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Study on the Strategies for the Soil and Water Resource Con-servation of Slopeland in Taiwan in Response to the Extreme Climate

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Global climate change results in extreme weather, especially ex-treme precipitation in Taiwan. Though the total amount of precipi-tation remains unchanged, the frequency of rainfall return period increases which affects slopeland and causes sediment disaster. In Taiwan, slopeland occupies about 73% of national territory. Under harsh environmental stress, soil and water conservation of slope-land becomes more important. In response to the trends of global-ization impacts of climate change, long term strategic planning be-comes more necessary. This study reviewed international practices and decision making process about soil and water conservation of slopeland; and conducted the compilation and analysis of water and soil conservation related research projects in Taiwan within the past five years. It is necessary for Taiwan to design timely adaptive strategies about conducting the all-inclusive conservation of na-tional territory, management and business operation of watershed based on the existing regulation with the effects of extreme weather induced by climate change and the changes of social-economic en-vironments. In order to realize the policy vision of "Under the premise of multiple uses, operating the sustainable business and management of the water and soil resources in the watershed through territorial planning in response to the climate and so-cial-economic environment change".

This study concluded the future tasks for soil and water con-servation: 1.Design and timely amend strategies for soil and wand water conservation in response to extreme weather. 2. Strengthen the planning and operating of the land management and integrated conservation of the water and soil resources of key watershed. 3. Manage and operate the prevention of debris flow disaster and large-scale landslide. 4. Formulate polices, related regulations and assessment indicators of soil and water conservation. 5. Maintain the biodiversity of the slopeland and reduce the ecological footprint. 6. Conduct soil and water conservation research according to the importance and urgency of policies. 7. Implement the international cooperation, technology communication, talent cultivation, and integrated education and promotion.