

# CSIRO Indus SDIP Project Pakistan Publications 2014 – present

## Journal papers

- Ahmad MD, M Kirby, MJM Cheema (2019). Impact of Agricultural Development on Evapotranspiration Trends in the irrigated districts of Pakistan: Evidence from 1981 to 2012. *Water International* 44(1):51-73, <https://doi.org/10.1080/02508060.2019.1575110>.
- Ahmad MD, J Stewart, G Podger (2018) Modelling the surface water allocations and deliveries in the world's largest continuous irrigation system, Indus Basin Pakistan. *Geophysical Research Abstracts*. Vol. 20, EGU2018-1633.
- Charles SP, QJ Wang, M Ahmad, D Hashmi, A Schepen, G Podger (2018) Seasonal streamflow forecasting in the upper Indus Basin of Pakistan: an assessment of methods. *Hydrology and Earth System Sciences*. 22: 3533-3549, <https://doi.org/10.5194/hess-22-3533-2018>, 2018.
- Khaliq T, D Gaydon, MD Ahmad, MJM Cheema, U Gull (2019) Analyzing crop yield gaps and their causes using cropping systems modelling – A case study of the Punjab rice-wheat system, Pakistan. *Field Crops Research*. 232: 119-130. <https://doi.org/10.1016/j.fcr.2018.12.010>.
- Kirby M, MD Ahmad, M Mainuddin, T Khaliq, MJM Cheema (2017) Agricultural production, water use and food availability in Pakistan: Historical trends and projections to 2050. *Agricultural Water Management*. 179: 34-46. <http://dx.doi.org/10.1016/j.agwat.2016.06.001>, 2017.
- Zheng H, F Chiew, S Charles, G Podger (2018) Future climate and runoff projections across South Asia from CMIP5 global climate models and hydrological modelling, *Journal of Hydrology: Regional Studies*. 18: 92 – 109, <https://doi.org/10.1016/j.ejrh.2018.06.004>.

## Research reports

- Charles SP (2016) Hydroclimate of the Indus - synthesis of the literature relevant to Indus basin hydroclimate processes, trends, seasonal forecasting and climate change. CSIRO Land and Water, Australia. 48pp. <https://doi.org/10.4225/08/58518b81ba769>
- Charles SP, FHS Chiew, H Zheng (2016) Climate change and water in south Asia - Overview and literature review. CSIRO Sustainable Development Investment Portfolio project. CSIRO Land and Water, Australia. <https://doi.org/10.4225/08/58518b8bd697c>
- CSIRO (2019) Preliminary climate assessment and scoping note (revised): A CSIRO contribution to support the development of the proposed Sindh Water and Agriculture Climate Resilience Project. CSIRO Land and Water, Australia.
- Grigg N, MD Ahmad, S Imran, G Podger, M Kirby, M Colloff (2018) Water quality in the Ravi and Sutlej Rivers, Pakistan: a system view. CSIRO, Australia. <https://doi.org/10.4225/08/5a5654a6d5826>
- Imran S, LN Bukhari, M Ashraf (2018) Spatial and Temporal Trends in River Water Quality of Pakistan (Sutlej and Ravi) 2018. Pakistan Council of Research in Water Resources (PCRWR), pp. 83. [http://www.pcrwr.gov.pk/Publications/Water%20Management/CISRO%20Report\\_Final.pdf](http://www.pcrwr.gov.pk/Publications/Water%20Management/CISRO%20Report_Final.pdf)
- Kirby M, MD Ahmad (2014) Water resources management in developing countries: the role of hydrology-economic modelling. CSIRO Land and Water Flagship, Australia. 38pp. <https://doi.org/10.4225/08/58542caf119b2>
- Kirby M, MD Ahmad (2016). Time series (1980-2012) crop areas in the districts and canal commands of Pakistan. CSIRO Land and Water, Australia. <https://doi.org/10.4225/08/58518b77b0a63>
- Punthakey JF, W Schmid, G Hodgson, MD Ahmad, GP Podger, M Basharat (2017) Regional groundwater model of the Indus Basin, Pakistan: hydrogeological analysis of borelogs. Sustainable Development Investment Portfolio (SDIP) Project. CSIRO, Australia. 230 pages. <https://doi.org/10.4225/08/59a5b9cd1199d>



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<https://doi.org/10.4225/08/59a5b9c179743>

Stewart JP, GM Podger, MD Ahmad, MA Shah, H Bodla, Z Khero, MKI Rana (2018) Indus River System Model – A planning tool to explore water management options in Pakistan: model conceptualisation, configuration and calibration. CSIRO, Australia.  
<https://doi.org/10.25919/5b7326bcd1554>

Wallbrink P, A Johnson, R Vertessy, MD Ahmad, J Stewart, J Hayes (2018) Stocktake of water sector reform in Pakistan. Australian water delegation to Pakistan mission report. CSIRO, Australia. 41 pages.

Zheng H, F Chiew, S Charles (2015) Database of CMIP5 climate change projections across South Asia. CSIRO Land and Water, Australia.  
<https://doi.org/10.4225/08/58518ba9eb9e0>

## Conferences/Workshops

Ahmad MD, M Kirby (2018) Water and food security for Pakistan: Australia's experience can help. Invited presentation at International Symposium Creating a Water-Secure Pakistan. Law & Justice Commission of Pakistan, Government of Pakistan. 19-20 October 2018 Islamabad.

Ahmad MD (2017) Integrated modelling framework to explore operational and policy scenarios: DFAT-CSIRO Indus Project. Indus Basin Knowledge Forum – New Knowledge Frontiers for Development and Resilience. IWMI-ICIMOD-World Bank Group. Colombo, Sri Lanka. 1-4 July 2017.

Ahmad MD, Stewart J, Podger G (2018) Indus river system model: A planning tool to explore Water-Energy-Food nexus for Pakistan. Managing Systems Under Stress: Science for Solutions in the Indus Basin. 3<sup>rd</sup> Indus Knowledge Forum, IIASA Laxenburg Austria. 31<sup>st</sup> May – 2<sup>nd</sup> June 2018.

## Databases / datasets

CSIRO (2017) Database of Lithologic Borelog Data of the Indus Basin, Pakistan. v1. CSIRO. Data Collection.  
<https://doi.org/10.4225/08/5a3b567bc9004>

Kirby M, MD Ahmad (2016) Time series (1980-2012) crop areas in the districts and canal commands of Pakistan. V2. CSIRO. Data Collection.  
<https://doi.org/10.25919/5c942a774b274>

## News blogs

CSIRO (2019) CSIRO collaborates with Pakistani partners to raise the role of gender in agricultural research, March 19, 2019. <https://research.csiro.au/sdip/gender-in-agricultural-research-pakistan/>

CSIRO (2019) Understanding production gaps in the Punjab rice-wheat system, March 6, 2019.  
<https://research.csiro.au/sdip/understanding-production-gaps-in-the-punjab-rice-wheat-system/>

CSIRO (2018) Australia and Pakistan collaborations on water, food and energy security strengthened through MOU, October 15, 2018.  
<https://research.csiro.au/sdip/australia-and-pakistan-collaborations-on-water-food-and-energy-security-strengthened-through-mou/>

CSIRO (2018) Milestone for water management in Pakistan, May 31, 2018. <https://research.csiro.au/sdip/milestone-for-water-management-in-pakistan/>

CSIRO (2018) Looking beyond water quality data into decision-making contexts for the Ravi and Sutlej rivers in Pakistan, April 24, 2018.  
<https://research.csiro.au/sdip/looking-beyond-water-quality-data-into-decision-making-contexts-for-the-ravi-and-sutlej-rivers-in-pakistan/>

CSIRO (2018) A gender lens and the role of men in mainstreaming, March 12, 2018.  
<https://research.csiro.au/sdip/a-gender-lens-and-the-role-of-men-in-mainstreaming/>

CSIRO (2017) Data for decision making in Pakistan, October 26, 2017. <https://research.csiro.au/sdip/data-decision-making-pakistan/>

CSIRO (2017) SDIP in Pakistan July 2017: Progressing the Indus River modelling framework, July 27, 2017.  
<https://research.csiro.au/sdip/sdip-pakistan-july-2017/>

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### FOR FURTHER INFORMATION

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