

CASE STUDY: Global Warming - the forest from the trees

APPENDIX 1(b): The desired features of a Reference Climate Station

The definition of a Reference Climate Station (RCS) according to World Meteorological Organisation (WMO, 1993) is:

“a climatological station, the data of which are intended for the purpose of determining climatic trends. This requires long periods (not less than thirty years) of homogeneous records, where human-influenced environmental changes have been and/or are expected to remain at a minimum. Ideally the records should be of sufficient length to enable the identification of secular changes of climate”.

The WMO outlined the following set of basic criteria that should be considered when an RCS station is established (Collins et al., 1999). An RCS should:

1. be permanent and have a good chance of remaining open for the foreseeable future;
2. not be affected by urbanisation;
3. have trained observers and reliable instruments;
4. be subject to regular inspections and technical servicing;
5. have a long climate record;
6. have few significant relocations, changes of observing times, instruments and exposure, or observing techniques;
7. be subject to careful data quality control;
8. observe at least temperature and rainfall.

