



## **Land tenure reform and grassland degradation in Inner Mongolia, China**

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Since the start of the land tenure reform in the pastoral areas of China in the 1980s, grassland use rights have increasingly been assigned to individual households and subsequently more grasslands have been in private use. However, in the same period, most of the grasslands in China have experienced degradation. The question that this paper tries to address is whether the land tenure reform plays a significant role in grassland degradation. It is answered by an empirical analysis of the impact of land tenure reform on the changes in grassland condition, using data from 60 counties in Inner Mongolia between 1985 and 2008. Grassland condition is presented by grassland quantity and quality using spatial information based on remote sensing. The timing of the assignment of grassland use rights and the timing of the actual adoption of private use by households differ among counties. These timing differences and differences in grassland condition among counties allow disentangling the impact of the land tenure reform. A fixed effects model is used to control for climate, agricultural activity and the time-invariant heterogeneity among counties. The model results show that the private use of grasslands following the land tenure reform has had significantly negative effects on grassland quality and quantity in Inner Mongolia. Moreover, the negative effects did not disappear even after several years of experience with private use. In conclusion, our analysis reveals that the land tenure reform, namely privatisation of grassland use rights, is a significant driver of grassland degradation in Inner Mongolia in a long term, which presents “a tragedy of privatisation”, as opposed to the well-known “tragedy of the commons”.