

**A Continuation to Regional Climate Model Inter-comparison
for Asia (APN 2002-02)**

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Participating countries

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Brief introduction and background

As a continuation of Phase I, an 18-month simulation, Phase II of the Regional Climate Model Inter-comparison for Asia Project aims at a more systematic evaluation of the performance of RCMs through 10-year consecutive runs of 8 models. These results will provide more solid knowledge and further improvement of RCMs in Asia for users in their impact assessment.

Outline of activities conducted

The following activities are currently underway:

- Preparation of data for 10-year simulation from January 1989 to December 1998 used as initial and lateral boundary conditions;
- Preparation of 10-year station data for model validation;
- Development of methodologies for model inter-comparison including special and temporal mean and variability data in the entire region and 9 sub-regions;
- 10-year model runs of 8 models (currently on-going);
- Inter-comparison analyses;
- Re-analysis of 18-month run results, such as impacts of soil moisture initialisation, topography treatment and land surface schemes, etc.; and
- A summary workshop will take place at the end of April in Shanghai after the completion of simulations. Outcomes of model runs having the following aspects will be added to the inter-comparison in the summary workshop:
 - Surface variables (daily) including average temperature, maximum temperature, minimum temperature, total precipitation, sea level pressure, snow cover, surface wind, surface runoff, sensible heat, latent heat, total soil moisture, net radiation flux.
 - Upper level (5-day mean) including 5-day mean UV, geopotential height, temperature and relative humidity at 200 hpa and 850 hpa.

The programme of the workshop is mainly designed in 2 parts:

Part I: Scientific presentations of participating scientists on the analysis of model performance of phase II simulations, mainly on individual models. Re-analysis of phase I results will also be presented in addition to the main body of phase II.

Part II: Presentations of phase II results and inter-comparison analysis, and the plan for further analyses and publications.

Outcomes and products

- CD-ROMs containing model outputs of 10-year runs of 8 participating models and 10-year station data for model validation;
- A document of methodologies for RCM inter-comparison;
- A summary paper of inter-comparison analysis of the 10-year simulation; and
- Proceedings of the workshop containing scientific papers presented at the workshop.

Details of the outcomes and products will be reported in June 2003 as agreed with the APN Secretariat.

Future directions and follow-up work

- Publication of research papers; and
- Development of collection approaches for the 'group of models' results.