Project fact sheet

Equity and vulnerability in a drying basin

This project sought to understand how river flows affect the wellbeing of communities in regional river towns and to understand how costs and benefits are distributed within small communities.

Key points

This project conducted a thorough review of existing studies examining how varying water availability –from floods to droughts and managed flows – affects rural communities in the northern Murray–Darling Basin. By identifying gaps in current knowledge, the project aims to guide future research investments by the One Basin CRC, ultimately helping communities better manage the impacts of water variability.

The project's primary goal was to assess: the existing research on how different levels of water variability impact communities in the northern Murray–Darling Basin, including both positive and negative effects.

Two key tasks were undertaken to achieve these objectives:

1. A systematic review of scientific and grey literature was conducted to gather evidence on social effects linked to water variability across northern Murray–Darling Basin catchments. This included studying impacts from natural drivers like floods and droughts, as well as institutional factors such as water allocation policies.
2. A conceptual model was developed based on findings from the literature review. This model was validated through a stakeholder workshop involving local community members and government stakeholders with deep knowledge of northern Murray–Darling Basin issues. The workshop provided valuable insights and highlighted additional research needs identified by participants.

The review identified a notable gap in literature regarding the effects of flooding on northern Murray–Darling Basin communities, suggesting a critical area for future investigation. Additionally, gaps were identified in research on the impacts of low water and managed flows, highlighting specific areas needing further exploration.

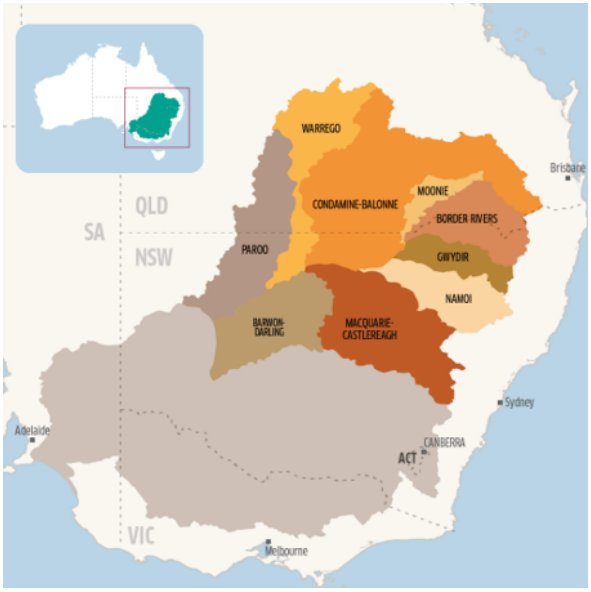

Figure 1. Murray Darling Basin with Northern Basin catchments (highlighted in colour). Source: MDBA (2024a).

Outcomes

The findings underscore the importance of expanding research efforts to better understand and mitigate the social impacts of water variability on norther Murray-Darling communities.

Addressing these knowledge gaps may help to support informed decision making and enhance community resilience in the face of changing water conditions.

One Basin CRC

Since our inception in mid-2022, the **One Basin Cooperative Research Centre** has brought together 85 partners across the Murray–Darling Basin.

Our purpose is to work together to grow value from water in a changing world.

From Queensland to South Australia, we are finding practical solutions to complex challenges, training the next generation of scientists, and nurturing regional communities.

Our collective goal is a productive, resilient and sustainable Murray–Darling Basin.

Key personnel

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