

以國際永續觀點啟發國內坡地水土資源保育思維之研究

黃文政^[1*] 陳銘漢^[2] 陳建翰^[2] 李宜映^[2]

摘要 因全球氣候變遷，引致發生極端氣候、雖降雨總量約略不變，卻改變其發生型態，高重現期距降雨發生的機率愈來愈頻繁，衝擊山坡地土壤流失、造成洪水與土石流發生。在此嚴峻的環境應力下，山坡地水土資源保育顯得相形重要。過去水土保持局致力於山坡地管理、集水區保育治理、土石流防災等水土保持工作，已建立嚴謹管理及應變制度，因應國際化趨勢更應有長期策略規劃，本研究以現行制度為基礎，水平觀測國際於坡地水土資源保育、監測、治理、防治等措施與決策思維，同時盤整現行坡地資源配置情形，思考臺灣在氣候變遷引致極端氣候及社會經濟環境改變的外營力下，執行全方位國土規劃、集水區經營與管理等調適策略與作為，期對管理單位於政策面、技術面及執行面之短、中、長期策略與技術研發方向等能有所裨益，以落實「因應氣候變遷與社經環境改變，在多元利用的前提下，透過國土規劃從事集水區水土資源永續經營與管理」之願景目標。

關鍵詞：氣候變遷、山坡地、集水區經營、坡地保育、永續利用。

The Use of International Perspective of Sustainability as the Inspiration for the Thinking of Land & Water Resources Preservation of Domestic Slopes

Wen-Cheng Huang^[1*] Ming-Han Chen^[2] Chien-Han Chen^[2] Yi-Yang Lee^[2]

ABSTRACT Global climate changes result in the frequent occurrences of harsh weather condition in Taiwan, such as more frequent heavy rainfall of return periods and typhoon occurrences, which leads a higher chance of incidence of landslide, flooding and soil erosion. Under such an extreme environmental stress, conservation of soil and water resources has been a very important subject. Since the past, Soil and Water Conservation Bureau, Executive Yuan has been committed to soil and water conservation such as the slopelands management, conservation strategies for watershed, debris flow disaster prevention and response. Whereas, a long-term strategic planning is still required in order to provide a timely response to any international trends. This study, based on the use of the existing systems, conducts the observation of foreign measures and policy and management of soil and water resources, the analysis of the adaptive strategy and accomplishments in Taiwan, external factors resulting from climate changes such as extreme weathers as well as various changes upon social-economic environments. The result can be used to short-term, intermediate and long-term strategic direction on the dimensions of policy, technology and implementation, in order to promote and fulfill the sustainable development of domestic soil and water resources of mountain slopes and catchment areas in Taiwan through national land planning, on the premise of multiple land use and in response to the climate and social-economic changes.

Key Word: climate change, slopelands, catchment area, slopelands conservation, sustainable development.

[1] 行政院農業委員會水土保持局綜合企劃組工程師（* 通訊作者 E-mail: ken697201@gmail.com）
Assistant Engineer, Planning Division, Soil and Water Conservation Bureau, Council of Agriculture, Executive Yuan.

[2] 臺灣農業科技資源運籌管理學會副研究員及研究員
Research Fellow, Associate Research Fellow, Taiwan Agricultural Science and Technology Resources Logistics Management Association