Address to the Australian Salinity Action Network seminar
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I want to start by admitting to you that I don't have a technical background in salinity or hydrology – I am not a scientist and I don't profess to have expertise or qualification I don't possess.

I do however recognise that the problem we have come here to talk about today is a) not a new problem and b) is not a problem that can be treated in isolation from many of the problems that are effecting the sustainability of our farming systems in Australia.

Now, the word sustainability is one that is bandied around and it has almost become a throw away term.

So before I use the term again I am going to define what sustainability means to me – because sustainability means many different things to many different people.

The context in which I use sustainability is relatively simple – land and water are two of the natural resources we use to produce food and fibre.

So sustainability is the management of these natural resources to facilitate continued economic production of food and fibre.

This definition comes from a consumerist perspective – consumers are only willing to pay so much for certain goods – if production becomes uneconomic - i.e. if it costs more to produce goods than consumers are willing to pay and demand disappears, then production has become unsustainable.

The bottom line of sustainability is the ability to managed natural resources in a manner that will facilitate economic production – and if you loose the economic sustainability then you loose environmental sustainability.

Our society is based on transactional economics and has been for several thousand years. We have to accept that everything has a cost / benefit valuation attached to it.

We can't escape from the fact that everything costs something – both directly and indirectly - and that if we want to spend money on the environment, then the environment has to pay its way.

Salinity in its various forms is a symptom of practices – much modified over 200 years – that are proving to be ultimately not well suited to the majority of places in which they are carried out.

That point not withstanding, our farmers have done a very good job of making a silk purse from a sow's ear, so I am not bagging farmers as many like to do when they are pontificating on 'sustainability' issues.

The development of sophisticated societies depended upon the ability of farming to produce food and clothing in surplus (that is surplus to the needs of the producer), allowing others to specialise in activities other than farming. Farming in Australia – and in any part of the globe where agriculture is practiced – is a response to market demand for food and fibre.

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In western societies, approximately 98% of the population are 'consumers' and it is for them that the producers of food and fibre toil, for consumers are the ones with the demand, in the supply and demand equation.

So what is the point?

Rather than demonising the producers as the villains, we should all share the responsibility for the farming system problems that we face, because it is we – the consumers – that created the economic and market demands that have forced producers into practices that have led to the problems we have today.

Farmers did not intentionally go out to damage the environment and they have not grown rich and fat on the spoils.

It is us – the consumers – that have grown rich and fat on the back of land and water degradation, because we have demanded more and cheaper food and fibre – and it is we who have forced farmers to become unsustainable.

In OECD economies the real cost of food – as a percentage of disposable income - has fallen by an average of 1% per year since 1960. What used to be luxury foods in my childhood are now commonplace – and I am not even old!

Consumers continue to benefit from farmers toil - so responsibility for sustainability must be shared all along the food chain.

Now we all know that the best way of sharing responsibility is by actively involving people in proposed solutions, but I shudder when I hear politicians, bureaucrats and interest groups talk about vast sums of money being spent to 'fix the problem of salinity'.

At this point it may be appropriate to point out that the Agribusiness Association in conjunction with the Australian Agricultural and Resource Economics Society, publish an online journal called Connections – specifically for research into the economic aspects of resource management.

For the development of this address I have drawn upon work contributed to Connections. In particular a common theme of many papers – namely that measures to address natural resource management problems have to be economically responsible.

Now if natural resources are damaged but not irreparable, you have a couple of options. You can invest time and money to bring the resource back to an economically sustainable state, or you can change management practices to suit the altered state of the resource.

But if the state of the resource is such that the investment required to bring it back to sustainability cannot be justified economically – i.e. the investment will not provide an economic return - then just like any investment that is uneconomic, it should not go forward.

I want to quote from a paper that we published in the Summer (December) 2001 volume of Connections by Alistair Watson – titled "Dear Taxpayer: Send Money"

> *When the 'salinity tree' is given a shake, many proposals to tackle problems of dryland salinity fall out, ranging from recommendations based on well-researched scientific and economic analyses to the more common, apparently simple solution from salinity fixers that could be summarised as: 'Dear Taxpayer, Send Money'.*
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> *Unfortunately, the recommendation to spend more and more public money on dryland salinity programs is often unencumbered by much consideration of the human, technical, economic and institutional aspects of Australian agriculture that are critical to solving environmental problems.*
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> *Even more unfortunately, the Australian Conservation Foundation (ACF) and the National Farmers Federation (NFF) have also been attracted by the spend first and think later approach. A defining event was the joint ACF/NFF proposal to spend AUD $65 billion over 10 years on mitigation of dryland salinity and other land management issues.*

It has been suggested that if this proposal had been accepted, the result would have been "one of the most poorly conceived, unproductive and wasteful programs of public expenditure in Australia's history."

Watson – I believe correctly – points to what he calls the, *spend first think later* model of policy development and implementation – throw enough money at a problem and it will be fixed.

In a paper titled *Harry Potter and the Pendulums of Perpetual Motion: Economic Policy Instruments for Environmental Management,* David Pannell, from the University of WA, discusses the role of economic forces in addressing resource management issues, seeing them as preferable to spend first think later policies.

And I quote from Pannell.

There was a time, not so long ago, when "economics" was something of a dirty word in environmental circles. In Australia during the 1990s, the "landcare" movement brought a new emphasis on sharing and caring rural communities making generous sacrifices for the good of each other and of the whole community. Perhaps this contributed to the negative attitude towards economics, tainted as it is with some unsavory human qualities -- greed, selfishness, narrowness and hard-heartedness!

These days, economic aspects of landcare and environmental management seem more respectable. There is clearly a greater recognition of the relevance to the environment of at least some of the ideas of economists. More cynically, there also seems to be an expectation that dressing environmental concerns in economic robes will help to capture greater resources from the public purse (and possibly the private sector) for use in environmental programs.

Most strikingly, there is a boom of interest in "economic policy instruments" or "market-based mechanisms", such as tradable pollution permits, auction-based systems, and environmental credits. Reflecting this boom, most relevant government agencies and departments are at least sniffing around the issue of economic policy instruments, and trying to work out what they are all about. A small number of these agencies have tried, or are trying, to implement schemes based on particular instruments.

What are some of the policy instruments that Pannell refers to?

The common feature shared by the various types of economic policy instruments is that they work by altering the financial incentives and/or risks faced by individuals whose behaviour is important (in this case, mainly farmers). The effectiveness of these instruments depends entirely on the strength of the incentive they provide relative to the strength of incentive that farmers would require in order to change their farming practices.

Possible economic policy instruments for environmental management include:

- *Tradable permits/tradable rights/auctions of rights or permits*
- *Enhanced tax deductibility*
- *Tax rebates*
- *Subsidies on particular inputs/practices*
- *Rewards for outcomes*
- *Regulation/standards/duty of care backed by penalties or taxes*
- *Cross compliance*
- *Cost sharing*

The options vary widely in terms of:

- *who benefits (farmers, other identifiable individuals or groups, the broad community);*

- *who pays (farmers, taxpayers, consumers, beneficiaries);*
- *ease of targeting incentives to where they are required;*
- *administration costs and other transaction costs;*
- *the amount of information and judgement required centrally to make the instruments operational.*

Some general observations about use of economic policy instruments in agriculture are pertinent:

Economic policy instruments cannot alter the overall desirability of a set of conservation practices (from a community-wide perspective), at least not directly. What they can do is help to increase the adoption of practices which are already socially desirable but are not being adopted for whatever reason. The economic instruments increase adoption either by rewarding farmers who act "appropriately" or penalizing farmers who do not. In effect, they redistribute the benefits and costs of the treatments such that farmers are given greater incentive to act.

An absolute requirement for use of any economic policy instrument to be economically efficient is that the total benefits (private and public) of the farming practices being promoted must exceed the total costs of implementing them. Indeed, they must do so by enough to exceed the administrative and other transaction costs of implementing the policy program. It is quite possible (and likely in some situations) for the overall costs of some approaches to exceed the benefits, especially where the practices are highly unprofitable on-farm or the off-farm benefits of on-farm treatments are low

If financial incentives are paid to farmers, they must be less than the resulting non-agricultural benefits. For example, if changes in a catchment would result in non-agricultural benefits valued at $1,000,000 then any payments to farmers intended to secure those non-agricultural benefits must be less than $1,000,000. If the payments equal $1,000,000, it means that farmers are capturing all of the community's benefits associated with the treatments. If the required payments exceed $1,000,000, it means that the changes are probably resulting in a net cost to the community, rather than a net benefit.

This last paragraph is key to both Watson and Pannell's criticisms of the previously mentioned ACF / NFF proposal.

What does the rest of the community get from its investment in resource management remediation – in particular what return on investment would taxpayers get for the $6.5 billion investment per year requested by these 2 groups?

If it's just to return the environment to its 'natural' state – with no economic benefit accruing to the investors (in this case the tax payer) – then the proposal deserved the treatment that it got!

No – buckets of money just wont do!

What is the role of government in solving resource management issues.

If we are honest, we have to admit that governments are hopeless at innovating, managing and problem solving. On the other hand, government are really good at creating problems, erecting 'roadblocks' and stifling innovation and inventiveness.

To be most effective, governments should restrict their activities to providing funds for research, disseminating information and removing the legislative and regulatory roadblocks that prevent innovation and the development of economic mechanisms that will provide the sustainable answers to the problems that face us today.

Lets just look at a couple of examples where state and federal laws actually prevent farmers from exploring more sustainable farming system alternatives.

I had the pleasure of chairing part of the recent Beyond Commodities conference that was held in Sydney last July. One of the speakers was Dr Neil Byron – a Commissioner with the Productivity Commission, talking about sustainability.

Byron pointed out that

> *….the recent National Land and Water Resources Audit showed that 2/3 of Australia's agricultural lands are unprofitable and 80% of Agricultural profits come from just 1% of the land area!*
>
> *How can farms become ecologically sustainable if they are not commercially sustainable? We have to develop farming systems where profitability is not at the expense of environmental management, and vice versa.*
>
> *All the impressive private voluntary activities could be more widespread and more intense if unintended obstacles and roadblocks were removed.*

Byron cites the following examples.

> *Pastoral leases were created to facilitate and stimulate pastoralism, but now we have the crazy situation where some lessees who want to de-stock, retain and encourage native flora and fauna, are told by State governments that is forbidden.*

And.

> *The Scotia sanctuary in western NSW had up to 50,000 feral goats on it for decades, but there was a huge fuss by the State government when they wanted to re-introduce a small population of wallabies, which had been endemic to the area, but had become locally extinct.*
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> *Conversely, we have the situation where lessees managed land very conservatively for 50 years, so that it is still in excellent condition and almost natural. As a sign of Society's gratitude for this custodianship, the lessees will be evicted so that the land can become a National Park – which may mean taxpayers pay for it to be managed less sensitively and benignly than before, by a ranger who visits there a few days each year!*

Dr Byron provided an example where an alternative land use – one that was both ecologically and economically sustainable – was prevented by stupid government intervention.

> *….a property in* (the) *Otways in southern Victoria* (where a) *family has been in the Tree-fern business for 80 years. They were propagating tree-ferns in glasshouses and growing them on their farm – former potato fields - but because it is a native plant there is a mountain of paperwork to be able to sell them within Victoria, yet more to sell them interstate, and even more paperwork to export them.*
>
> *So they now have a wholly owned subsidiary in Morocco growing Dicksonia antactica for the UK and European market, and on their own farm they are planning to grow the NZ species of tree-fern. Since it is an exotic, it is completely unregulated……..*

So we have the absurd situation where native Australian species cannot be propagated and commercialised – but where there are no controls over the introduction of a non-native species.

Dr Byron also pointed out where the taxation system actively encourages unsustainable farming systems – if we used the NLWRA audit as a guide – and discourages any alternatives.

> *The Taxation issue is extremely complex, but here is a simple example:*
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> *You own a property, build fences and install watering points for cattle. All the expenditures are deductible against income in various ways, often preferentially. But if you do exactly the same thing to manage kangaroos, no concessions at all – it is Private expenditure.*
>
> *If you have a small farm that generates income, there are all sorts of concessions available; but if it is a bush block for biodiversity conservation, you are not (given access to the concessions) – because it is not generating (substantial) income.*

As I have though about the issue of sustainability over recent years, I have often wondered about the inability of so many so-called leaders and policy makers to see that the answer to many of these issues lies with the natural resources themselves.

Unfortunately we still have a Euro centric perspective of our environment - things native are natural and not to be used or commercialised. However, where there is no economic incentive to preserve natural resources, native fauna and flora are effective 'worthless'.

Why don't we use native plants and animals as a sustainable resource - as the native Australians did for many thousands of years before us?

Why don't we used native Australian plants and animals in the same way we use plants and animals that were once native to other parts of the world?

A segment in a recent ABC 7.30 Report looked at the impacts of the current drought and highlighted the influx of kangaroos to the last remaining water on a series of properties in western NSW. The report featured Dr Brian Archer from the Australian museum who talked about the sustainable use of kangaroos – in preference to sheep and cattle – for meat production in marginal areas.

Dr Archer noted that kangaroos are actually more efficient users of feed than their introduced competitors and that it made good ecological and economic sense for farmers in certain areas to have the freedom to farm the native species in preference to the less sustainable alternative.

Critics maintain that once we start to 'farm' native flora and fauna extinction of these species is guaranteed. There are two massive galaxy sized holes in that argument.

Firstly, Man being what he is, cares more for what has value to him that what doesn't. How do you preserve something that has no value in a value driven society?

Secondly, I am not aware of any species of plant or animal used for farming that has ever become extinct – it's only the species that are of 'no value' that are at risk – for obvious reasons.

The Campfire program in southern Africa is an example how mans' self-interest can be used to protect native flora and fauna. Under that program, local communities derive income from the preservation of plants and animals.

Where the program is operating, species that were once threatened by cattle and goat grazing or cropping are now 'safer' because it is in the interests of the people to preserve them. They are deriving their income from their exploitation.

And in this case exploitation doesn't means rape and plunder – it means sustainability.

What has this to do with salinity you ask?

Everything – Because salinity is one of the outcomes of farming systems that have become ecologically and economically unsustainable in many areas in Australia.

We need to have a hard look at the systems and what we produce – the cause of the problems - rather than talk about how much money we can spend on the symptoms.

We need to listen to the likes of the authors I have cited and others, who are telling us that we need change – but that we are looking in the wrong direction.

The answer is not *spend first think later*.

We need innovation and invention – we need to remove the roadblocks that prevent the farming industries from evolving.

We need the development of new products and markets – that suit our natural resources.

We need a change of attitude toward our natural resources – we have to give them a value so they can be valued and used in a sustainable manner – for the benefit of us all.

The answer lies in front of us – all we have to do is see it.

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