In the present study, a simple yet effective approach is proposed, with the purpose of producing probabilistic results of climate change over China for the middle and end of the 21st century under the SRES-A1B emission scenario. Data from 28 Coupled Atmosphere-Ocean General Circulation Models (AOGCMs) are used. The methodology consists of ranking firstly the 28 models, based on their ability to simulate climate over China in terms of two model-evaluation metrics. Different weights were then given to the models according to their performances in present-day climate. Results of the evaluation for the current climate show that five models that have relatively higher resolutions, namely INGV_ECHAM4, UKMO_HADCM3, CSIRO_MK3.5, NCAR_CCSM3.0 and MIROC3.2 (hires), perform better than others over China. Under the A1B scenario, surface air temperature is projected to increase significantly for both middle and end of the 21st century, with larger magnitude over the north and in winter. For instance, in winter for the period 2070-2099 there is a near 100% probability across most of China for increases above 3°C. There are also significant increases in rainfall in 21st century under the A1B scenario, especially for the period 2070-2099.

**Keywords:** Probabilistic projections, AOGCMs, China