



Asia-Pacific Terrestrial Carbon Sink Dynamics in a Global Context

GCP (Global Carbon Project) Offices in Beijing, Tsukuba and Canberra
Chinese Academy of Sciences

Beijing, China, 13-15 March 2006

Scientific Steering Committee: Michael Raupach, Mingkui Cao, Takehisa Oikawa, Josep Canadell, Jiyuan Liu, Yoshiki Yamagata, Abha Chhabra

Background:

The terrestrial carbon sink of the Asian-Pacific is an important part of the global carbon cycle but is highly dynamic because of the land use and environmental changes driven by rapid economic growth. Extensive and intensive observations using various techniques and regional carbon budgets using different approaches have been conducted in the region, however, integrated regional carbon research that considers a region as a holistic entity in a global context is required for realistic quantification of the carbon sink dynamics and understanding of the regional-global linkage.

This workshop offers a venue to present and evaluate the state-of-the-art of the research on quantifying and managing the terrestrial carbon sink in the Asia-Pacific, particularly through synthesis of multi-scale observational data and modeling. It aims at promoting and incubating integrated, collaborative research in the region.

Workshop Topics:

- 1) **Multi-scale data assimilation and data-model fusion.** Synthesis of multi-scale observational data and assimilation of the data into mechanistic ecosystem models for quantifying human and natural perturbations to terrestrial ecosystem carbon cycle;
- 2) **Dynamic regional carbon budget.** Quantifying, attributing and projecting spatio-temporal patterns of the terrestrial carbon and the regional-global linkage; identifying and quantifying contribution of land use and environmental changes.
- 3) **Adaptive carbon management.** Exploring ecosystem carbon management options to enhance the terrestrial carbon sink; estimating the potential of the terrestrial carbon sequestration through improved ecosystem management; and assessing the ecological and economic consequences.

Products:

A **synthesis publication** will be written on the quantification of the Asian-Pacific terrestrial carbon sink. A **collaborative research program** will be discussed on dynamic regional carbon budget through synthesis of multi-scale observational data and mechanistic modeling.

The Scientific Committee of GCP Beijing office will have the first meeting in the workshop.