

GEWEX Land–Atmosphere Research: An Outlook

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Abstract The Global Energy and Water EXchanges (GEWEX) project of the World Climate Research Programme (WCRP) has been focusing on Land–Atmosphere Research since the early 1990s. Whilst in the early days there was a strong emphasis on the use of global/Earth observational data sets, in later years the modelling of atmospheric processes and land–atmosphere interactions became increasingly important. The Global Land Atmosphere System Studies (GLASS) panel, in particular, has contributed extensively to land surface modelling activities leading to successful efforts such as the Project for the Intercomparison of Land-Surface Parameterization Schemes (PILPS) for offline point-scale evaluation; and the Global Soil Wetness Project (GSWP-2) for the large global scale. Given the new research challenges in the coming years, the emphasis will be on land–atmosphere coupling, model data fusion and benchmarking.

Key words land–atmosphere coupling; benchmarking; model data fusion; water; land; modelling; intercomparison