

EGU2020-6231

<https://doi.org/10.5194/egusphere-egu2020-6231>

EGU General Assembly 2020

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## Climate services for the development plan of the Yellow River Basin in China

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The Yellow River Basin is the place where Chinese civilization originated, known as the mother river of the Chinese nation. The Yellow River originates from the Bayan Kara Mountain in the Qinghai Tibet Plateau. It flows through Qinghai, Sichuan, Gansu, Ningxia, Inner Mongolia, Shanxi, Shaanxi, Henan and Shandong provinces, with a total length of 5464 kilometers, a drainage area of 795000 square kilometers and a population of 110 million. It has an important position in China's economic development. Now the development plan of the Yellow River Basin has been promoted to the level of national strategy. In order to better serve the economic development planning of the Yellow River Basin, the climate characteristics and climate risks of the upper, middle and lower reaches of the Yellow River Basin were analyzed. The topography of the Yellow River Basin is high in the West and low in the East, with great difference in topography and complex climate. It is sensitive to climate change and prone to drought and flood, extreme drought and rainstorm and flood. With global warming, the upstream tends to warm and humid, which has an important impact on the ecosystem, the middle and lower reaches tend to warm and dry, which has an important impact on pollution control and flood control. The impact of climate change must be considered in the development plan of the Yellow River Basin.