暖化環境下之災害評估及調適研究

Study on Disaster Assessment and Adaptation in a Warming Scenario

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摘要

因應氣候變遷,我國政府積極推動「溫管法」、「災害防救基本計畫」及「臺灣水續發展目標」等相關工作以資因應。災防科技中心長期發展氣候變遷災害風險評估技術,提供相關技術、知識及服務需求。過去氣候變遷風險圖受限於使用單一大氣環流模式(GCM),故不確定性高;2019年考量使用者規劃未來調適的需求,運用多模式進行世紀中淹水災害風險評估。此外,考量環境變遷對災害衝擊的影響、分析土地利用變化對淹水災害衝擊的影響,以提供使用者更多資訊以考量未來調適規劃。透過氣候變遷災害風險調適平台網頁(簡稱 Dr. A 網站),提供使用者更多元之氣候變遷災害風險評估成果,並於 2019年度完成 11 場推廣活動。希冀透過去年度成果,提供國內新的氣候變遷衝擊及風險評估技術,相關氣候變遷災害風險知識及服務,提升我國未來對抗氣候變遷衝擊之能量。

關鍵詞:氣候變遷、調適策略、風險圖、環境變遷、氣候變遷災害風險調適平台

Abstract

Taiwan government actively promotes "Greenhouse Gas Reduction and Management Act", "Plans of Disaster Prevention and Protection", and "Taiwan Sustainable Development Goals" to response the climate change. National Science and Technology Center for Disaster Reduction (NCDR) long-term develops disaster assessment method and provides related technologies, knowledge, and service in climate change. Risk maps, in past, were limited by using single atmospheric circulation model (GCM), it induced high uncertainty in the risk maps. This year, we develop multi-GCMs assessment method to reduce single model uncertainty, and establish flooding risk maps in the middle century to response user's needs. Considering the environmental change impacts in disaster, in addition, we analyze the influence between land use change and flood disaster. To provide user with more information to recognize adaptation plans in

future. Dr. A, a website, supports diversified disaster risk assessment results in climate change. Our team completed 11 promotional activities for Dr. A in this year. It is hoped that through the results of last year, we will provide new domestic climate change impact and risk assessment technologies, and related knowledge and services on climate change disaster risk, so as to enhance energy to combat climate change impacts in future.

Keywords: climate change, adaptation strategy, risk map, environmental change, Dr. A.