Productivity Commission Review into National Water Reform

Professor Jim Pratley, Charles Sturt University, Wagga Wagga, NSW

Background

The introduction to the guidelines for this Review (e.g. Figure 1, page 2 and related discussion) clearly articulates the issues brought on by climate change. They are worth emphasising with a focus on south-eastern Australia. Issues include:

- Since 2000, the number of drought years per decade have doubled;
- Since 2000, the number of flood years per decade have halved;
- Communities have run out of water e.g. Guyra, Tamworth, Armidale, Menindee etc.;
- Industries have threatened futures, e.g. rice, cotton, dairy, with substantial impact on workforce and cascading impacts to local businesses;
- Rivers have run dry with sad outcomes of fish kills and blue-green algae contamination.

In each year of drought in NSW, agriculture GVP drops by at least half. In a good year, that GVP is worth $12 billion. So drought years forego more than $6 billion per year. There have been 8-9 drought years since 2000 so there has been close to $50 billion in foregone GVP and that does not count the drought subsidies and unemployment benefits paid. Further, there is a 2-3 year legacy impact as herds and flocks have to rebuild.

The projections on climate change, which thus far have been close to the mark, indicate a 1^0C increase in global temperatures by 2030, more dry years and extreme weather events. Run-off is likely to be less than now. Together these suggest that there will be **even less water** going forward and so inland areas face an unsustainable future.

As a nation we need to accept that we are the driest inhabited continent in the world. We have the most variable climate and we operate in a higher risk business scenario than most other countries. The plain fact is that **we do not have sufficient water** to sustain our industries, communities and environments in the inland. Interestingly, as a continent, we are surrounded by relatively unlimited water.

The stresses on communities are alarming. There is conflict at every level of government, between and within political parties, between States and between and within communities. The financial stresses have been severe for many individuals, businesses and communities. The mental health of rural communities – especially indigenous ones - is of particular concern, not to mention the environmental degradation caused by declining water supply.

Paradigm shift

Under the current mindset we have reached the point that there is **not enough water** to satisfy all, or any, of the users. This is not about how to manage the water resources better but rather about having **enough water to manage**. So rather than cutting the pie into smaller and smaller pieces, we need to **grow the pie** because we have a water crisis that will not go away unless we act.

No longer can we procrastinate on whether we do something – **we need to get on with deciding what we do and how we do it NOW.** The only way forward in our view is to introduce significant quantities of extra water. Of course this is not particularly novel – other countries do it. Israel, for example converted itself from a water-starved country to one which delivers quality water to its neighbouring countries. To do something like this in Australia would indeed be novel – we have the

capabilities, we have the technologies. The only thing missing is the will to do it and the commitment to look at innovative ways in which to deliver. We ought not depend on governments to foot the whole bill but rather explore PPPs or private investment with returns in investment. We need to consider how industries can work together in this space (e.g. agriculture and mining) rather than be competing for common infrastructure and resources.

No silver bullet

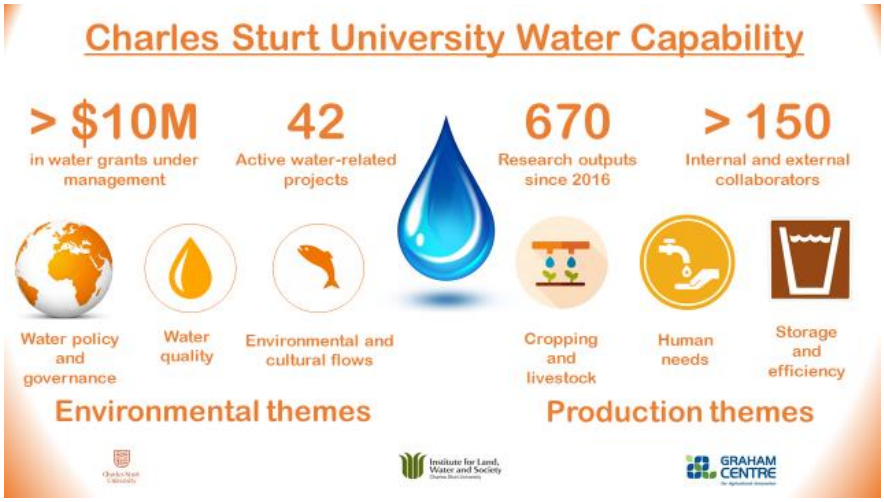
We ought not to think that there is a single solution to this agenda. Rather we need to think about all the options which together bring a sustainable water supply to the existing industry footprint and associated communities but also perhaps to consider expanding the footprint to sustain larger areas of production.

We at CSU are endeavouring to play an evaluation and facilitating role through the establishment of a "New Water Hub" which has the following objectives:

- Creation of a portal for plans, reviews and feasibility studies, maps and data so that those who want to be investors and innovators can see the portal as largely a 'one-stop shop'. Currently information is scattered and often hidden thereby making progress tortuous and expensive;
- Establishment of a research unit that evaluates all the options such that the best ones for the appropriate location can have rapid development towards implementation;
- Implementation of a demonstration and evaluation unit for technologies around the world that could be adapted to Australian conditions to deliver more water, better water-use efficiency or reduce water losses;
- Engagement between industries, communities and environment to look for solutions for multiple benefits;
- Instigation of a unit of 'accelerated policy' so that innovative schemes for investment and management can be evolved.

Why CSU?

Charles Sturt University is the largest regional university in Australia with campuses on several of the major river systems of inland NSW. It is the largest provider of undergraduate agricultural and related courses nationally and its graduates are mainly employed professionally in regional Australia.



CSU has a strong environmental capability and is one of the two largest Indigenous educators in Australia. Together we have the multidisciplinary expertise and experience to make this work. CSU credentials are displayed in above infographic.

Concluding comments

We can no longer afford to procrastinate on sustaining water supply to the inland. We do require the change in mindset from whether to what and how. As a smart country we ought to be able to find the solutions. It is time for action NOW.