



## **Inductive analysis about the impact of climate warming on regional geomorphic evolution in arid area**

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**Abstract:** Climate change on the surface of earth will produce a chain reaction among so many global natural environmental elements. Namely, all the issues will be affected by the climate change, just like the regional water environment, formation and development of landscape, plants and animals living environment, the survival of microorganisms, the human economic environment and health, and the whole social environment changes at well. But because of slow frequency of climate change and it is volatility change, its influence on other factors and the overall environmental performance is not obvious, and its reflection performs slowly. Using regional weather data, we calculated qualitatively and quantitatively and did analysis the impact of climate warming on Xinjiang (a province of China) geomorphic evolution elements, including the ground weather, erosion rate, collapse change, landslide occurrences changes and impact debris flow, combining the field survey and indoor test methods.

**Key words:** climate change; the geomorphic induction; landscape change in river basin; Xinjiang