



## MANCHAR LAKE: GENDER IMPACT AND IMPLICATIONS FOR WATER GOVERNANCE

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Scientific and Industrial Research Organisation (CSIRO)

In collaboration with:

Pakistan Council of Research in Water Resources  
(PCRWR)

Sindh Irrigation Department (SID)

## PAKISTAN: THE WATER CONTEXT

- ❖ Pakistan is a semi-arid country with most of its water supply coming from the Indus River system
- ❖ It has the largest contiguous (adjoining) irrigation system which enables the country to have a mixture of agricultural and pastoral production
- ❖ Estimated population: 194 million
- ❖ The country will be facing water scarcity in 2030
- ❖ Water storage capacity is 30 days (compared to 600 days in Australia)

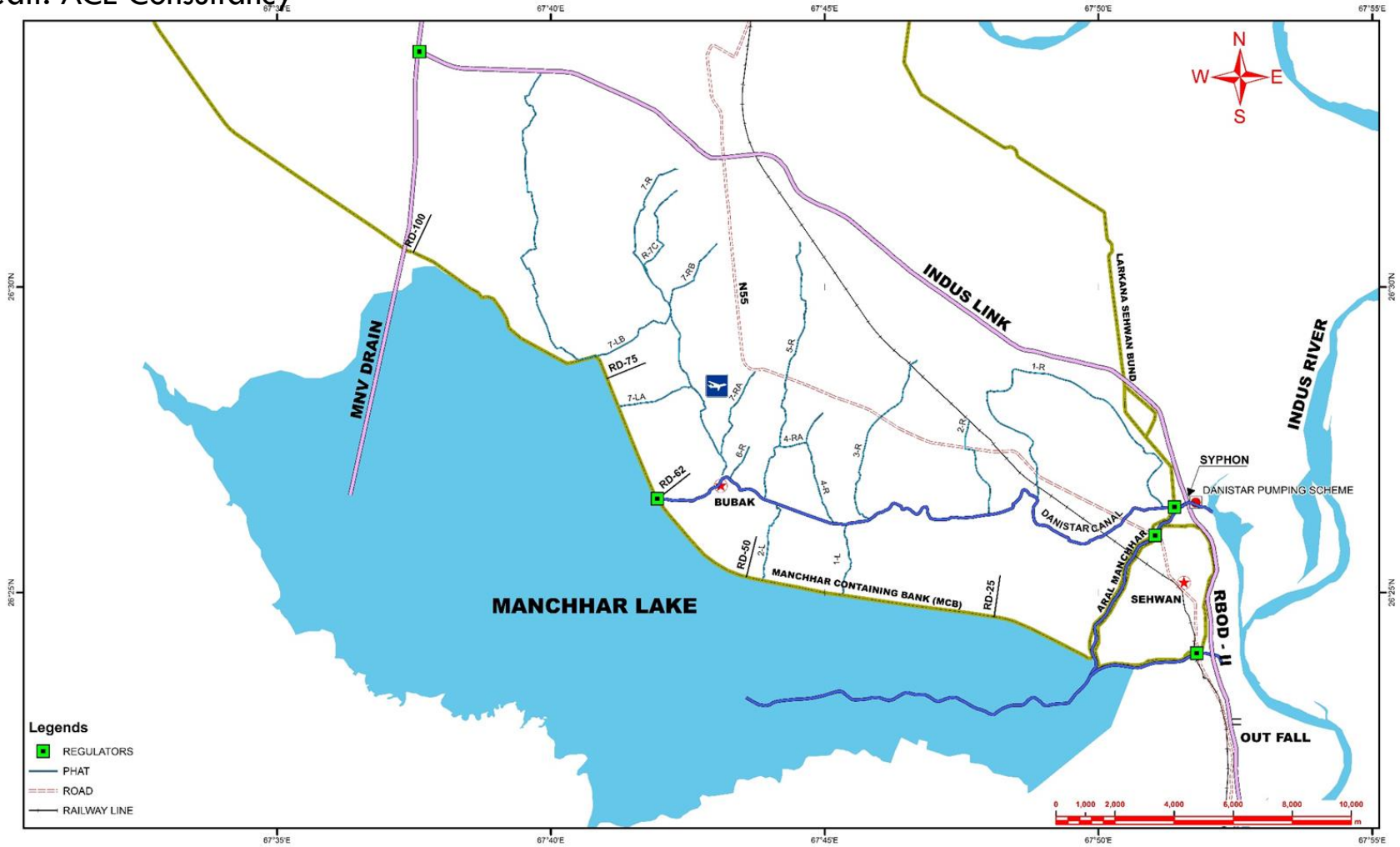
## PAKISTAN'S GENDER DIMENSIONS OF WATER SCARCITY

- ❖ Due to socially constructed gender division of labour, typically women have a close ecological relationship with water through their productive and reproductive labour
- ❖ 2012-2013 Pakistan Labour Force Survey: Approximately 75% of total female employment depends upon agriculture and 84% of the women employed in the country are in the rural areas





Credit: ACE Consultancy



## PURPOSE OF MANCHAR LAKE RESEARCH

- ❖ To build gender awareness and qualitative research skills of one of the CSIRO's SDIP partners, the Pakistan Council of Research in Water Resources (PCRWR)
- ❖ To understand the linkages between environmental degradation and gender impact, and
- ❖ to use Manchar Lake as a case study of how micro-level gender impact and outcomes are related to the macro-level of national and provincial decisions about water and irrigation





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## MANCHAR LAKE: BEFORE AND AFTER

### When the lake was fresh

- ❖ Women had greater mobility, able to save up for daughters' dowries
- ❖ Earned enough money to perform the hajj or umrah
- ❖ Prosperous, with 20-25 fish wholesalers coming in to purchase
- ❖ Rich, diverse agriculture and diet

### Current situation

- ❖ Those families with the means have relocated elsewhere
- ❖ Men go to Karachi or other places to do contract fishing or as labourers
- ❖ Early marriage or polygamy due to poverty
- ❖ Higher maternal mortality
- ❖ Poor health due to lake water quality – waterborne diseases common







## CURRENT PROPOSALS AND PLANS

### ❖ Short-term

- ❖ Shunting water
- ❖ Establish monitoring system for water quality

### ❖ Long-term

- ❖ Expedite the construction of RBOD-II so that effluent can be diverted to the Arabian sea
- ❖ Rehabilitation of existing canal systems



## SUGGESTIONS FROM NATURAL INFRASTRUCTURE PERSPECTIVE

- ❖ **Priorities for the villagers: restoration of the area's flora and fauna**
  - ❖ This will require rehabilitation of the Manchar lake water quality (i.e. from saline to freshwater)
- ❖ **Improving WASH and waste facilities**
- ❖ **Dilution/ 'flushing' the lake**
  - ❖ Currently an upstream lake, Hamal, is withholding significant amount of freshwater
- ❖ **Any others?**

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- ❖ For more information about SDIP <https://research.csiro.au/sdip/gender/>