



## **KICK 10% OF FARMERS OFF THEIR LAND: ! OR ?**

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### **Abstract**

The paper examines the social reasons for the occurrence of land degradation under agriculture, and the basic system constraints that produce it. The basic changes needed to improve agriculture and the environment are identified.

### **Introduction**

A view has been promoted that 10% of the most marginal farmers should be taken off the land. The main justification is that drought subsidies simply prop up non-viable enterprises and continue the land degradation. Another justification is that subsidies distort the market and suppress the development of viable alternatives. Both are reasonable conclusions, but do the recommended changes actually provide a solution?

### **Historic Situation**

The historic situation is that governments promoted agriculture across as much of the land as possible. This partly reflected the desire to make profitable use of the land and partly the desire to ensure white occupation. Support for graziers was provided even where enterprises had been identified as being financially non-viable so as to keep farmers on the land. This support included routine government services and the development of infrastructure, as well as exceptional support such as drought relief. The construction of dams was routinely used to enhance election prospects and extraordinary means were often used to demonstrate their commercial viability.

This development of what are now regarded as non-viable enterprises was also promoted by government schemes such as the Soldier Settlement Scheme. The small landholdings established to provide work for returning soldiers were rarely viable.

Later government schemes promoting land development appeared more rational but still involved increasing the number of farmers by reducing the sizes of the landholdings. Scientists and economists were involved in determining the sizes of farms needed to provide a living area in different environments. Calculations for grazing lands were usually based on high wool prices hence many farms became marginal or non-viable when wool prices crashed. Calculations for irrigation areas were based on commodity prices when Australia had privileged access to markets in the UK, and this similarly caused difficulties when the privilege was removed. The government initiated reductions in farm sizes arose despite the knowledge that production limitations arising from the variability in the Australian climate were best countered by having large landholdings and/or a number of landholdings in different locations.

The land use issues now being addressed were caused or exacerbated by government initiated structural readjustments, and the solution being proposed is government initiated structural readjustment. This raises the question of why outcomes from implementing current

suggestions should be any better than in the past as the suggestions derive from the same sources, public scientists, economists and administrators.

It appears that hopes rest on the application of a new tool provided to governments by economists and scientists, namely market based instruments. Governments are attempting to place a dollar value on all aspects of land use including the environment. Salinity provides an example where the NSW Government has advertised salinity credits for sale they say they achieved against their regulations. This represents an attempt by a government to obtain financial profit from constraints and costs they have imposed on farmers.

The government regulations addressing salinity, and hence salinity credits, are based on levels of stream salinity wherein the major irrigation areas are meeting the requirements by accumulating salt in the soil. As such accumulation of salt has historically been the reason for the eventual demise of most irrigation systems around the world the market based instrument is perfectly designed to destroy the main commercial system it is meant to protect. It is also guaranteed to damage the environment for native species. While destroying the environment, and hence the foundation for food production, the State is seeking to obtain commercial profit from their regulations that impose a cost or penalty on others.

Water rights provide another example whereby a system has been established to entrench the rights of some to water produced by others where the producers obtain no benefit. Indeed, producers of the water are being penalised by way of their rights to water that falls on their land. This has environmental as well as commercial consequences as remediating adverse land use impacts generally involves improved use of rainfall where it falls. Government controls on land management based on the premise that the State owns every drop of water as soon as it hits the soil will promote ongoing land degradation.

Carbon credits are yet another market based instrument that attempt to provide an economic solution to an environmental problem. Carbon credits focus on industrial sources and sinks for carbon despite soil carbon being the single greatest labile pool. The increase in atmospheric CO<sub>2</sub> could be completely redressed by building levels of soil carbon under agriculture where this would additionally provide large benefits to food production and health. However, soil carbon credits are difficult to administer, and attention to them is contrary to the interests of several major industries.

The Australian government has chosen to focus on the use of engineering methods to sequester carbon in direct support of the coal and power industries. While Government policy requires that companies contribute at least 50% to research receiving government support this requirement has not been applied to the coal industry. CSIRO has been required to redirect resources. Viable alternatives are being ignored and/or suppressed by government through this pandering to vested commercial interests. Even if atmospheric CO<sub>2</sub> was the cause of global warming it would not be effectively addressed by the current approach.

This subsidy to major industries by the Australian Government is effectively being paid for by farmers. The ability of Australia to meet Kyoto targets for net carbon emissions derives mainly from an administrative situation whereby the production of CO<sub>2</sub> from land clearing prior to 1990 is an item in the carbon budget. Australia's good position arises from past clearing by farmers, and recent controls placed on land clearing resulting in the regeneration of woody vegetation exceeding clearing. In claiming the carbon sequestered with this regeneration of woody vegetation the Australian Government has appropriated a resource that legally belongs to the landholder. There has been no acknowledgement of the farmers ownership of the carbon, except recently by a court, and hence no consideration of compensation for the appropriation of the resource.

Mid last century farmers were identified as nationalising their losses and capitalising their profits. They were identified as being parasitic on the community. The situation has reversed such that farmers are now subsidising major industries while they struggle to remain viable and are expected to address public concern about land use impacts.

### **Which 10% to Remove, and to What Effect**

There are marked differences between irrigated and dryland agriculture and the proposals for 10% usually relate to dryland agriculture. However, economic discussions mix considerations of drought relief with salinity associated with irrigation. If only irrigators are removed then a small area of land is involved, but this does not address drought relief. If the 10% relates to dryland agriculture then it could involve removing farmers from around 50% of the existing agricultural land.

So what happens to the land so vacated? Assumptions that it will self repair are unjustified and usually invalid. Moreover, a lack of management of that land increases risks elsewhere. Salinity is not constrained by paddock boundaries, and nor are fire, weeds and vermin. Saving the costs of drought relief introduces much higher costs of having to establish an alternate land management system. Given the suggested lack of production on the land, the costs of remediation and ongoing management must be borne by the public.

Most conservationists<sup>1</sup> consider that, as the environmental damage has been caused by the land use, it can be remediated simply by removing the land use. That is, native vegetation degraded by grazing will regenerate to what it was by removing livestock and excluding commercial land uses. This view is false on two counts.

When left alone degraded land does not self repair, at least not within a reasonable time frame (Tunstall 2008). Indeed, it is inevitable that some will continue to degrade due to the constraints imposed by plant life cycles. The realised outcome depends on the condition of the system and the stage of development of the components of the vegetation. The outcome is not readily predicted, and certainly cannot be predicted by applying the knowledge used in existing models of vegetation development.

If the vegetation does regenerate, which is unlikely without an appropriate change in management, it will not be the same as the pre existing 'intact' or 'pristine' vegetation. Vegetation naturally changes without there being any land use impacts, positive and/or negative. Expectations that it will return to some prior state are unrealistic. The occurrence of a major impact, as has occurred with grazing by livestock, means that it is effectively impossible for the vegetation to return to a prior state. Given this situation the lack of knowledge of what the prior 'natural' state was is not directly relevant when addressing practical applications.

The effect of removing 10% of farmers from the land depends on whether the land use is removed with the farmer. An economist would likely be satisfied with just removing the farmers as that can be associated with an increase in the size of existing farms and/or a decrease in the supply of produce where both have the effect of increasing financial viability or the remaining enterprises. However, retaining the land use is not acceptable to most conservationists as it does nothing to repair the environmental damage.

Governments have implemented both approaches. Some farms have been bought to allocate the resources solely to conservation. However, the main approach is to subsidise farmers in their leaving the land where this is associated with the vacated land resources being used by

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<sup>1</sup> Most claiming to be conservationists are preservationists.

other farmers. No government scheme addresses the environmental degradation, but the ones involving financial incentives currently promote continued land degradation.

## **What is the Alternative?**

The most useful point made by some opposing government support for farmers is that solutions arise through innovations by farmers rather than scientists, economists or governments. The subsidising of non-viable farming operations is therefore an issue as it can potentially disadvantage the innovative farmers. However, any such suppression is small compared with that arising from constraints proposed by scientists and economists and imposed by governments. Many impositions on farmers already exist, and many more are proposed. As restrictive regulations cannot provide a solution, benefit can then only derive through the perverse situation of the regulations forcing farmers to be more innovative.

The economic rationalism needed is that while farmers have to directly make a profit from the land governments do not. The responsibility of governments is to the land and community generally and this responsibility is abused where they use commercial operations to profit from regulations they impose. Such abuse also occurs through public research being used to direct farmer's activities rather than support farmers with their innovations.

The positive approach is to provide support to farmers to achieve desired objectives where this must address profitability as well as the environment. The need is to use knowledge and information to identify opportunities and produce sustainable systems rather than to condemn existing outcomes and use this as justification for imposing controls on farmers. With this approach the desired economic and environmental outcomes could be achieved through an environmental service industry but its implementation is constrained by the existing public administrative system.

Technical advice and services on agricultural production were previously provided by government but are now largely provided by industry. In contrast, the provision of technical advice and services on the environment have been a major growth area for government with industry effectively being excluded. Government administrators are well positioned to maintain this effective monopoly as they develop and police the regulations. They also control the disbursement of research and development funds and commonly develop commercial operations. Given the self serving nature of this arrangement it would be unwise for farmers to expect that their interests will receive priority over those that currently control their land use.

## **How did the Situation Arise?**

The current approach is based on short term profit (greed) wherein economists and scientists identify means of boosting short term profitability. All research and application effort is currently constrained by this often undeclared need to provide immediate monetary gain. This has infiltrated into governments wherein departments attempt to run as a business. Most departments addressing the land have developed commercial business activities to increase their size, where this is facilitated by their prescribing and implementing regulations and/or their privileged access to public funds.

The focus on short term gain almost invariably involves long term loss. While the short term gain is usually marginal the long term loss can be disastrous. With farming the loss occurs because attempts to push the system to increase short term profits degrade the existing resources, and most attempts to remediate the damage serve mainly to compound it. However, the same basic constraints apply to all systems. The focus on earning money by CSIRO has resulted in a marked decline in genuine and useful scientific research, and the organisation has

potentially reached a point where it cannot recover. The key resource degraded in CSIRO is research scientists who have been suppressed to the advantage of administrators.

## **What is Needed?**

### **Administration**

The adverse environmental impacts are largely a consequence of the controls by public administrators and advice from public scientists. While the focus with land degradation has been on farmers, it should be redirected to the public organisations that have constrained, directed and dictated to them.

The need for public scientists is to return to a focus on developing understanding rather than earning money and directly promoting the profitability of commercial enterprises. The need for public administrators is to work to the benefit of the community rather solely for themselves and the department.

Politicians obviously also have a role as they determine the flow of funds to government departments and public research organisations. They have to cease being slaves to commercial interests and genuinely work in the public interest.

### **Land management**

Populations of organisms have evolved to run at a profit as without profit there would be no growth or reproduction and the organisation would cease to exist. Profit is natural as it is essential for anything to be viable. However, unconstrained profit does not occur in any natural system as it destroys the system. Unconstrained growth of part of a natural system effectively results in its death.

The current approach to land management reflects the cargo cult of executives of large businesses who expect profit just for the asking and have no concern of the adverse impact of removing large chunks of resources from the system. The push for short term gains has produced a focus on what can be taken from the system with consequent disregard for what the system needs to remain viable. This inevitably kills the system, which is what has occurred with agricultural systems.

Modern agriculture is based on inputs, and these inputs have had to increase with the increase in land degradation. However, the inputs are solely directed at promoting the part of system that provides immediate profits. That is, one part of the system is being promoted to the disadvantage of all others. The combination of this imbalance and removal of resources means that the system inevitably dies.

Farmers have developed systems that allow the profitable harvesting of produce. These have the commonality of addressing the entire system. However, they have been neglected because of the push to maximise short term profits.

The solution does not lie in removing farmers from the land, or in providing subsidies that promote existing practices. It lies in retaining farmers on the land and promoting their transition to farming practices that build rather than degrade the environment. The direct benefits include improved viability of farmers, and improved supply and quality of produce. Indirect benefits include improved human health and conservation of resources such as flora, fauna, soils and water.

