



Case Studies Due to Invasive Plants on the Vegetation Retardation Succession in Landslide Areas of Shimen reservoir

Wen-Cheng Huang and Shin-Hwei Lin

Department of Soil and Water Conservation, National Chung Hsing University, Taichung 402, Taiwan
(ken697201@gmail.com)

The steep terrain and the fragile geology in Taiwan have caused large landslides in the reservoir watershed in the season with typhoons and heavy rain. Management, restoration strategies, and vegetation succession mechanism of landslide areas are distinct due to different attributes and locations of landslide areas.

Aiming at 50 landslide areas in Shihmen reservoir watershed from 2004 to 2012, because of the Typhoon Aere occurred in 2004, this study clusters with the primary vegetation data and ortho image, and discusses the primary vegetation type in landslide areas. The successive management engineering in the watershed and the case data in Sule and Shaluntzu are analyzed the vegetation development and plant competition to evaluate the plant succession mechanism and the vegetation restoration results for the reference of successive design of vegetation engineering in landslide areas. The result shows that Shaluntzu area used invasive plants Rhodesgrass and Rhodesian kudzu when slope land vegetation restoration and secondary planting seedlings. Rhodesian kudzu has property of binding plant and causes for vegetation death. Currently, cutting down Rhodesian kudzu to reduce its interference is the most effective prevention and management method. Carefully choose the pre-grass species for vegetation in the have to carry out artificial vegetation restoration area, and continue to monitor the status currently. It would increase biodiversity for slope land due to select the indicator species of vegetation restoration and know successional trends of invasive plant species.