustainable adaptation has the potential to address some of the mistakes and shortcomings of the conventional development pathways that have contributed to environmental and social problems.

Adaptation and ecosystems

When we think about climate change and conservation our first response is to try to predict the direct effects of climate change on the species or ecosystems in question. What will the impacts be? Where will species move to and how can we accommodate them? As worrying as this may be, in today's interconnected world it isn't enough.

Human adaptation –such as changes in land use or resource management - will have huge implications for conservation. Climate smart conservation takes a big picture view of these multiple drivers of change.

Images



Front cover: People washing in the river that flows from the Rwenzori Mountains, Kasese District, Uganda. The water levels have dropped considerably. Today, higher incidence of floods brings rocks and debris, which is changing the direction of the river. © WWF-Canon / Simon Rawles.

Page 2: WWF has helped train disaster response team members. One such member Md. Salim demonstrates how he catches fish from his man-made pond which has been sown with fish seed. Mousuni Island, Sundarbans where © WWF-Canon / Simon Rawles.

Page 3: A water dam near the north coast of Tunisia. © Michel Gunther / WWF-Canon.

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Why we are here

To stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature.