



Impact of land topography on runoff and soil erosion: an experimental approach

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Background

- Soil erosion threatens environmental sustainability and agricultural productivity, particularly impacting regions relayed on land resources.
- Limited understanding of how topography and vegetation influence farming practices driven erosion, especially under controlled experimental conditions, leads to challenging on developing soil and water conservation managements.

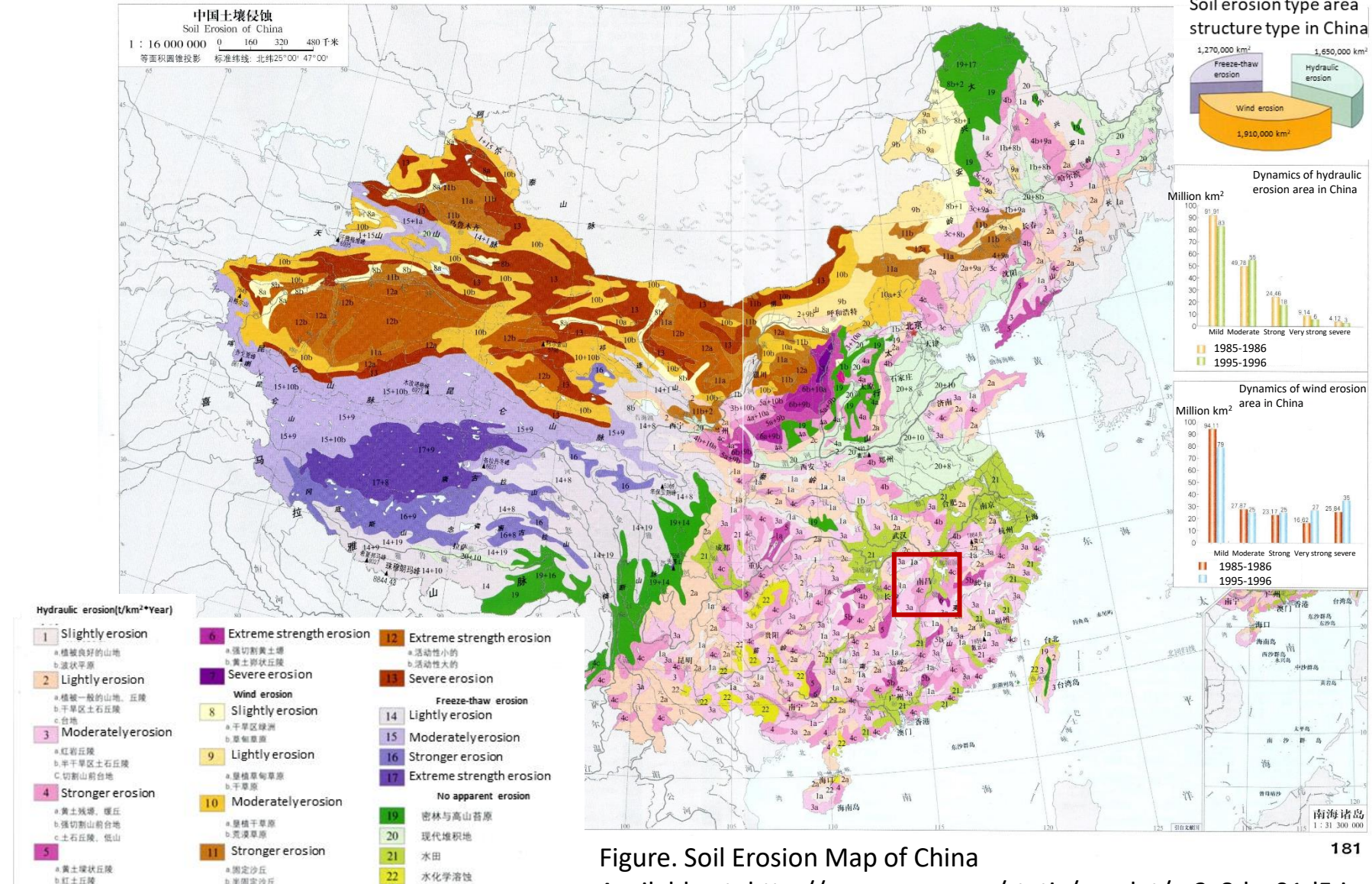


Figure. Soil Erosion Map of China

Available at: http://www.osgeo.cn/static/maplet/m3c8d_s01d5.jpg

Aim: Assess how different cultivation practices affect soil erosion by analyzing precipitation, runoff, sediment loss, and soil moisture.

Study area and experimental environment

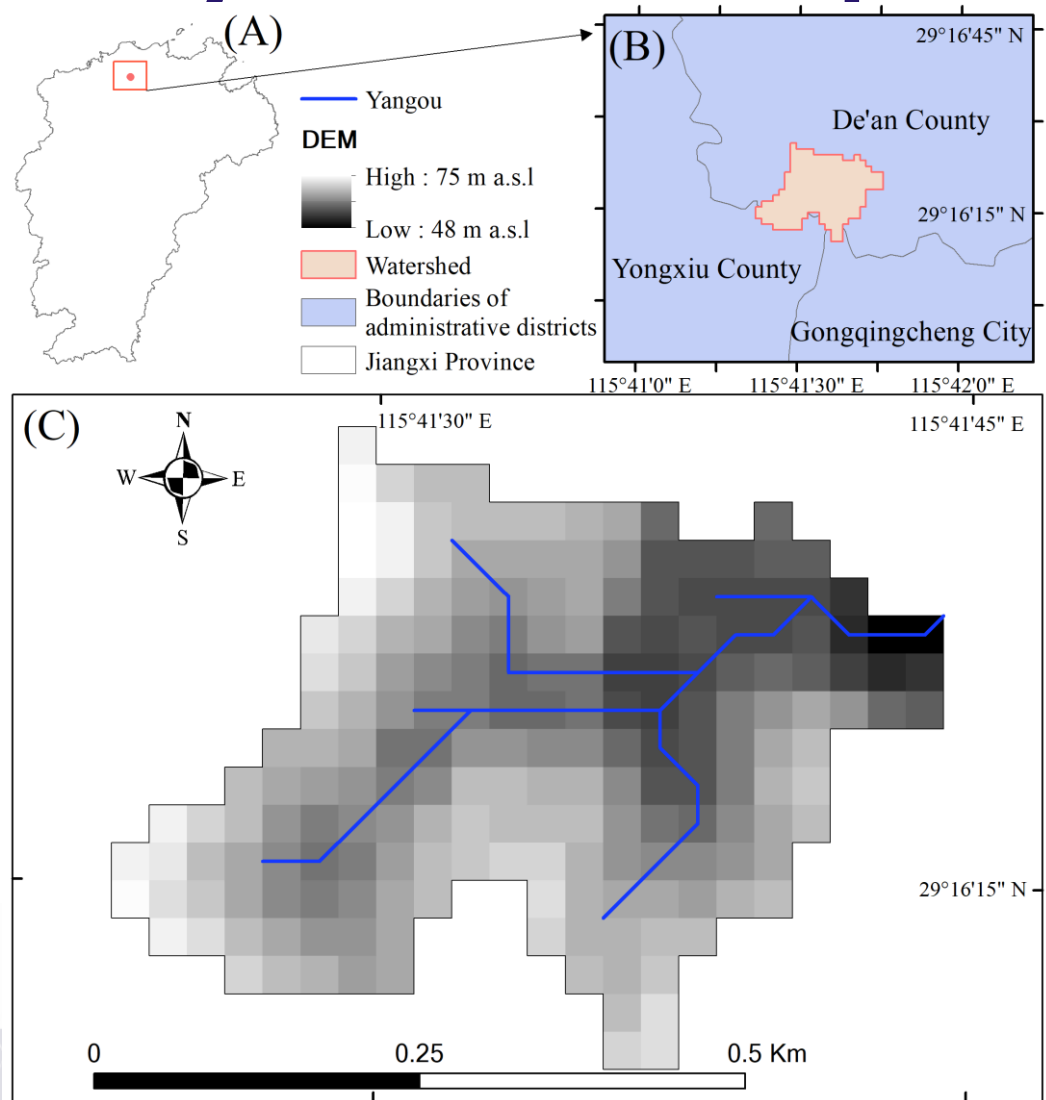


Figure. The study area



Figure. (A) Overall view of the experimental environment; (B) Runoff plot without any vegetation cover; (C)-(F) Runoff plots covered with *Trifolium repens*, typical terrace, cross-slope tillage, and down-slope tillage, respectively.



(B) Figure. (A) Measurement of the runoff and collection of the wet sediment; (B) EM50 automatic monitoring station for Soil moisture content measurement settled in the runoff plot.

Thank for your attention!
More results are displayed on the poster!

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