

NWF-02

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Professor Jane Doolan,
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National Water Reform Inquiry,
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Dear Professor Doolan,

Late submission to the National Water Reform Inquiry

I am writing to ask that I be permitted to make a late submission to the National Water Reform Inquiry which has just been drawn to my attention. Especially over the past 20 years, I have taken a keen interest in water management in the Lockyer Valley which, in 1937 was one of the first areas in which groundwater was used for irrigation. I came to Gatton College in 1943 and have spent most of my working life in the Valley which some of my colleagues and I regard as a microcosm of the Murray-Darling Basin. I was away for three years at Qld University (B.Agr.Sc) and then for four years (1951-1954) at Pittsworth on the Darling Downs as a soil conservationist.

I returned to the then Qld. Agricultural High School and College in 1955 mainly to train soil conservationists but was Lecturer in Agronomy for 12 years before being appointed Senior Lecturer in Soil and Water Engineering in 1968, with particular interest in soil conservation, water conservation, irrigation, drainage and land use. I completed a M.Agr.Sc. degree in 1968 and a PhD program in 2007.

In 1972 I had the good fortune to spend 6 weeks in Britain (mainly studying drainage) and then 6 weeks in Israel attending a course on irrigation in arid zones at the Volcani Institute. At that time, the main interest was in trickle irrigation which had just been introduced and offered scope for increased irrigation efficiency. At the end of the course, I was given a 1970 copy of The Water Laws of Israel which may be of interest to the present inquiry here. These had been devised after 7 years of wide public consultation and were adopted in 1959. Aloni (1970) provided an introduction to the Water Laws and I will attach a copy of his account.

It is likely that some aspects of these laws have application in Australia and may help to explain why so little progress has been made here in managing our scarce water supplies. It is made clear in the first paragraph that the water resources of the State are public property, subject to the control of the State. In section 5, a person's right to receive water from a water resource is

valid so long as the receipt of water from that resource does not lead to the salination or depletion thereof. "Depletion of water resources" includes the lowering of the level of water, whether above ground or underground and the impairment of the practicality of raising water to the surface or of conveying water from place to place (item 6, Chapter 2).

It was possible to enforce these laws because of a Water Metering Law which had been passed in 1955. Item 2 of this law states that "a person shall not supply water except by means of a metered supply" and this applied to all water use. To apply laws like this in Australia, it would be necessary for the Commonwealth Government to take a leading role in water management and it could delegate some of its powers to the States. But by enacting the Water Metering Law, Israel ensured that water management would be based on science: i.e. on demonstrable knowledge, rather than on guesswork, politics or opinion as in Australia.

In the Lockyer Valley, after irrigating for 80 years, we still do not meter all water use for irrigation so we do not know how much is available, its source, and who is using it, but we do know that "the Lockyer Valley is recognised as a stressed groundwater area, with groundwater use continuing to exceed the estimated sustainable yield" (QG-NRM 2005, p. 2). Part of the problem is that the water is supplied 'naturally', but the natural system is not understood by NRM officers. Water management is a contentious matter in the Lockyer because water meters were installed in parts of the valley as a revenue-raising mechanism rather than to ensure that water use is sustainable and equitable.

Having read Daniel Connell's book "Water politics in the Murray-Darling Basin" I am convinced that an important reason for the failure of many water management initiatives in Australia is that water management is seen as a political matter which can be based on opinion, whereas in fact, it is a scientific matter which must be based on 'demonstrable knowledge'. As all catchments are different, the only way of demonstrating that the management system is sound is to measure all water use and determine the effect of this level of use on movements of the water table in the alluvial areas where most of the water is used for irrigation.

I would be interested to know if the Productivity Commission would agree with this approach and if it would welcome further submissions in a similar vein.

Yours faithfully,

J.C. Galletly. PhD.

Agricultural Ecologist.

References

Aloni, S 1970, *Introduction to the Water Laws*, 2nd edn., Ministry of Agriculture, Water Commission, Hakiryia, Tel Aviv.

QG-NRM, 2005, *Discussion paper – declaration of the whole Lockyer Valley as a sub-artesian area*, Queensland Government, Natural Resources and Mines.

Attached.

I-01 (JCG-54 Aloni (1970) (as above) and parts of the Water Laws of Israel Chapter 1 and parts of Chapters 2 and 5.