

Global Climate Change Alliance
Support Facility

EUROPEAN UNION

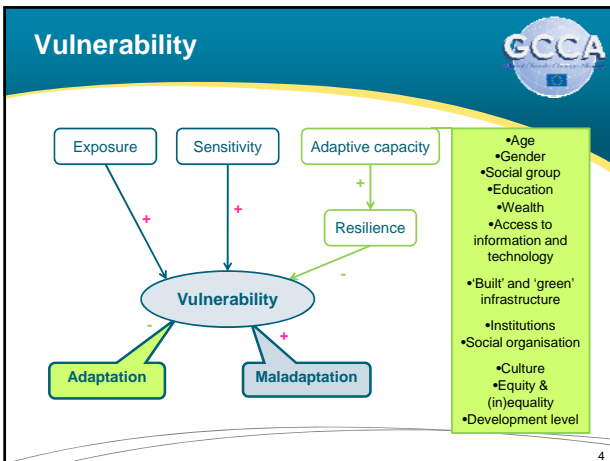
Module 1
Understanding climate change –
development linkages

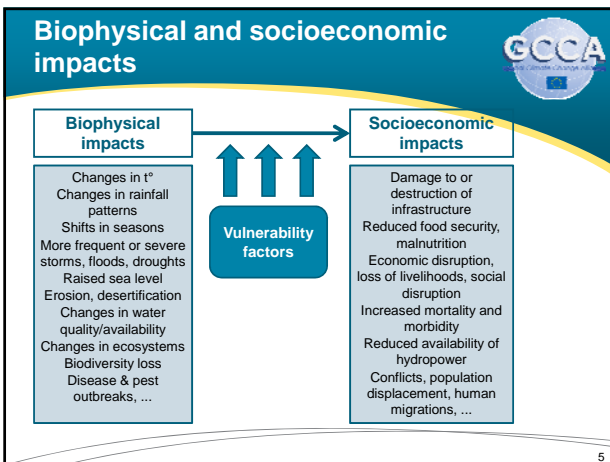
Training workshops on
mainstreaming climate change

Adaptation, mitigation and vulnerability

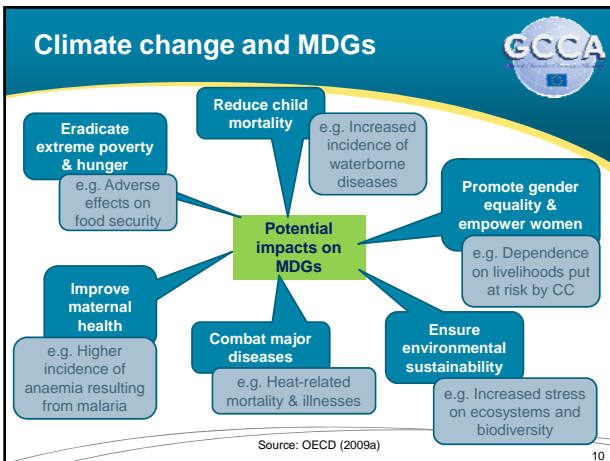
Adaptation and mitigation

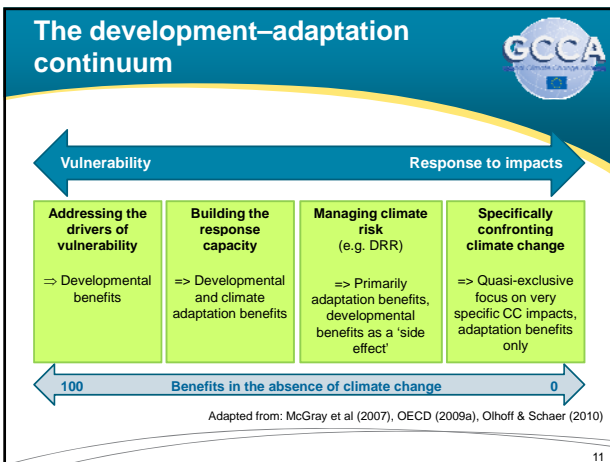
The diagram illustrates a cyclical relationship between human activities and the climate system. At the top, a box labeled 'Human activities' has a downward arrow pointing to a central box labeled 'Climate, environment & natural resources'. From this central box, an arrow points to a box labeled 'Impacts'. From 'Impacts', an arrow points to a box labeled 'Opportunities, risks & constraints'. From 'Opportunities, risks & constraints', an arrow points back to 'Human activities'. This cycle is enclosed within a larger green circle. Two callout boxes, 'Mitigation' and 'Adaptation', are positioned at the top left and top right respectively, with arrows pointing towards the central cycle.



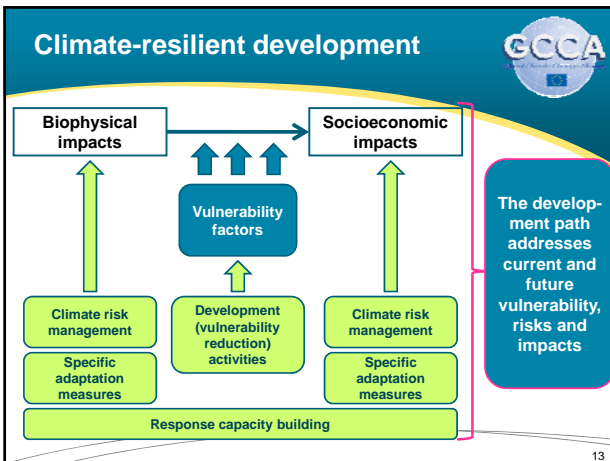


Climate change, environment and development





Moving to climate-resilient, low-emission development



Low-emission development

- Generally, the three 'sectors' that are the biggest contributors to GHG emissions are also the main targets for emission reductions:
 - Energy (fossil-fuel burning)
 - Agriculture
 - Land use change esp. deforestation
- Country-specific emission patterns and development objectives should be considered to determine national mitigation priorities

The development path addresses sources of emissions

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Building on NAPAs and NAMAs

- Many developing countries have now submitted their NAPAs (& NAMAs) to the UNFCCC
 - NAPAs = national adaptation programmes of action
 - Help LDCs build national capacities and identify priority adaptation projects with developmental benefits
 - NAMAS = nationally appropriate mitigation actions
 - These voluntary mitigation measures are consistent with a country's development strategy, and are meant to put it on a more sustainable development path
- These are a good starting point for addressing the climate challenge without compromising development objectives

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Adaptation and mitigation: seizing opportunities




- **Green growth**
 - ‘A way to pursue economic growth and development, while preventing environmental degradation, biodiversity loss and unsustainable natural resource use’
- **Green jobs**
- **Adaptation and mitigation as ‘opportunities’: development co-benefits**
 - e.g. renewable energy
 - e.g. clean technologies
 - e.g. forestry (REDD+)
 - e.g. agricultural productivity

Source: OECD (2010b)

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Adaptation and mitigation: developing synergies



- **Quite frequently adaptation and mitigation measures are congruent and can produce a double stream of benefits**
 - e.g. reduced tillage agriculture enhances carbon sequestration in soils while supporting soil moisture retention, thus increasing resilience to dry spells
 - e.g. sustainable reforestation may simultaneously enhance carbon stocks and, by offering new livelihood opportunities, enhance the adaptive capacity of local communities

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Adaptation and mitigation: ensuring complementarity



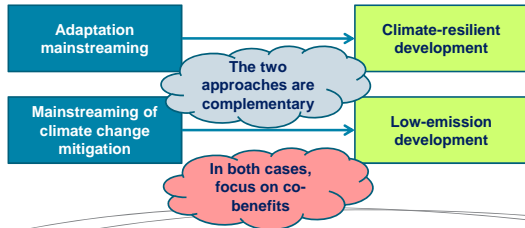
- **Mitigation should:**
 - Be compatible with adaptation policies and requirements
 - Rely on environmentally sustainable practices
 - e.g. unsustainable agrofuels may be a threat to food security, water availability and ecosystems
 - Not result in increased vulnerability to climate change
- **Adaptation should:**
 - Take emissions into account
 - e.g. agricultural intensification for improved food security may increase emissions from the use of fertilisers
 - e.g. the increased adoption of air conditioning to adapt to heat waves may result in increased emissions from fossil energy use

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Moving to climate-resilient, low-emission development



- Both climate-resilient development and low-emission development result from **mainstreaming** climate change in policymaking and planning



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References



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