

**IPCC Fifth Assessment Report  
Key Messages on Impacts  
(for Africa)**

- Evidence of warming over land regions across Africa, consistent with anthropogenic climate change, has increased (*high confidence*).
- Mean annual temperature rise over Africa, relative to the late 20th century mean annual temperature, is *likely* to exceed 2°C in the *Special Report on Emissions Scenarios* (SRES) A1B and A2 scenarios by the end of this century (*medium confidence*).
- A reduction in precipitation is *likely* over Northern Africa and the southwestern parts of South Africa by the end of the 21<sup>st</sup> century under the SRES A1B and A2 scenarios (*medium to high confidence*).
- African ecosystems are already being affected by climate change, and future impacts are expected to be substantial (*high confidence*).

- Climate change will amplify existing stress on water availability in Africa (*high confidence*).
- Climate change will interact with non-climate drivers and stressors to exacerbate vulnerability of agricultural systems, particularly in semi-arid areas (*high confidence*).
- Progress has been achieved on managing risks to food production from current climate variability and near-term climate change but these will not be sufficient to address long-term impacts of climate change (*high confidence*).
- Climate change may increase the burden of a range of climate-relevant health outcomes (*medium confidence*). CC is a multiplier of existing health vulnerabilities (*high confidence*), including insufficient access to safe water and improved sanitation, food insecurity, and limited access to health care and education.

- Conservation agriculture provides a viable means for strengthening resilience in agro ecosystems and livelihoods that also advance adaptation goals (*high confidence*).
- Despite implementation limitations, Africa's adaptation experiences nonetheless highlight valuable lessons for enhancing and scaling up the adaptation response, including principles for good practice and integrated approaches to adaptation (*high confidence*).
- Strengthened inter linkages between adaptation and development pathways and a focus on building resilience would help to counter the current adaptation deficit and reduce future maladaptation risks (*high confidence*).

- Given multiple uncertainties in the African context, successful adaptation depends on building resilience. Options for pro-poor adaptation/resilient livelihoods include (1) improved social protection, social services, and safety nets; (2) better water and land governance and tenure security over land and vital assets; (3) enhanced water storage, water harvesting, and post-harvest services; (4) strengthened civil society and greater involvement in planning; and (5) more attention to urban and peri-urban areas heavily affected by migration of poor people.
- Growing understanding of multiple interlinked constraints on increasing adaptive capacity is beginning to indicate potential limits to adaptation in Africa.
- Climate change and climate variability have the potential to exacerbate or multiply existing threats to human security including food, health, and economic insecurity, all being of particular concern for Africa .

- Of nine climate-related key regional risks identified for Africa, eight pose medium or higher risk even with highly adapted systems, while only one key risk assessed can be potentially reduced with high adaptation to below a medium risk level, for the end of the 21st century under 2°C global mean temperature increase above preindustrial levels (*medium confidence*). Key regional risks relating to shifts in biome distribution, loss of coral reefs, reduced crop productivity, adverse effects on livestock, vector- and water-borne diseases, undernutrition, and migration are assessed as either medium or high for the present under current adaptation, reflecting Africa's existing adaptation deficit.
- The assessment of significant residual impacts in a 2°C world at the end of the 21<sup>st</sup> century suggests that, even under high levels of adaptation, there could be very high levels of risk for Africa. At a global mean temperature increase of 4°C, risks for Africa's food security (see key risks on livestock and crop production) are assessed as very high, with limited potential for risk reduction through adaptation.