

# 具擴大灌溉服務潛力推動區域評估因子研討

## Discussion on Evaluation Factors for Regions with Potential to Promote Expanded Irrigation Services

	農業部農田水利署		禾騰技術股份有限公司
正工程司	科長	組長	執行長
邱亭璋	張光耀	孫維廷	黃建霖
Ting-Wei Chiu	Kuang-Yao Chang	Wei-Ting Sun	Chien-Lin Huang

### 摘 要

具擴大灌溉服務潛力推動區域評估因子設定之目的，為面對大範圍未辦理擴大灌溉服務推動之區域，透過初步調查及訪談結果，可透過權重方式進行擴大灌溉服務示範區之評估及篩選，藉以擬定推動優先順序，並進行後續擴大灌溉服務方案推動之依據。

各潛在可推動擴大灌溉服務區域之相關環境或現實條件，可分為水源條件、農地及作物條件、設施條件及在地條件等四大類別，其中，水源條件之相關評估因子包含水量、水質、距離、重力及水資源競用等，可透過圖資分析及現勘調查，了解水源點及潛在受益農地之環境現況；農地及作物條件之相關評估因子為各灌溉分區之適作農地面積與集中情形，以及作物相關之耕作事實、作物耗水量、作物產銷等，可透過圖資分析了解各灌溉分區適作農地面積，並透過現勘調查，了解潛在受益農地作物種植現況；設施條件之相關評估因子包含設施現況、需求迫切性、用地取得等，可依據圖資分析及現勘調查、訪談，了解既有設施、改善急迫性及工程用地範圍；在地條件之相關評估因子包含用水組織、農民需求、機關意願等，需透過現勘調查及訪談等方式，深入了解在地農民、意見領袖、機關團體對於擴大灌溉服務工作之意願及需求。

關鍵詞：擴大灌溉服務、評估因子

### Abstract

The purpose of setting evaluation factors for regions with potential to promote expanded irrigation services is to address the large areas where such services have not yet been implemented. Based on preliminary surveys and interview results, a weighted scoring system can be applied to evaluate and screen candidate demonstration areas. This provides a basis for establishing promotion priorities and guiding subsequent implementation of expanded irrigation service plans.

The conditions for identifying regions with potential for promoting expanded irrigation services are based on relevant environmental or practical considerations. These can be

categorized into four major groups: water source conditions, farmland and crop conditions, infrastructure conditions, and local conditions.

- Water source conditions include factors such as water availability, water quality, distance, gravity-fed feasibility, and water use competition. These can be assessed through geospatial analysis and field surveys to understand the current state of water sources and the surrounding agricultural areas.
- Farmland and crop conditions include factors such as the area and clustering of suitable farmland in each irrigation subregion, as well as actual cultivation patterns, crop water requirements, and crop marketing/production systems. Geospatial analysis helps identify suitable farmland areas, while field surveys help assess current cropping practices in potential beneficiary areas.
- Infrastructure conditions cover the existing condition of irrigation facilities, urgency of improvement needs, and land acquisition feasibility. These factors are assessed through map analysis, site surveys, and interviews to understand the existing infrastructure, the necessity of improvements, and land availability for engineering works.
- Local conditions include factors such as the presence and strength of water user organizations, farmers' expressed needs, and institutional willingness. These must be explored through field investigations and stakeholder interviews to understand local farmers', opinion leaders', and agency representatives' willingness and support for promoting expanded irrigation services.

Keywords: Expanded Irrigation Services, Evaluation Factors