




**NSW Farmers' submission to  
the Productivity Commission's interim  
report of the 2023 Murray–Darling Basin  
Plan implementation review**

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## About NSW Farmers

NSW Farmers is Australia's largest state farming organisation, representing the interests of its farmer members in the state. We are Australia's only state-based farming organisation that represents farmers across all agricultural commodities. We also speak up on issues that matter to farmers, whether it's the environment, biosecurity, water, animal welfare, economics, trade, workforce or rural and regional affairs.

Agriculture is an economic 'engine' industry in New South Wales. Despite having faced extreme weather conditions, pandemic and natural disasters in the past three years, farmers across the state produced more than \$23 billion in 2021-22, or around 25 per cent of total national production, and contribute significantly to the state's total exports. Agriculture is the heartbeat of regional communities, directly employing almost two per cent of the state's workers and supporting roles in processing, manufacturing, retail, and hospitality across regional and metropolitan areas. The sector hopes to grow this contribution even further by working toward the target of \$30 billion in economic output by 2030.

Our state's diverse geography and climatic conditions mean a wide variety of crops and livestock can be cultivated here. We represent the interests of farmers from a broad range of commodities – from avocados and tomatoes, apples, bananas and berries, through grains, pulses and lentils to oysters, cattle, dairy, goats, sheep, pigs and chickens.

We have teams working across regional New South Wales and in Sydney to ensure key policies and messages travel from paddock to Parliament. Our regional branch network ensures local voices guide and shape our positions on issues affecting real people in real communities. Our Branch members bring policy ideas to Annual Conference, our Advisory Committees provide specialist, practical advice to decision makers on issues affecting the sector, and our 60-member Executive Council makes the final decision on the policies we advocate on.

As well as advocating for farmers on issues that shape agriculture and regional areas, we provide direct business support and advice to our members. Our workplace relations team has a history of providing tailored, affordable business advice that can save our members thousands of dollars. Meanwhile, we maintain partnerships and alliances with like-minded organisations, universities, government agencies and commercial businesses across Australia. We are also a proud founding member of the National Farmers' Federation.

## Introduction

NSW Farmers' Association commends the Productivity Commission on releasing this interim report during a turbulent time for those that live in the Basin. The Water Amendment (Restoring Our Rivers) Bill and associated senate inquiry is dominating all discussions regarding the Basin Plan, and there is tangible distress amongst the agriculture industry that even more water may be removed from food and fibre production within the state if this Bill passes. However, in some instances, the Commission does not go far enough in challenging the status quo of the current Basin Plan, especially in regard to the failings of the Murray Darling Basin Authority to actively engage the agriculture industry in NSW.

NSW Farmers have long standing policy that supports the implementation of the Murray Darling Basin Plan (MDBP), as long as there is significant focus on achieving a balance on environmental, social and economic outcomes. The MDBP in its form today is inflexible and therefore the delivery of the Plan by the MDBA and state partners continues to be hampered in meeting this triple bottom line. A significant thread throughout the years has been the numerous reports and advice that have highlighted the shortcomings of this implementation and then provided guidance on how to better deliver the Plan. The crucial next step after this has been that often these solutions have not been taken up by governments and pressure continues to be placed on removing more water from the consumptive pool through buy backs. The social and economic wellbeing of Basin communities needs to be prioritised. Our members are deeply committed to their rural and regional communities, and it is these communities that need to be a part of the solution to delivering a Basin Plan.

It is clear that the Basin Plan has failed in a number of key areas. NSW Farmers see one of the biggest failings being the lack of socioeconomic analysis and reporting, which has led to insufficient consideration of the impact of the Plan on rural communities which are reliant on agriculture. It is difficult to believe then that policy design has been done with the minimisation of impacts to rural communities, and assistance to those negatively impacted, in mind. With distributional impacts being a basic duty of government policy, this is incredibly negligent. Therefore, we provided additional feedback and our own analysis into the socioeconomic impacts.

It will be crucial for the success of the Basin Plan to become more adaptable and that new information, be it climatic forecasting, river modelling, or social and economic analysis, are integrated into the 2026 Basin Plan Review. The communities within the agricultural sector and impacted landholders deserve better than what is currently being promoted as necessary adjustments and that they will just need to accept less water for production, greater impacts on riparian ecosystems and exposed rural communities. Impacts will ripple broader than the regions, with the risk of supply and pricing shocks to food and further degradation of river systems, important for social, economic and cultural wellbeing, from prolonged high flows.

As is detailed throughout our submission, we support a number of the interim recommendations put forward by the Commission. We also share our opposition to some of the assumptions underpinning several of the recommendations and provide alternative suggestions for more comprehensive review. The Commission is encouraged to consider this final submission, alongside our initial submission, before providing its final report to government.

## Response to interim recommendations and information requests

### 2. Response to resetting the balance

#### 2.1 Interim recommendation – the Australian Government should be more transparent, and have greater authority, over decisions for supply, constraints-easing and northern Basin toolkit measures.

NSW Farmers agree that there should be more transparency around the decisions regarding supply, constraints-easing, and the northern Basin toolkit measures. There seems to be confusion about what factors guide decision making, and whether there has been a lack of rigour around decisions or simply poor reporting of information used to make decisions. The monitoring of socioeconomic impacts is a good example. It seems unlikely that no socioeconomic reporting would have been done for one of the biggest reforms facing regional Australia in history, but the reporting of it has been piecemeal at best. Clear reporting would show where gaps exist and give opportunity for the public to provide feedback.

However, the suggestion that the federal government should take on responsibility for decisions over these measures is not the solution. As outlined in our initial submission<sup>1</sup>, communities need to be empowered to get involved with the development and roll-out of projects and transferring responsibility to a federal level will not help this bottom-up approach. The well-publicised delays to projects do not take away from the opportunity they present to contribute to water recovery measures. As noted by the Commission, the Water Amendment Bill currently before the parliament allows for more time to complete projects, as well as the option to consider new project opportunities, albeit on a very tight timeframe. NSW Farmers have provided substantial feedback to numerous calls for ideas just this year, including to DCCEEW, this Commission's initial call for submissions, and the recent senate committee inquiry into the Bill. Throughout we have detailed additional project ideas and opportunities to amend current projects to ensure better success towards social, economic, and environmental measurable outcomes. NSW Farmers does not support the recommendation that the Minister for Water have the authority to cancel a Commonwealth-funded supply measure. Again, this consolidation of veto power leaves too much exposure to projects that can genuinely contribute to the Basin Plan in favour of quick water recovery options like buybacks.

#### 2.2 Interim recommendation – reset and extend implementation of constraints-easing projects.

The interim finding of the Commission that past program design has not suited the complexity of the constraints-easing projects is accurate, however the suggestion that the focus should be on the environmental and operational benefits instead is fraught with danger. NSW Farmers is hesitant to support the decoupling of constraints-easing projects from the supply measure package. The Commission also noted in its interim report that costs to rollout constraints projects have been underestimated and actual costs are expected to be higher than the business cases anticipated. The business cases used for this cost review were not properly ground-truthed at the time and did not consider compensation for affected landholders that would be impacted by easing of constraints. If there is any progress with this recommendation, then it will be critical to review costs, impacts and opportunities to adjust criteria so that the full extent of project roll-out is assessed. Even as projects proceed, there needs to be greater consideration given to flooding risks from pursuing extending high flow targets and projects that seek to connect rivers to floodplains on a consistent basis. Much like how buybacks of water entitlements impact irrigation communities, impacts from constraints-easing projects can be as economically and socially

<sup>1</sup> <https://www.pc.gov.au/inquiries/current/basin-plan-2023/submissions> - submission no. 76

damaging. Whichever way projects are advanced, there needs to be greater scrutiny on the long-term impacts, and in turn opportunities, that will result. While it is posited by the Commission that there will be potentially significant environmental and operational benefits from the easing of constraints, it cannot be ignored that there are also significant environmental risks to river system integrity, and to those that live within the impacted zones. Experience from recent flood events throughout the Murray and Murrumbidgee River systems is a clear warning to environmental water managers that the rivers will not be able to handle continued, high flows without damage to riverbanks, water quality and riparian ecosystems. It is with caution that we support that recommendation – while it is essential that more time be afforded to stakeholders to assess and rollout these projects, as much importance should be given towards working with affected landholders on establishing flow rate targets, and how any changes to this arrangement will impact on offset targets (like the 605GL), and whether other factors (like the storing of more recovered environmental water in storages in the southern basin) will play a significant role in how constraints-easing is managed.

### **2.3 Interim recommendation – implement an assurance mechanism for the northern Basin toolkit**

NSW Farmers support the suggestion that northern basin toolkit projects should be reviewed in a similar fashion to the SDLAM reconciliation, so as to promote better understanding of outcomes and opportunities for improvement. As already noted, the inconsistent sharing of data and information regarding these projects is not acceptable, especially for local communities that are impacted. Again, it should not just be an analysis of environmental outcomes, but also an opportunity to provide a detailed review of social and economic impacts from the implementation of these toolkit projects.

### **2.4 Interim recommendation – develop a renewed approach to water recovery**

The interim report notes throughout that the structure of the current Basin Plan is inflexible and doesn't allow for adaptability, nor the introduction of new information. A new strategy that addresses these shortcomings could be the catalyst to develop a Basin Plan that has better community support. However, we cannot endorse the recommendation that voluntary water purchases be a feature of this new approach. The framework of the Basin Plan, and the underpinning legislation, does not allow a holistic approach to considering all options to obtain water recovery. The new Bill also promotes buybacks as the cheapest and easiest form of water recovery. NSW Farmers cannot support this recommendation if the renewed strategy includes buybacks. The agricultural industry and rural communities can experience social and economic impacts through all water recovery options, but these can be minimised if the focus is instead directed towards bottom-up project development, full investigation into complementary measures and exploration of opportunities around leasing of purchased water back to users.

### **2.1 Information request – new corporate Commonwealth entity**

NSW Farmer question whether there lies the need to create a whole new entity, when so much bureaucracy exists already within the delivery of the Basin Plan at a local, state and commonwealth level. It is noted within the interim report that there will not be enough time to reach goals before reconciliation of the Basin Plan, even with the extended timelines factored into the pending Bill before parliament. We question whether the process to establish, build trust in, and begin operations of the new entity will take time that is just not available. There is value in the recommendation that the new entity would be independent from the government of the day, as this is important to make gains in the current trust deficit existing between stakeholders, governments and members of the public. Regardless of whether this

recommendation is progressed, crucial to success of the Basin Plan is allowing those on the ground to be heard and their knowledge and experience valued within the decision-making process.

### **3. Environmental water planning and management**

#### **3.1 Interim recommendation – improving the effectiveness of the Basin-Wide Environmental Watering Strategy**

In our initial submission, we strongly noted that the single-minded focus of acquiring and delivering water for the environment above all other recovery or efficiency options was at the detriment of the those affected landholders and the river ecosystem itself. If this recommendation seeks to promote the continued push to maintain high flows through river systems like the Murray and Edward-Wakool, and the concerns of affected landholders are not adequately addressed, we cannot provide support. No strategy should use only one tool in the box to achieve its goals; as such, the use of volume of water only as the measure of effectiveness is bringing the Basin Plan undone. The focus should shift to also factor in water quality priorities, and how the movement of environmental water impacts on the environmental health of rivers and waterways. Any review into the effectiveness of the Basin-Wide Environmental Watering Strategy would need to fairly assess how pre-requisite policy measures rolled out in southern NSW are contributing to increased flooding risk, as well as looking at how communities can be truly engaged in the process. We point to the series of recommendations put forward by the Independent Expert Panel report<sup>2</sup> prepared for the Victorian and NSW governments in 2019 as a solid basis for starting a review that is centred on stakeholder engagement. Again, we are hesitant to endorse the Commission's recommendation that the review by the MDBA into the Strategy offer clear guidance on the priority for achieving flow connectivity at the system scale. The review should incorporate new knowledge into the impacts of regularly connecting rivers to wetlands on the floodplain, especially addressing the costs to landholders of easing constraints, ongoing social and economic impacts to communities, and whether environmental targets are robust to withstand changing climate influences.

#### **3.2 Interim recommendation – the adaptive management of long-term watering plans**

As noted throughout the Commission's interim report, the Basin Plan continues to be rigid and lacks the necessary levers to allow adaption outside of the official review process. This is true also for the long-term watering plans and overall management of environmental water. State governments need to increase transparency to the process around establishing long-term watering plans and truly incorporate local knowledge from Basin communities, which will go some way in making it clearer to stakeholders, both in and out of the Basin, the true objectives and boundaries of these plans. NSW Farmers recommended in our initial submission the importance of increasing the focus on natural resource management, and as such support this recommendation.

#### **3.3 Interim recommendation – basin annual environmental watering priorities require review**

NSW Farmers agrees that the MDBA should review the priorities around environmental watering, especially regarding the impact of constraints management and complementary measures, as detailed earlier. Part of this review needs to include recent research and other reviews that have outlined the impacts experienced

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<sup>2</sup> [https://www.industry.nsw.gov.au/\\_data/assets/pdf\\_file/0007/148228/Murray-Darling-Basin-SDL-Adjustment-MechanismReport-by-the-Victorian-and-NSW-Ministers-Independent-Expert-Panel.PDF](https://www.industry.nsw.gov.au/_data/assets/pdf_file/0007/148228/Murray-Darling-Basin-SDL-Adjustment-MechanismReport-by-the-Victorian-and-NSW-Ministers-Independent-Expert-Panel.PDF) accessed 16/11/23

by stakeholders through the management of environmental water. This includes those living through years and years of uncertainty due to the continued evolution of constraints management strategies in southern NSW, as well as those that use irrigation across the state who cannot access clear information regarding environmental water release, impacting on their infrastructure and operations. The annual water priorities should be more adaptive on a year-to-year basis, so better modelling and expected climatic scenarios can be introduced. Many users who use water for agricultural production change and adapt their watering priorities on a seasonal basis; those who are responsible for managing environmental water should do the same.

### **3.4 Interim recommendation – delivering shared benefits from the use of environmental water**

It is important to acknowledge the connection between First Nations peoples and the Murray-Darling Basin. As it is not within the scope of our Association to comment on this recommendation in detail, we will continue to support the involvement of First Nations peoples with the Plan as a significant stakeholder.

## **4. Water resource plans**

### **4.1 Interim recommendation – simplify requirements for water resource plans, and 4.2 Interim recommendation – a risk-based approach to amending water resource plans**

The Commission has focused in on the risk to the implementation of the Basin Plan due to the delay with finalising the WRPs for NSW. It must be acknowledged that NSW is responsible for a significant share of WRPs compared to other state and territory governments, and the delays can in part be caused from the prescriptive and convoluted process required to accredit WRPs. It should also be recognised that even without a full suite of accredited WRPs, many valleys in NSW are meeting their SDL compliance. If the recommendation to simplify requirements for WRPs is progressed, it may also be the opportunity to assess whether the overall structure of WRPs fully addresses whole-of-basin connectivity, due to the current failure to recognise how plans in the northern and southern basin influence each other. NSW Farmers can provide in-principle support to these recommendations to simplify the requirements and change the approach to amending WRPs, based on clear consultation on what low-risk would entail and how these amendments would be assessed.

### **4.1 Information request – reporting on compliance and other arrangements**

NSW Farmers agrees with the Commission's comments that the establishment of the Inspector-General for Water Compliance (IGWC) role has been a positive addition to implementation framework of the Basin Plan. We encourage exploration of how this role could be expanded to take on more responsibility for compliance alongside the continued responsibility of the state governments, to avoid overlap of reporting requirements or the creation of another overseeing body within the framework. Reporting by the MDBA in particular has been perceived by affected stakeholders and impacted communities as bias in regard to the minimising of adverse impacts experienced by those on the ground. We suggest that it is only fair to acknowledge that while the Basin Plan has been able to deliver significant outcomes for the environment since its inception, there will always be counter impacts and communities deserve this acknowledgement. This may also help to balance messaging to the broader public about how local communities are essential to delivering the Basin Plan and their participation, and willingness to adapt, comes at cost. Better and more timely reporting of data about water use, SDL compliance, and environmental watering outcomes,



amongst other areas, will go some way in repairing the deficit in trust that currently exists between some water users or communities and the authorities.

## **5. The values of First Nations people**

### **5.1 Interim recommendation – strengthen the roles of Aboriginal and Torres Strait Islander people in the Basin Plan**

It is important to acknowledge the connection between First Nations peoples and the Murray-Darling Basin. As it is not within the scope of our Association to comment on this recommendation in detail, we will continue to support the involvement of First Nations peoples with the Plan as a significant stakeholder.

## **6. Bringing new knowledge into the Basin Plan framework**

### **6.1 Interim recommendation – specific measures or targets for evaluating climate change resilience, and 6.1 Information request – embedding climate change science into the Basin Plan framework**

As detailed in our initial submission, NSW Farmers believes that the current Plan is not currently utilising best available science and is not structured to allow incorporation of new information into decision-making. While the MDBA advises that it will consider climate change and its impacts in the 2026 review of the Plan, it is also important to acknowledge that there is already a relatively cautionary approach to managing droughts, flood and forecast changes to inflows in regulated systems. The process of determining annual allocations ensures water is shared by all users on an equitable basis, and the structure and implementation of SDLs is in place to manage changes to inflows, water in storages and state sharing arrangements. We are cautious to support the recommendation that additional or specific targets are introduced that may look to preserve additional water to account for modelled impacts from climate change. Resilience of the Basin and the Plan is paramount to support communities, industry and environments, so this recommendation to single out climate change as a factor that needs to be considered above others through specific measures does not recognise how other factors (like further removal of water from agricultural production) will impact on resilience. Much like the agriculture industry is adapting to prepare for a changing future climate, those tasked with looking after the environment will also need to consider how river ecosystems will look in a future where all users of water will need to use water more efficiently.

### **6.2 Interim recommendation – publishing material used for decisions, and 6.3 Interim Recommendation – strategic coordination of knowledge generation and sharing activities**

NSW Farmers agrees that there needs to be better sharing of the data, reports and reviews that are used by the MDBA, governments, and state authorities to determine decisions about water management. By providing transparency to this process, it should allow for stakeholders and communities impacted by these decisions to understand if and to what extent local knowledge is incorporated and should further allow for greater recognition of responsibility for decision makers. It is reasonable to expect that there will be gaps in knowledge and understanding of the complexities of water management within the Basin. The MDBA continues to be a barrier to effective sharing of knowledge across the basin, and any role that is established under this recommendation needs to prioritise amplifying the lived experience of local communities who are experiencing impacts, both beneficial and adverse.

## **7. Water quality and critical human water needs**

### **7.1 Information request – options to improve water quality and availability in the northern Basin**

It is essential that water quality for all users is improved, and that those in the northern Basin are afforded the same right to safe and reliable water for critical human needs. Whether this should be the responsibility of the MBDA under the Basin Plan is unclear. Again, the input from local communities that are experiencing town water supply issues, like Bourke and Walgett, is essential to ensure that their knowledge and experience is included. It will also be important to consider impacts on a catchment level, and how these impacts flow up and down stream. Regarding water quality, the focus on recovering more water as the solution for all challenges within the Basin Plan is not the answer – this was reiterated in the NSW Chief Scientist review into the Menindee fish deaths.

## **8. Water trading rules**

### **8.1 Interim recommendation – a comprehensive review of trading rules in the Basin Plan**

NSW Farmers is cautious to support this recommendation in full without knowing further details into the proposed scope of the review. The recent work of the ACCC into water markets in 2021 and the subsequent implementation roadmap final report on water market reform by Daryl Quinlivan, published in 2022, have both provided detailed analysis and recommendations to improve the transparency of the market and associated trading. This work and the recommendations should be fully investigated before another review is ordered. If a review into trading rules was progressed, it will be important to examine how conditions like trading zones, or limited parcel size, could be utilised to protect the principles of the National Water Initiative. It will also be critical to assess the feasibility of rationalising trading rules and regulations across all levels of government, all states and all valleys.

## **9. Governance and engagement**

### **9.1 Interim recommendation – extending oversight of intergovernmental funding agreements relevant to Basin Plan implementation, and 9.2 Interim recommendation – improving the transparency of Basin Officials Committee**

We agree with the Commission's finding that sourcing and verifying information about water management within the Basin Plan is a continued frustration for stakeholders and communities. A focus on improving the access to quality data and information will be crucial when the Basin Plan Review is undertaken in 2026. Transparency on the decision-making process is greatly needed to help improve the social licence of the MDBA and other state and federal agencies who are involved in delivering the Basin Plan. This can also be extended to funding agreements relevant to implementation of the Basin Plan. The announcement<sup>3</sup> by Minister Plibersek in August 2023 that promoted the new agreement signed onto by all Basin state and territory governments, except Victoria, did considerable harm to the unity, however tenuous, that had been in place since the inception of the Basin Plan 2012. The lack of clarity on the conditions of agreement and what additional funding was actually offered further eroded the limited trust that communities had in those who have the power to significantly impact on their livelihoods. We support the public sharing of

<sup>3</sup> <https://www.dcceew.gov.au/water/policy/mdb/basin-plan/agreement2023> accessed 16/11/23

information like this that will go some way in improving transparency to the intergovernmental funding agreements that crisscross the implementation of the Basin Plan. We also support the recommendation to improve the transparency of the Basin Officials Committee.

### 9.3 Interim recommendation – strengthening the community voice in Basin decision-making

NSW Farmers agrees with the interim findings of the Commission that community engagement by government agencies is not well coordinated, and that current engagement approaches are not well defined, resulting in consultation overload. As outlined extensively in our initial submission, collaborative partnerships and valuing local knowledge is critical to success for any program and these two factors are sorely lacking for the current decision-making process. We strongly support the recommendation.

## Focus on socio-economic impacts

Overall, evaluations have shown that water market reform, including buybacks, have led to net economic and social benefits for communities in the Murray-Darling Basin. However, the uneven distribution of these benefits means that some regional communities have been negatively impacted. The lack of rigorous socioeconomic studies means that these impacts have not been properly quantified. This has subsequently led to poor policy design both in terms of how water has been secured for the environment at the expense of farming communities, and structural adjustment programs aimed at assisting communities who have been negatively impacted.

The Productivity Commission's interim report continues this failure with scant analysis of socioeconomic impacts, with myopic focus on the shortfall. For example, in Box 2 only the gross value of irrigated agricultural production in the Basin is used as a measure of socioeconomic impacts. This neglects to mention any structural adjustments, such as growth in production value being driven by increases in horticulture production with decreases in dairy production, and any changes in profitability which are a better measure of farm performance and farm livelihoods. It is damning that the leading economic analysis agency completely failed to go beyond surface level analysis. Any consultation with ABARES would have provided more detailed analysis.

In the Cost Benefit Analysis guidelines by the Office of Impact Analysis it states:

A CBA aggregates costs and benefits across individuals without regard to the equity of the distribution of those costs and benefits. A CBA implicitly counts a dollar gain to one person as cancelling a dollar loss to another. It assumes that a dollar is worth the same to everyone. In other words, CBA is directed at whether the proposal delivers a net gain in dollar value to society as a whole, rather than who receives the benefits or who pays the costs.

While CBA cannot resolve equity issues, it can draw attention to them by quantifying the impacts of proposed actions on different groups. If the information is available, a CBA can identify potential winners and losers and the magnitude of their gains and losses. It is then up to decision makers to decide whether distributional impacts or equity issues are important and need addressing.

Governments have failed on two fronts; failure to account for distributional impacts of the Plan, and failure to address distributional impacts as stated in the aims of the Plan. For arguably the biggest reform to regional Australia in history this is an incredible oversight.

Similar to other areas of the Commission's interim report, NSW Farmers believes it is vital that the report calls out the failures of the Government to act on the findings of the previous assessment in 2018 regarding socioeconomic impacts. For example, recommendation 5.3 in the first assessment stated:

The Department of Agriculture and Water Resources' (DAWR) water recovery strategy should explicitly outline how it will seek to address adverse socioeconomic impacts through programs design. ...

DAWR should also implement a regional-level monitoring and evaluation program to identify (over time) which regions are subject to substantial socioeconomic impacts from additional water recovery.

Recommendations 3.3 stated:

If provided, the Australian Government should target any further assistance to communities where substantial adverse impacts arising from water recovery to date or any future recovery programs have been identified. This should:

- have clear objectives and selection criteria
- be subject to monitoring and evaluation.

The first assessment also found that there is little evidence to indicate specific assistance programs have been effective. For example, a number of grants were provided to communities which did not rely on irrigated agriculture.

Yet the latest interim report clearly shows that these recommendations were ignored and failures to properly assess socioeconomic impacts and design policy to minimise these impacts persist. For example, the following is stated:

Future water recovery should occur alongside a clear commitment from Basin governments to assist communities, where necessary and warranted, to transition to a future with less certain water availability.

The Australian government's water recovery strategy should incorporate socioeconomic monitoring to identify likely adjustment pressures exacerbated by specific purchases or projects and to inform more effective targeting of transitional assistance.

Almost 10 years into the MDBP and there is no socioeconomic monitoring occurring?

### **Socioeconomic issues**

There has been evidence that buybacks have allowed water market participants to improve farm efficiency, reduce debt, and ease transition or exit. Often these benefits have been achieved by selling surplus water or water which they planned to sell anyway. It is likely that the number of willing sellers with surplus water

are a lot smaller than previous, due to the large volume of buybacks already being completed capturing this surplus water and the maturity of the water market having allowed these transactions to happen for over a decade.

Irrigation generates more economic activity than does selling water and either leaving land fallow or using land for dryland operations. While irrigators who sell water have some capacity to adapt or exit, dependent businesses and workforces are less able to adapt to change. Irrigators that rely on the temporary market for water are more exposed to market dynamics, and therefore exposed to more risk. Buybacks will increase water prices, and therefore expose irrigators to more risk.

The Productivity Commission<sup>4</sup> has previously acknowledged that buybacks have had adverse impacts at the local scale, due to large irrigators selling water entitlements and then adjusting their business practices. For example, the largest employer in the Collarenebri area sold its entire water holdings in 2009 and converted to dryland farming, which had significant employment ramifications for the community.

The MDBA<sup>5</sup> found that across 40 communities examined, 18 experienced modest and identifiable adverse effects, while 10 experience large adverse effects. In those 10 communities, water recovery led to effects on employment of greater than 6 per cent.

The pace of change, in addition to the magnitude, has also been significant, with structural change occurring in the agricultural sector of the Basin at an alarming pace. There has not been enough support to assist communities in dealing with one of the largest reforms ever implemented in Australia.

### **Structural adjustment funding**

Specific structural adjustment assistance is not part of the Basin Plan, so there is no direct requirement to evaluate programs with this aim. The Productivity Commission found little evidence that structural adjustment programs were targeted toward communities that were identified as being most vulnerable to the impacts of the plan. A number of grants were provided to areas that did not rely on irrigated agriculture.

In its interim report the Productivity Commission notes:

Future water recovery should occur alongside a commitment from Basin governments to assist communities, where warranted, to transition to a future with less available water. Adjustment assistance should build on the evidence about what programs work and complement existing regional development strategies.

The Productivity Commission states some lessons from recent adjustment programs, such as the Murray-Darling Basin Economic Development Program. It should, however, be explicit in how its recommendations from its 2018 report were ignored in relation to structural adjustment programs. It should also note any changes to regulations of the Plan itself which would embed better monitoring and evaluation of structural adjustment assistance programs.

Like other areas of water market reform, policy certainty in this space would provide regional communities with better ability to cope with structural adjustment. Along with better planning of water recovery, there

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<sup>4</sup> Productivity Commission (2018) *Murray-Darling Basin Plan: Five-year assessment Inquiry Report No. 90*

<sup>5</sup> MDBA (2018) *Basin Plan Evaluation - Addendum*

also needs to be more certainty provided to communities on what assistance they will receive and when. The Productivity Commission should include this explicitly as part of their recommendations. Linkage to other programs such as the Future Drought Fund, which aims to build community resilience, should also be mentioned. There is a similar history in the drought space of repeating past mistakes and replication of programs. It is likely that structural adjustment programs as part of the Basin Plan overlap with Future Drought Fund activities.

### Quantification of impacts

There have been numerous studies completed into the socioeconomic impacts of the Basin Plan, with varying results. The rigour of these studies, however, have come into question, and have largely been the result of independent groups engaging consultants to fill the gap left by poor monitoring and evaluation by Government. For example, one study commissioned by the Victorian Government<sup>6</sup> assumed that all potential future buybacks would be taken from horticulture, leading to lost production greater than \$400 million per year. This is very unlikely as water would be taken from lower value uses who would voluntarily sell first. It also fails to take into account any structural industry changes which would result in this land being used for other purposes, such as broadacre agriculture, which would still generate value.

ABARES<sup>7</sup> completed modelling of a future market scenario which assumed full implementation of future water recovery to meet Basin Plan requirements (3,200 GL). However, it assumes that this water recovery occurs through on-farm investments, which have shown to be inequitable and lead to minimal, if any, water recovery. It does, however, assume an 11 per cent decrease in allocation volume due to lower rainfall, which is instructive of what could happen with an even larger decrease due to buybacks.

Their modelling found that:

- Water use will continue to shift between regions and locations. Almond water use is expected to increase as these plantings mature, resulting in water use by all other sectors other than horticulture falling. Water use by dairy and rice falls on average by 14 per cent and 15 per cent respectively.
- There would be enough water to meet future horticulture demand in the scenarios modelled, even if Millennium Drought conditions occur again. Horticultural plantings are assumed to use around 1,276 GL on average each year.
- Water recovery could result in average water prices increasing significantly. Compared with the current market scenario, allocation prices in the future market scenario are estimated to be 28 per cent higher on average. Under drier conditions, allocation prices in the Southern Basin are 50 per cent higher than in the current market scenario.
- Due to water moving to higher value almond production, and on-farm productivity improvements, the gross value of irrigated agricultural production only declines by 0.8 per cent. The value of production by traditionally irrigated sectors dairy and rice decreases by 9 per cent and 13 per cent respectively.

It is clear that even if buybacks are not used at all water markets will lead to large scale structural reform across the southern Basin.

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<sup>6</sup> Frontier Economics (2022) *Social and economic impacts of Basin Plan water recovery in Victoria*, 5-year update for Department of Environment, Land, Water and Planning

<sup>7</sup> ABARES (2020) *Future scenarios for the southern Murray-Darling Basin*, Research report 20.2

### Dairy case study

The southern Murray-Darling Basin makes up around one-fifth of Australia's total dairy farms. In 2014-15 irrigated dairy production contributed 17 per cent of the total gross value of irrigated production in the Basin. There has already been significant restructuring of the industry, with deregulation in the 1990s and 2000s leading larger and more intense operations. For example, the number of dairy farms with fewer than 200 cows decreased from around 1,300 to 500 between 2006-07 and 2014-15. This trend likely continued, with around 32 per cent of dairy farmers surveyed in 2016 indicating an intention to retire or sell their farm in the next 3 years<sup>8</sup>. This situation would have been exacerbated by the Millennium drought.

At the national level, farm business profit declined significantly from an average of \$88,290 per farm in 2017-18 to -\$21,300 per farm in 2018-19. In the preceding 10 years farm business profit was also negative in 2009-10, 2012-13, 2015-16, and 2016-17, and the proportion of dairy farms recording negative farm business profit averaged 49 per cent<sup>9</sup>. Negative profit greatly affects ongoing viability as farms have reduced capacity to invest in newer and more efficient technologies, gain access to credit, and employ a productive workforce. This shows the volatile and risky nature of dairy farming, which has faced difficult seasonal conditions, market power abuses, and costs of inputs rising faster than prices received. It is very difficult to disentangle any impacts of water reform and buybacks on this situation, but certainly delving deeper into farm performance than merely value of production figures. More rigorous studies should be urgently carried out to analyse the impacts of previous water market reforms on specific sectors in the Basin to better predict the impacts of future reforms.

Using the scenarios used by ABARES and other data points we can predict the impacts of future water recovery on the dairy industry. The following assumptions have been used, with their sources:

Assumption	Figure	Source
Percentage reduction in water availability	11%	ABARES future market scenario
Reduction in water use by the dairy industry (ML)	69,000	ABARES future market scenario
Consumptive water intensity of the dairy industry (ML water used per ML of milk produced)	1.86	Australian Dairy Industry Sustainability Report 2021
Milk price (\$/ML)	\$752	ABARES: Outlook for Dairy 2022-23 milk price
Water price for recovery (\$/ML)	\$280	ABARES future market scenario
Processing sector direct value	\$3,135,000,000	Deloitte study for Australian Dairy Products Federation
Regional value of processing sector direct value	57%	Deloitte study for Australian Dairy Products Federation
Productivity increases	0	Assumption. Unlike the ABARES study no water recovered through on-farm investment
Discount rate	7%	

By using these figures over a 20-year time horizon, it is possible to calculate expected production losses for the dairy industry from buybacks. This figure comes to \$241.7 million. The only adjustment to the total

<sup>8</sup> Ashton, D. and Gomboso, J. (2016) *Dairy farms in the Murray-Darling Basin*, ABARES <https://www.agriculture.gov.au/abares/research-topics/surveys/irrigation/dairy#daff-page-main>

<sup>9</sup> Weragoda, A. and Frilay, J. (2020) *Financial performance of dairy farms, 2017-18 to 2019-20*, ABARES

losses is the gains to producers from selling their water. There would also be flow-on impacts to industries which provide inputs to dairy production and downstream industries which use milk as an input. To illustrate these potential impacts, a similar reduction in the processing industry's regional value was calculated. This would bring total losses to \$378.9 million.

A complete study of net losses would need to account for any structural adjustments, such as switching from dairy production to broadacre production, and the expansion of larger dairy farms at the expense of smaller dairy farms. It is telling that there has been no large-scale economic analysis using general equilibrium modelling of the impact of the largest regional reforms since the deregulation of agriculture in the 90s.