

# Improving groundwater management to enhance agriculture and farming livelihoods in Pakistan



## Key details

### Location

Pakistan

### Duration

**Start** Oct 2016

**End** Jun 2021

### Budget

AUD 2,050,005

### Commissioned organisation

Charles Sturt University

### Partners

Charles Sturt University; Balochistan Irrigation Department; Balochistan University of Information Technology, Engineering and Management Sciences; International Center for Agricultural Research in the Dry Areas; International Waterlogging and Salinity Research Institute ; Mehran University of Engineering and Technology; NED University of Engineering and Technology; Pakistan Council for Research on Water Resources; PMAS Arid Agriculture University Rawalpindi ; Punjab Irrigation Department; Sindh Agricultural University; Sindh Irrigation Department; University of Agriculture Faisalabad

### Project Leader

Jehangir Punthakey - Charles Sturt University

### Program

Water

### Project code

LWR/2015/036

## Overview

**This project aimed to build capacity of researchers, farmers, farming communities and relevant government and non-government agencies to improve groundwater management in ways that enhance farming family livelihoods in Pakistan. Building capacity means building skills, knowledge and confidence, and providing relevant tools and processes.**

Pakistan's population of over 180 million relies heavily on agriculture, which contributes 21 percent of the country's Gross Domestic Product and more than 40 percent of its employment. Around 95 percent of the country's water consumption is used for agriculture, and the pressure on available resources is increasing.

Surface water supply is variable, particularly for farmers at the tail end of canals and distributaries in Sindh and Punjab provinces. Dependence on

groundwater has increased with over one million tube wells in use. Groundwater decline and spread of salinisation is rendering fertile lands unusable. Electricity subsidisation, inefficient irrigation practices and lack of regulation exacerbates groundwater over-extraction. Lack of monitoring, awareness, and other socio-political constraints compound the challenge of pursuing productive and sustainable groundwater use.

This project was a collaboration through partnerships to address the complexity of achieving effective and fair groundwater management. Building capacity means building skills, knowledge and confidence, and providing relevant tools and processes.

## Project outcomes

- Farmers, farming organisations and partner non-government organisations have started introducing improved groundwater management practices.
- Government agencies in Pakistan have started developing/ demonstrating improved groundwater-related planning, monitoring, management strategies, options and policies.
- Relevant provincial-level government agencies, non-government organisations and farming organisations have developed effective partnerships for ongoing discussion on groundwater management issues and solutions.



**ACIAR**

