

Southern African Science Service Centre for Climate Change and Adaptive Land Management (SASSCAL) - Workpackage 2, Task 006: *Expanding the database for a robust regional climate change assessment and uncertainty analysis*

A profound and robust data base of quality controlled high-resolution climate projections has to be established to be able to estimate the potential impacts of future climate change on the water resources, agriculture, forestry and human livelihoods over the SASSCAL region (<http://www.sasscal.org>). Therefore already existing high-resolution climate change projections have to be identified and analyzed as an initial activity. But also the design and realization of new high-resolution climate change projections over the region has to be implemented in the process, as the rapid development in computational capacity also allows that more and more processes affecting the climate system are included in the projections. The resulting ensemble of high-resolution climate projections might serves as the basis for an assessment to quantify the degree of robust climate change in contrast to climate variability and inherit model uncertainty. Such an analysis can be a first step towards the identification of the probability of a given climate change signal.

In this subproject the focus is given on the expansion of the data base of quality controlled high-resolution climate change projections over the SASSCAL region. Furthermore, large emphasis is given to knowledge transfer and capacity building to facilitate the research institutions of the SASSCAL region in analyzing existing observations and climate change projections, running regional modelling systems and assessing the possible future scenarios and associated uncertainties.