

NSW Legislative Council inquiry into floodplain harvesting

On-notice response to Northern Valley Irrigators Alliance economic report

An economic report commissioned by irrigation lobby groups focuses on northern Basin agriculture in general not floodplain harvesting specifically. It does not even include the term “floodplain harvesting”. It provides no analysis of the economic impact of changes to floodplain harvesting volumes. No part of the report contradicts the findings of The Australia Institute’s submission. Most of the analysis actually reinforces our conclusion – that floodplain harvesting volumes could be reduced with minimal impact on employment, supply chain industries and public revenue.

Rod Campbell

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ABOUT THE AUTHORS

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Introduction

The Australia Institute is grateful for the opportunity to have appeared before the NSW Select Committee on Floodplain Harvesting on 22 September 2021. During the hearing, Mr Banasiak tabled a report titled “Irrigation industry economic benefits: Murray Darling Basin”, written by consultants Macroplan, commissioned by the Northern Valley Irrigators Alliance (NVIA), dated September 2021. Mr Banasiak asked us to comment on this report on notice.

RECAP OF AUSTRALIA INSTITUTE SUBMISSION

The Australia Institute submission to this inquiry highlighted that reductions in floodplain harvesting volumes would likely result in minimal economic impact to the wider economy. This is because:

- Floodplain harvesting operations are largely aimed at producing cotton, with intensive use of capital (water storages and machinery) and minimal use of labour. Our submission highlighted that even in areas well-known for cotton production, cotton growing and ginning accounts for less than 5% of employment.
- Floodplain harvesting operations producing cotton purchase inputs that are sourced nationally or internationally, not locally. Floodplain harvesting operations’ outputs are almost entirely cotton, which is exported with minimal value added locally.
- By contrast, southern Basin irrigated products see more value adding and related-industry employment. If reduced floodplain harvesting in the north sees increased water allocations in the south, a net increase in Basin employment is likely.
- Floodplain harvesting operations make no significant tax or other payments to government, based on available data.

With few jobs at stake, weak links with local economies and minimal contributions to public revenue, it is likely that floodplain harvesting can be heavily reduced with minimal disruption to local communities economies and public agencies. While the impacts on floodplain harvesting businesses would, of course, be considerable, this private impact should not be confused with wider economic impacts and community welfare.

Comments on NVIA report

The NVIA report does not dispute any of the points in The Australia Institute submission. The report states that the consultants were engaged to *“prepare a high-level overview of the value and flow-on benefits of investment in the irrigation industry in the northern basin of the Murray Darling Basin.”*

Being a high-level analysis, the NVIA report looks at northern Basin water use in general rather than floodplain harvesting in particular. The term “floodplain harvesting” does not appear in the document.

Much of the economic activity discussed in the report has only the most tenuous links with floodplain harvesting. Below are some key quotes and points from the NVIA report and comment from The Australia Institute:

- **NVIA report quote:** *“Economic activities within the northern basin that rely on irrigation include stock watering, general agriculture, manufacturing industries (generally food processing industries) and mining. Other water uses include urban and domestic requirements.”*
 - **Australia Institute comment:** Floodplain harvesting is aimed almost entirely at cotton production. To the extent that stock watering, food processing and mining “rely” on irrigation, it is on other forms of take, not floodplain harvesting.
- **NVIA report** lists as other “economic highlights” the northern Basin resident population, counts of all business, counts of businesses with over \$5m turnover, non-residential building approvals, total employment and egg production.
 - **Australia Institute comment:** None of these activities/indicators are strongly linked to floodplain harvesting or cotton production.
- **NVIA report quote:** *“The irrigation industry employment is part of the electricity, gas, water and waste services industry sector. Employment in this sector increased from 5,200 workers in 2016, to 6,100 by May 2021.”*
 - **Australia Institute comment:** This approach is unorthodox. It considers irrigation to be a part of utilities like water and electricity provision, rather than part of agriculture. These employment numbers would

include workers on gas pipelines, sewage treatment plants and solar farms. These have nothing to do with floodplain harvesting.

- **NVIA report quote:** *“Irrigation is a critical foundation for the agricultural sector in the northern basin. This includes water to provide feed crops for livestock as well as crops for human consumption. Water is also critical for the food processing sector and underpins growth of the slaughtering industry for domestic consumption and exports.”*
 - **Australia Institute comment:** feed crops and livestock raising are not the focus of floodplain harvesting – cotton is. As far as we are aware, there are no reports of landholders building huge on-farm storages and setting up shell companies in the Cayman Islands in order to grow lucerne.

The main industry analysis in the NVIA report is of two industry classifications that also have very little connection to floodplain harvesting - *Sheep, grains, beef and dairy cattle* and *Meat and meat product manufacturing*. The NVIA report’s analysis of the inputs and outputs of these industries shows how different they are to the cotton industry. As our submission shows, almost all inputs of the cotton industry are sourced nationally or internationally, while outputs are almost entirely exported. The NVIA report shows that non-floodplain harvesting livestock and meat sectors include are far more closely linked to local economies including meat processing, grain milling, beer manufacturing, tourism, residential care services, etc.

To be clear, the NVIA report shows that non-floodplain harvesting sectors are more economically linked to communities and the wider economy than floodplain harvesting-heavy cotton. This is entirely consistent with The Australia Institute submission.

The only parts of the NVIA report that we would dispute relate to the claim on northern Basin agricultural employment growth and the multiplier analysis around irrigation investment.

AGRICULTURAL EMPLOYMENT GROWTH IN THE NORTHERN BASIN

Figure 1.1 of the NVIA report shows huge growth in agriculture employment in the northern Basin between 2016 and 2021. This relates to all agriculture, not to floodplain harvesting-related employment, which is likely to be minimal.

The source data for Figure 1.1 is the Department of Education, Skills and Employment SA4 - Employment by Industry Time Series. Almost all of the growth claimed in Figure 1.1 and Table 1.1 comes from the New England and North West Statistical Area, which saw all agriculture, forestry and fishing employment increase from 6,300 to 20,400.

This growth possibly relates to genuine growth and perhaps also 2021 being a wetter year than 2016. But more likely is unreliable data. Due to the small sample sizes used in this series, it is erratic and not always reliable. This can be demonstrated by checking the last ABS census for the New England and North West Statistical Area. The census has highly accurate data on agricultural employment in 2016. The census suggests the starting point should have been 10,815, not 6,300. It is likely that the 2021 census will also have a different result to the NVIA 2021 estimate, but data is not yet available.

Regardless, this discussion is of agricultural employment in general, only a tiny fraction of which is cotton-related, a still smaller fraction of which is from floodplain harvesting. None of this affects the basic point that floodplain harvesting volumes can be reduced without significant changes in employment.

MULTIPLIER ANALYSIS OF IRRIGATION INVESTMENT

The NVIA report includes some very basic analysis of a hypothetical \$20 million investment in irrigation. The report estimates the “direct, indirect and induced” employment multipliers of such an investment.

The NVIA report derives these multipliers from Australian Bureau of Statistics (ABS) input-output tables. The ABS formerly published these multipliers separately, but stopped because of the way they were used by industry lobby groups:

Production of multipliers was discontinued with the 2001–02 issue for several reasons. There was considerable debate in the user community as to their suitability for the purposes to which they were most commonly applied, that is, to produce measures of the size and impact of a particular project to support bids for industry assistance of various forms.¹

The NVIA report is a perfect example of why the ABS stopped publishing multipliers. They are misused. The ABS lists some of the reasons why this approach is “a biased estimator of the benefits or costs of a project.” Two key points that are relevant here:

¹ ABS (2010) *Input output multipliers*, <https://www.abs.gov.au/AUSSTATS/abs@.nsf/Previousproducts/5209.0.55.001Main%20Features4Final%20release%202006-07%20tables>

- “Lack of supply-side constraints”. In other words this approach assumes that this new project can go ahead without affecting any other project or industry. If this hypothetical \$20 million was instead spent on health care in Narrabri, far more jobs would be created, but this is ignored in multiplier analysis.
- “Not applicable for small regions” The NVIA analysis is based on national or state-level estimates of industry linkages. The ABS notes “For small regions multipliers tend to be smaller than national multipliers since their inter–industry linkages are normally relatively shallow.”

Furthermore, the NVIA report multipliers are derived not from estimates of floodplain harvesting operations, or even agriculture more broadly. As discussed above, the analysts treat irrigation as part of the utilities industry, specifically the ‘*Water Supply, Sewerage and Drainage Services*’ Sector. This analysis provides decision makers with absolutely no useful information about the economic impact of changes to floodplain harvesting volumes.

Conclusion

The NVIA report presents some useful information about agriculture and the wider northern Basin economy. However, there is no information that can help the committee understand the economic impact of a major reduction of floodplain harvesting volumes.

The timing and nature of the NVIA report suggests that it has been commissioned in response to our submission. Our finding of minimal economic impact from a reduction in floodplain harvesting volumes is certainly contrary to the interests of the groups that commissioned the report. However, no part of the report contradicts the findings of The Australia Institute's submission. Most of the analysis actually makes the same points.