



Vegetation Restoration, Soil Erosion and Sediment Yield on the Loess Plateau After “GFG” Project

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Soil erosion is an increasing environmental problem globally, and the Chinese Loess Plateau suffers the most severe soil erosion in the world. To control soil and water losses and improve ecosystem of the Loess Plateau, significant efforts have been made since the 1950s, especially the implementation of “Grain for Green (GFG)” policy in 1999 on a large scale. After about 15 years of “GFG” implementation, vegetation restored evidently, and soil erosion and sediment yield reduced markedly on the Loess Plateau region. However, for the larger-scale afforestation on the Loess Plateau, the relationship between afforestation and soil water carrying capacity, the sustainability of afforestation and ecosystem should be considered. Although the comprehensive practices have achieved remarkable soil erosion control, soil erosion is still likely to be very severe during heavy rainstorms, especially in gully slope. Attention should be paid in strengthening the storage and drainage measures in the inter-gully to prevent gravitational erosion by reducing the slope runoff flowing down the gully. Proper and rational control measures and management methods in different sections must be investigated further and focused on preventing soil erosion at the sources rather than intercepting sediment with potential risk to the watershed.