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Murray Darling Basin Inquiry

In order to make a submission on the impact of the Murray Darling Basin Plan in Regional Australia I have used the terms of reference the senate standing committee on rural affairsand transport as I feel it will better clarify the submission.

Terms of Reference

The management of the Murray-Darling Basin, and the development and implementation of the Basin Plan, with particular reference to:

(a) the implications for agriculture and food production and the environment;

(b) the social and economic impacts of changes proposed in the Basin;

(c) the impact on sustainable productivity and on the viability of the Basin;

(f) the opportunities for producing more food by using less water with smarter farming and plant technology;

(h) means to achieve sustainable diversion limits in a way that recognises production efficiency;

(j) any other related matters.

This document is about exploring a concept that I feel through my experience as a forester, conservation manager, landowner and land manager will have a more holistic approach to the basin management that is not being explored at present. I would like to start by informing the committee that a number of the terms of reference will be discussed in this document namely items A, B, C, F, H and J. Also within this document there will be very little use of scientific evidence as none of us has the time nor the energy to wade through the limitless amounts of information that has been published on a number of concepts that will be drawn together in this document as they can be supported by large numbers of state and federal agencies and there information sources.

I have recently completed a 4000km road trip through the NSW section of the Murray Darling Basin for the express purposes of learning what the current situation is from a number of perspectives. That trip involved travelling the length of the Great Dividing Range on the western slopes and then following the Murray River to Mildura before heading north and east to complete the circuit.

The implications for agriculture and food production and the environment

The Murray Darling Basin Plan is a process drawn out of the Water Act 2007. This states that the MDBA is responsible for the future management of water function and assets within the basin and has no course for managing any land or natural resource management issues. And that is fair enough as it is a big enough beast that they are involved in. The staggering part about mention of this seems to be that every other land management or natural resource management agency and minister is happily standing in the grandstand and watching what is going on rather than taking the opportunity to combine various initiative together to obtain a much greater far reaching outcome for those people that are going to be affected.

Fact: The Murray Darling Basin cannot be managed purely by water alone as part of the basic hydrological process involves soil and trees.

Fact: Currently, farmers are of the belief that they have improved their processes and have had to adapt to function in the face of a variable climate.

Most are extremely efficient at what they do from cropping point of view and that could be animal or plant cropping. So they are correct in that they have made efficiency gains of some sort. Most are also only looking inside the cropping framework and are failing to consider other forms of land management that will improve and support their current activities and indeed improve future stability in what they are producing while creating another source of income. This in turn would help stabilise many rural communities by diversifying the economic base thus future proofing farmers land, livelihoods but also regional Australia.

The implications under the current thinking for the future of the Basin plan proposals are devastating for regional Australia from an agriculture and food production point of view. If the silo approach to the basin plan and subsequently land management is going to continue then the impacts that are being mentioned inside then plan will take place. The effects will shut down large parts of rural Australia. I would propose a multiple land use option for farmers. The reasoning for this is to have a component of the individual property that helps manage the environmental elements of soil temperature, water storage, carbon storage, fertility recharging, salinity etc. The rest of the property can still be managed actively for the respective crop. Using this method though a farmer can reduce the water allocation levels required to maintain a smaller cropping area. By then stabilising other parts of his property the physical land will be more resilient to temperature, water or seasonal fluctuations thus better supporting the farm crops and should lead to a higher success rate of the cropping that is undertaken.

Social and economic impacts of changes proposed in the Basin

The MDBA is charged under the Water Act 2007 to optimise economic, social and environmental outcomes and to maximise the net economic return from the basin's resources. With proposed reductions of 3000GL/y to 4000GL/y the MDBA is stating that if there modelling is correct that the lost economic production will be in the vicinity of $800 million. That production loss is only relevant IF nothing is put in place to replace that loss. Under the current proposal that number WILL eventuate. The reason for this is because the MDBA only deals with water management and not land use or natural resource management. So therefore the MDBA is in contradiction with itself as it has no mechanism to be able to factor into the outcomes a positive result using economic, social and environmental factors. There will be positive factors for the environment which is sorely needed and of which I am in full support. However, I believe that but coming up with a solution of changing land uses on part of their property's, farmers can enter into alternative crops such as forests, preserve environmental factors such as fertility, water storage, carbon storage etc and have NO adverse social or economic repercussions. The current basin plan cannot achieve this.

Another issue that seems to have gone under the radar with reference to the farmers is the level of indebtedness, poverty and reduced household spending levels in the rural areas. As recently as this morning there has been a 400% increase over the last couple of years in the assistance that rural families are placing on organisations such as Vinnies to help with Christmas. Rural areas have had 7 to 10 bad years. The cash flow so to speak simply doesn't exist in rural economies. By placing demands on farmers to reduce water allocation levels further without offering a tool to change is going to push a number of farmers even harder into the vicious cycle of gambling on "the next good crop".

A lesson could be learnt from the decisions in March 2010 by the NSW state government when it decided to close River Red Gum forest activities in 100000ha of riverine environment around the Murray River in the states south. The outcome of that is a forest industry that has been completely wiped out. Currently the NSW state government is going through compensation for those businesses that were reliant on that industry. I would not like to guess at the amount of money that has been wasted because the state government failed to look at other options. A solution could have been to start an incentives program for farmers to plant River Red Gums given the levels of ground water that currently exist. While also cutting significantly the level of harvesting operations that take place for a period of 5 years and establishing a compliance group that monitored the waste of operations and if more than 10% of the tree harvested is wasted then that person will loose there licence. This would mean that wastage levels from harvesting operations are minimised in a state that can waste up to 40% of harvested trees due to poor management. After a period of 5 years and new forests were created then a percentage of that original forest could have a harvesting embargo put in place for a period of time and the process repeated so that the area, age and health of these forests is undertaken. Instead, we now have a 100000ha that will become a single aged unhealthy forest that no operations will be able to be undertaken and an entire industry is shut down and now also costing taxpayer's money. A little consideration of the bigger picture would have helped stabilise some regions rather than hurting them in the long run.

The MDBA is heading down the same path. By considering a land use change for property's the entire basin's health, productivity and ability to survive during time of climate variability would be increased while successfully achieving the objective of optimising economic, social and environmental outcomes and to maximise the net economic return from the basin's resources.

The impact on sustainable productivity and on the viability of the Basin

By condoning the current practices of carbon removal(productivity loss), irrigating during the middle of the day while the sun is out(evaporation loss) and a focus on single land use for farms there is no possible way for a piece of land to be sustainable and no way for the basin to remain viable as a food producing region. During the 1930's and 1940's research was done in NSW by soil scientists and they discovered that up to 90ton of topsoil was lost during the production of 1ton of wheat. Soil formation processes will not replace that. Since the basin was opened

up for agriculture and the basic environmental processes of floodplain renewal were changed the system has been in decline. Since forests have been removed(yes that was forests) the levels of carbon storage and thus fertility levels and thus productivity levels have decreased to levels around 10 to 15% of what they originally were. This means that to improve productivity a farmer simply has to spend vast amounts of money on fertilisers just to maintain production and then they are still at the mercy of the weather gods. If some or all of the natural environmental processes were still in place farmers would spend less money on fertilisers, have a higher level of soil fertility and carbon and in ground water and these areas could be used to self feed the rest of the property if designed well.

If you were to track production levels from farms during the 1920/30 and 40's there would be higher figures than today even with crop, practice and genetic improvement etc. This process can be reversed. The basis for this reversal lies in the principles of permaculture. Peter Andrews in his book's "Back from the Brink" and "Beyond the Brink" describes the basic measures that can be taken to improve the productivity levels and restore some of the basic land functions to a property while still being able to carry on the main crop or land use of the property.

Sustainable production doesn't exist now due to European farming practices but can exist with a change in peoples definition of sustainable farming. True sustainability not more efficient in what I do.

I do believe that the levels that the MDBA has set themselves of 3 to 4000gl/y will make the basin sustainable from a water perspective only. Viability of the basin as a food producing region will only be possible if land use/management practices are changed for complete land systems.

Opportunities for producing more food by using less water with smarter farming and plant technology

Fact: Farmers think that it is their right in the basin to use water however they see fit. If that means irrigating during the middle of the day and potentially opening up massive losses due to evaporation they will.

Fact: If water is flowing past their property farmers will take water even if they know they will be going over their allocation. Living for the now and blatantly ignoring agreed allocation levels.
It is my belief that greater consistency of crops can be achieved by changing part of the land use of a farm into forests. Over time the forests will stabilise water tables evaporation levels, improve carbon storage and fertility levels, lower ground temperatures and create a higher probability that the crops that are put into the ground will have a better chance of success than they currently do.

By this reasoning I think it is possible to produce more consistent levels of crops with less water than is currently being experienced. Water and farming practice gains in efficiencies will only further improve this equation. In following this process the cost to produce these crops should be significantly reduced as high input costs are removed eg fertilisers. Not only is this possible but I also think that with the

correct holistic approach to this problem then no one element or group will be loosing out in any way as all elements of the plan and its management could improve the economic, social and environmental components.

The infrastructure improvements that are being undertaken by the government as part of this process are an essential part of becoming as efficient in water management as possible and will only benefit the basin plan.

To achieve sustainable diversion limits in a way that recognises production efficiency

If farmers and land owners were to sign up for a program of land use change to future proof their property against the volatility of current and future weather patterns through a process of reforesting part of their property then they could have a portion of their water allocations dedicated to the irrigation of the newly planted forests with the balance of their allocations used for crop irrigation. This would allow for the government to obtain those allocations used for the forest establishment after a period of time at no cost to the government and that would become allocations for environmental flows. This program could be done very cheaply. If the government were to pay for the cost of the plant seedlings then they would forego the cost of purchasing water allocations after that date.

In the future it could become a requirement for farmers to accept such a holistic land management approach in order to qualify for tax incentives or assistance packages. This would be rewarding those for undertaking such changes to create the lowest possible burden on taxpayers. If the majority of farmers within the basin were to in effect surrender 10 to 20% of their properties to reforestation land use and over time these allocations reverted to the government then a reduction in the diversion limits would be in excess of 3000 to 4000gl/y. An all of this could be done sustainably with a greater tolerance for extreme weather conditions and patterns.

any other related matters

The MDBA in its draft plan has done an excellent job in coming up with a suitable process and target for the resurrection of the greatest food producing region in Australia given the level of water abuse that the region has sustained for decades. This process and the corresponding decisions are some of the strongest that need to be made in the history of Australia.
The downfall to the entire process is the fact that water is the only topic of inclusion in the plan.

There are other possible solutions to a number of the problems that the plan is trying to rectify and many more if people are prepared to look at a bigger picture.

Proposal in short
Farmers/landowners agree to change a portion of there farming activities into forests (not landcare initiatives but forests). The same portion of water allocations then is guaranteed to that farmer for a period in which the forests need to become

established with environmental waterings. After that set period the farmer surrenders that portion of their total water allocations to the government at no cost as the government has paid for the forest creation (giving a little to get a lot back). The perfect time for trees to be planted is when the soil is moist as is the case now. Only accredited foresters are allowed to undertake the planning and management supervision so as to avoid costly wastage (insulation program). By creating a significantly bigger forest industry the potential is there for carbon credits (only when the international community sorts itself out and not before).
This would help stabilise regional communities and create a broader economic base for rural areas to rely upon. It would also help to reduce greenhouse emissions and planting could be done at low cost options (numerous possibilities exist).

This proposal is not meant in any way to be slanderous to any particular group or organisation mentioned in this proposal. What this proposal is about is the day to day realities of what happens in the Murray Darling Basin and its current management struggles and its possible future.

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