



## Fact sheet: The need for adaptation

The world's climate is changing and will continue to change at rates unprecedented in recent human history. The risks associated with these changes are real and are already happening in many systems and sectors essential for human livelihood, including water resources, food security, coastal zones and health. Developing countries, especially those that are least developed are the most vulnerable to these risks. In the most vulnerable communities, the impacts of climate change pose a direct threat to people's very survival. The devastating effects of extreme events, temperature increases and sea level rise will worsen with consequences for all of us, particularly the poor.

### Definition of adaptation

Adaptation is one of the two central approaches in the international climate change process. The term refers to adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities.

- *Climate change impacts* refer to the effects of climate change on natural and human systems.
- *Resilience* in the context of climate change refers to the ability of a social or ecological system to absorb disturbances while retaining the same basic structure and ways of functioning, the capacity for self-organisation, and the capacity to adapt to stress and change.
- *Vulnerability* in the context of climate change is the degree to which a system is susceptible to, and unable to cope with, adverse effects of climate change, including climate variability and extremes.

### Options for responding to adaptation needs

- Adaptation options are many, including:
  - technological options such as increased sea defenses or flood-proof houses
  - behavior change at the individual level, such as the sparing use of water in times of drought
  - early warning systems for extreme events
  - improved risk management
  - insurance options
- biodiversity conservation to reduce the impacts of climate change on people, e.g. by conserving and restoring mangroves to protect people from storms.
- Adaptation needs sufficient and sustained funding. Without such funding, humanity will face increased costs and greater risks in the future, including possible:
  - large-scale population movements, with the number of environmentally displaced persons outgrowing the numbers of "traditional refugees"
  - conflict due to competition over scarcer resources such as water, food and energy.



- Current sources of Overseas Development Aid (ODA) are insufficient to cover the adaptation needs as estimated by the IPCC, the Stern Review and others. Calculations indicate that available per capita money for adaptation in developing countries ranges from between 3 cents per annum to \$3.82 per annum.

#### **Adaptation and sustainable development**

- Climate change has the potential to push developing countries back into the poverty trap and to undo many achievements that have been made to date with regard to the Millennium Development Goals (MDGs).
- Climate change impacts on all aspects of sustainable development.
- Future vulnerability depends not only on climate change but also on development pathways. Sustainable development can reduce vulnerability.
- The implementation of adaptation needs to be integrated:
  - in the context of national and international sustainable development priorities
  - in national and sectoral development plans.
- Steps for effective implementation strategies at the national level:
  - enhancement of the scientific basis for decision making;
  - strengthening methods and tools for the assessment of adaptation;
  - education, training and public awareness on adaptation, including for young people;
  - individual and institutional capacity-building;
  - technology development and transfer; and promotion of local coping strategies;
  - appropriate legislation and regulatory frameworks, which promote adaptive-friendly action;
  - an adaptive planning process that covers different time-scales and levels (e.g. national, regional).
- Using climate change, including adaptation, as a driver to undertake activities with multiple benefits can catalyse progress in achieving a country's sustainable development goals.
- Many countries are starting to take concrete action towards adaptation to climate change. Such action needs to be expanded and integrated into national and sectoral planning to ensure that sustainable development and adaptation are mutually enhanced.



### Current efforts under the UNFCCC

- It is critical that the implementation of adaptation be brought forward on policy agendas.
  - Developing countries need to receive increased and sustained assistance to adapt to the impacts of climate change.
  - The climate change regime has to deliver sustained and sufficient funding for the implementation of large-scale adaptation initiatives to prevent funding being largely limited to “reactive” funding, e.g. short-term emergency relief. Reactive funding would be unsupportive of sustainable development approaches and be very costly.
    - It is estimated that one US dollar invested in anticipatory measures can save up to 7 USD in future relief costs.
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- The UNFCCC commits all Parties to formulate, implement, publish and update adaptation measures, as well as to cooperate on adaptation. It provides for a variety of support mechanisms for adaptation implementation in developing countries, including measures on:
    - the provision of funding
    - insurance and technology transfer
    - scientific and technical assistance for all Parties to enhance their knowledge base
  - National Adaptation Programmes of Action (NAPAs) are currently an option for Least Developed Countries and provide a rigorous assessment of urgent adaptation needs in LDCs.
    - As of May 2009, 40 out of 49 NAPAs had been submitted. In total, 437 projects have been identified, and their total aggregate cost is USD 1.63 billion.
    - Significant support from the international community is needed to implement the projects identified in the NAPAs, such as early-warning systems, disaster risk reduction, improving food security and water resource management.
  - The five-year Nairobi work programme (2005-2010) on impacts, vulnerability and adaptation to climate change (NWP) has the objective of assisting all countries in understanding and assessing impacts, vulnerability and adaptation. It enables informed decision-making on practical adaptation actions and measures and provides a structured framework for cooperation. After completion of a very successful first phase, the second phase of the programme started in June 2008.
    - 136 organizations are partners to the Nairobi work programme
    - More than 20 private sector companies are also partners and many are considering submitting action pledges<sup>1</sup>.
    - 7 calls for action highlighting priority actions to support adaptation, that respond to gaps and needs identified under the NWP, have been produced under the guidance of the Chair of the SBSTA. The calls for action are based on consultations during

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<sup>1</sup> Action pledges provide an interactive way for Nairobi work programme partners, including Parties, IGOs, NGOs and research institutes, to identify and commit publicly to undertaking activities towards the objectives and expected outcomes of the Nairobi work programme.



workshops and expert meetings. One more call for action is included in the NWP progress report for endorsement in SBSTA 30.

- 84 action pledges have been received from 34 organizations
- The Adaptation Practices interface<sup>2</sup> has been established as a gateway to information on adaptation practices worldwide.

### **The Adaptation Fund**

The Adaptation Fund was established to finance concrete adaptation projects and programmes in developing countries that are Parties to the Kyoto Protocol. The Adaptation Fund is to be financed with a share of proceeds from clean development mechanism (CDM) project activities and funds from other sources. The share of proceeds amounts to 2 per cent of certified emission reductions issued for a CDM project activity.

The Adaptation Fund is currently being operationalized by its operating entity the Adaptation Fund Board. The GEF provides secretariat services to the Board and the World Bank serves as the trustee of the Adaptation Fund, both on an interim basis. These interim institutional arrangements will be reviewed after three years. The Adaptation Fund Board is composed of 16 members and 16 alternates and its meetings takes place at least twice a year.

Funding for the Adaptation Fund for post-2012 depends on the continuation of the CDM and the level of demand in the carbon market. Assuming a share of proceeds for adaptation of 2 per cent continues to apply post-2012, the level of funding could be USD 100-500 million per year in 2030 for a low demand scenario by Annex I Parties for credits from non-Annex I Parties and USD 1-5 billion per year for a high demand scenario.

### **Negotiations on the future post-2012**

Parties to the UNFCCC have already highlighted the most important elements that might be part of an enhanced multilateral response to climate change post-2012. Adaptation was identified to be one of the key building blocks of a future climate change deal.

The creation of a higher order of magnitude of sufficient, predictable, additional and sustainable funding will have to come through negotiations on a future regime post-2012.

Parties have emphasized that adaptation and mitigation need to be accorded the same level of importance. Adaptation does not replace mitigation of greenhouse gas emissions. On the contrary, both adaptation and mitigation need to follow parallel tracks during the same period of time, thus complementing each other and be implemented through sufficient financing and appropriate technology.

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<sup>2</sup> [http://unfccc.int/adaptation/nairobi\\_workprogramme/adaptation\\_practices\\_interface/items/4555.php](http://unfccc.int/adaptation/nairobi_workprogramme/adaptation_practices_interface/items/4555.php)