



Figure S1. Agricultural planting patterns in rocky desertification areas



Figure S2. Vegetation and rocky desertification in three sampling sites

(a) Vegetation in the Basin, from left to right is LRD, MRD and SRD. The same below.

LRD: *Eucalyptus* forest with short planting years and single community structure. The rock bareness rate was ~35%.

MRD: Herbs, dominated by *Miscanthus*. The rock bareness rate was ~55%.

SRD: Herbs, herb of Spanishneedles (*Bidens bipinnata* Linn.) and Canadian fleabane (*Conyza canadensis* (Linn.) Cronq.) was dominant specie. The rock bareness rate was >70%.



(b)vegetation in the Slope

LRD: Artificially planted cypress forests, with high canopy density. The rock bareness rate was ~30%.

MRD: Shrub, dominated by Purpus Priver (*Ligustrum quihoui Carr.*) and Euphorbiae Pekinensis Radix (*Euphorbia pekinensis Rupr.*). The rock bareness rate was ~50%

SRD: Ferns are the main species. The rock bareness rate was >70%.



(c) vegetation in the plateau, from left to right is LRD, MRD and SRD

LRD: Forest, the main vegetation types are *Ligustrum quihoui* Carr. and Chinese mugwort (*Artemisia argyi* H. Lévl.) & Vaniot. The rock bareness rate was ~30%.

MRD:

SRD: Herbs, dominated by *Miscanthus* with a small amount of *Conyza canadensis* (Linn.) Cronq. The rock bareness rate was >70%.