

## PRECIS (Providing Regional Climates for Impacts Studies) – The Hadley Centre regional climate modeling system

<b>Description</b>	PRECIS is essentially a regional climate modeling system. It is based on the third generation of the Hadley Centre's regional climate model (HadRM3), together with user-friendly data processing and visualization interface. Its flexible design allows for applications in any region of the world. Like any other regional climate models, PRECIS is driven by boundary conditions simulated by General Circulation Models (GCMs). To facilitate the application, boundary conditions simulated by the Hadley Centre GCM experiments forced by four SRES marker scenarios are supplied with the software.
<b>Appropriate Use</b>	PRECIS can be used to generate finer-resolution, physically consistent regional climate projections when General Circulation Model (GCM) outputs are not sufficient to provide regional details as required by V&A assessment.
<b>Scope</b>	Any region in the world (with a minimum area of 5,000km by 5,000 km) given that sufficient observed data are available to validate model outputs
<b>Key Output</b>	(Typically) hourly climate variables at approximately 50 km horizontal resolution
<b>Key Input</b>	Modeling domain, details of the driving GCM experiment, length of integration, specification of output files
<b>Ease of Use</b>	Requires considerable expertise in climate modeling
<b>Training Required</b>	Considerable knowledge and experience required
<b>Training Available</b>	To be discussed with the Hadley Centre
<b>Computer Requirements</b>	A PC running the Linux operating system is required. It should have a minimum specification of a 1GHz processor, 500 Mb of memory, 60 Gb of disk space, and a tape drive to allow offline storage. A PC with a 1.4 GHz Athlon processor takes approximately 4-6 months to carry out a 30-year simulation.
<b>Documentation</b>	A Hadley Centre brochure on PRECIS is available at <a href="http://www.met-office.gov.uk/research/hadleycentre/pubs/brochures/B2001/precis.pdf">http://www.met-office.gov.uk/research/hadleycentre/pubs/brochures/B2001/precis.pdf</a> ; An information sheet on the status of PRECIS has been prepared and covers aspects such as availability, support and requirements of PRECIS is available at <a href="http://www.met-office.gov.uk/research/hadleycentre/models/PRECIS_info1_Feb02.doc">http://www.met-office.gov.uk/research/hadleycentre/models/PRECIS_info1_Feb02.doc</a>
<b>Applications</b>	Regional climate simulations have been performed with PRECIS in India, South Africa, and China.
<b>Contacts for Framework, Documentation, Technical Assistance</b>	The Regional Modelling Group at the Hadley Centre Met Office Hadley Centre FitzRoy Road, Exeter Devon, EX1 3PB United Kingdom Tel.: +44 1344 854938 Fax: +44 1344 854898 Email: <a href="mailto:precis@metoffice.com">precis@metoffice.com</a>
<b>Cost</b>	The software, together with a suite of supporting materials and boundary condition data, are provided free of charge to developing countries and countries with economy in transition. Other users will be expected to cover relevant costs.