# Webinar: Investing in Healthy Farms for the Future: a policy proposal

SUSTAINABLE FARMS

Monday 12 October 2020

The purpose of the webinar was to begin a discussion on the concept of using a revenue-contingent loan system (RCL) for the financing of farm improvement projects. The webinar had its foundations in a paper authored by Sustainable Farms Research Directors Professors Bruce Chapman and David Lindenmayer (available here), and invited responses from the National Farmers Federation Chief Economist and General Manager Trade, Ash Salardini, and Regional Investment Corporation Board Member, Mark Lewis.

## Webinar recording

A recording of the webinar is available on YouTube: https://www.youtube.com/watch?v=TDf4opsJ_-I

## Webinar summary

**Sustainable Farms Director Michelle Young** introduced the project. Sustainable Farms is a research and extension initiative of The Australian National University focusing on farms in the NSW Murray-Riverina, Central West and South West Slopes, and North East Victoria. The project's vision is to empower farmers to adopt practices that have a direct benefit for biodiversity conservation, as well as enhancing farm profitability and improving mental health and wellbeing. Sustainable Farms is a transdisciplinary project, with researchers in finance, mental health, ecology, statistics and social sciences, as well as a team of field ecologists and engagement staff based across the project area.

The field ecologists are out working on farms every day, as well as engaging with farmers one-on-one and through field days and collaborating closely with partners including Landcare, Local Land Services and Catchment Management Authorities. The field ecologists have been monitoring the biodiversity outcome of natural asset investments on farms over the past twenty years. With growing evidence for the multiple benefits of natural asset improvements, it's now time to turn our attention to future funding of these investments.

**Ecology Research Director Professor David Lindenmayer** highlighted the considerable challenge posed by the degradation of agricultural land. Globally, estimates suggest 2.9 billion hectares of arable land is degraded, potentially impacting on more than 3.2 billion people. The price tag for restoration of this land is estimated at $14 trillion. In Australia, the drivers of degradation for millions of hectares include extensive clearing, over-grazing, secondary salinity and soil degradation, with long-term impacts on food production and biodiversity.

61% of the Australian continent is utilised for agricultural production. Restoring historically degraded land is vital for future agricultural production, carbon storage and biodiversity but is enormously expensive, and current grant programs or stewardship funds will be unable to meet the demand. Sustainable Farms' focus is on restoration through enhancing natural assets – such as farm dams, shelterbelts, remnant vegetation, rocky outcrops and native pastures. While these projects are great for enhancing overall land condition, it can take many years to see a return, which makes conventional loans a risky proposition for farmers wanting to fund these types of improvements.

This is where Professor Chapman's work comes in. As **Sustainable Farms Finance Research Director, Professor Bruce Chapman** has been working with Professor Lindenmayer to come up with a proposal to address the challenges of financing on-farm natural asset improvements.

To date, governments have typically provided grants to farmers for investing in farm improvements. Around $2 trillion per annum is spent in Australia, a significant cost to the taxpayer and one which is inherently regressive (the relative advantage of the average farmer receiving subsidies compared to the average taxpayer results in the distribution of financial resources from less advantaged to more advantaged groups over their lifetime). The system also doesn't enable appropriate targeting of grants. So, the challenge for government is how to maximise the effectiveness of government spending on agriculture, while ensuring farmers have the agency to make decisions themselves about spending on farm investment projects.

On the opposite side of the coin to government grants sit commercial loans. Given the time taken to reap financial rewards from natural asset management, commercial loans can be difficult to access and also risk creating repayment hardship and debt stress related to the potential risks of bankruptcy and property foreclosure. Commercial borrowing will continue to be important, but RCLs have several benefits that means they are worthy of consideration as part of the financing mix for farm businesses.

Rather than requiring repayment on a time-dependent basis, RCLs require repayment dependent on the annual revenue of the farm business. The modelling that Professor Chapman and colleagues have done shows that the bulk of loans would be recovered with 5 years, based on farms repaying revenue contingent loans at a rate of between 2 and 8% of annual revenue. Conveniently, collection of repayments on RCLs is simple to achieve through the quarterly Business Activity Statement, demonstrating farm revenue, that all farms must lodge. Details are available in the paper by Botterill, Chapman and Egan (2004).

RCLs should not be seen as a replacement for commercial debt – governments are not in the business of replacing normal bank financing. But RCLs can certainly be complementary to commercial borrowing, enabling a private-public partnership: for example, in a commercial partnership, an RCL could provide the repayments during the period in which the financial benefits of an investment have not yet begun flowing.

**National Farmers Federation Chief Economist and General Manager Trade, Ash Salardini**, responded to the Sustainable Farms proposal, highlighting the synergies between sustainability and financial outcomes. In addition to sustainable practices leading to long-term higher farm outputs, the NFF sees further benefits to this relationship. Ash discussed some of the pros and cons of various means of funding, incentivising and/or certifying sustainability works. Ash agreed with the speakers so far in regards to the RCL proposal, and additionally highlighted the potential benefit for RCLs for young farmers and farmers who are asset poor, particularly those undertaking different forms of farming such as leasehold farming. There are a set of benefits to RCLs above and beyond those already mentioned int their application to farm risk management as a whole (not just environmental services).

More work needs to be done on natural capital management, particularly incentivising farmers to provide environmental services. RCLs could be a tool in a suite of solutions, though the NFF is neither explicitly endorsing or rejecting their efficacy with respect to natural capital management. This is the start of the conversation.

**Mark Lewis,** board member with the Regional Investment Corporation (RIC), provided a second response to the proposal. The RIC has around $4 billion available to provide concessional loans for farming, focused on decreasing agricultural risk and increasing drought resilience. RIC loans support projects such as improving water retention practices, fencing according to land systems, soil remediation, grazing modification, revegetation and more, targeted at increasing production, productivity and the resource base. Mark is interested in revenue contingent loans, particularly in relation to multi-peril insurance and farm income protection insurance for farmers. The full suite of risk management tools need to be integrated and brought to bear.

The current loan facilities offered through the RIC can be clunky, particularly in light of variable farm income and revenue flows. The RIC loans do have a 5-year interest-only facility followed by 5 years interest-and-principal repayments, but other options should be considered. The RIC will soon be launching an Agri-Starter loan to support succession planning in agriculture, and it would be great to consider the RCL idea as part of the thinking in developing this package.

In summary, having the right finance tools available is an excellent path towards enhancing sustainability and increasing the agricultural resource base, with the clear benefits to productivity that would flow.

## Audience questions and answers

### 1. How is farm net benefit framed, measured and how would the subsidy work?

*Answered by Bruce Chapman*

These systems can be designed with and without subsidies. The basic economics of public policy is that if there is a social benefit then there is a case for government subsidy. You can envisage the externalities of the properties being improved in all kinds of ways, David referred to climate change issues, so in the case where you want a subsidy, it would be justified on the basis of benefits that don't accrue to the individual farmer. An RCL system can also be understood to be without subsidy, and from previous modelling we applied a real interest rate on the debt to cover government cost of borrowing and found no budget losses from the system.

The paper by Boterill, Chapman and Egan illustrates how an RCL arrangement can be designed to avoid major costs to the budget through addressing issues of bankruptcy, inheritance and property sale. When these systems are designed, they can be designed without a subsidy, so it's not a critical aspect of this to think about it in subsidy terms, you can have it if you want, and you can justify it as spill over benefit to society. These systems are really about using an instrument that the government can deliver and the policy designers can make decisions about the existence or extent of subsidies.

### 2. Can you see any relationship between the RCL and the carbon income stream?

*Answered by David Lindenmayer*

That is a great question that needs a lot of thought. One of the issues is there have been surprisingly few true measurements of how much carbon there can be in some of the natural assets on farms. The little bit of work that has been done suggests that there is potentially a very large amount, partly because Australian trees in particular have a lot of biomass relative to how much moisture there is in the system, it's quite different from the rest of the world, and also a lot of our timber tends to degrade and decompose very slowly. One of the things we've been thinking about is that while we know we should establish shelterbelts to increase lamb success or provide more shade, there should be additional income streams from the carbon capture that is associated with that.  What's needed there is a methodology to guide that from a state and federal level.

The other thing that's important is that for example, renovating farm dams and improving their condition potentially has enormous impacts on reductions in greenhouse gas emissions from the agricultural sector. We know from the little bit of work that's been done by Deakin University that emissions from dams in poor condition are quite substantial, especially as they are very high greenhouse gas forcing emissions, particularly nitric oxide and methane, so there's a lot to be gained in terms of Australia's carbon account. I think farmers that are undertaking these kinds of investments and management interventions can make a huge difference. Rough estimates are that renovating a proportion of the farm dams in the Murray-Darling Basin alone would get us pretty close to the equivalent of the landfill sector in reduction of greenhouse gas emissions, so there are a lot of gains to be made here. These gains include better productivity and farm condition, better animal welfare outcomes for livestock drinking better quality water, as well as better greenhouse gas emissions. There's a lot more work to be done in that 'whole of farm' space in terms of carbon but also thinking about additional income streams for farmers based on how much carbon is being stored in their farm systems.

### 3. For young farmers who are just starting to build up farm business, do you think this kind of loan can be useful? And what if they've inherited a farm business that has already got a standard bank debt associated with it?

*Answered by Bruce Chapman*

Both Mark Lewis and Ash Salardini referred to the appropriateness of these kinds of loans for young farmers, and I think it's useful to put this in the context of the Farm Management Deposit scheme (FMDs). FMDs are basically a way in which farmers can use savings with tax subsidies from good years to be used in bad years eg, with respect to a drought. What a RCL does is the same idea, but it's the other side of the coin. It says, 'imagine you are going to have good years in the future, as reflected by revenue, would you like to take some of that revenue in the future and give it to yourself now, perhaps to finance an environmentally sustainable investment?' In this context an RCL is really the future side to the FMD coin and is particularly useful for young farmers because they wouldn't have established enough history to have substantial FMDs. So, I think the distinction between mature and younger farmers with respect to the benefits of RCL is very useful. I don't know if it matters if a farm is inherited with a commercial debt obligation, I don't think that that would get in the way of the appropriateness or efficacy of an RCL.

**4. Should Revenue Contingent loans be part of a suite of financial products available to farmers including stewardship payments? How would you see a revenue contingent loan sitting alongside existing grant programs and environmental stewardship, how could that suite work coherently?**

*Answered by Ash Salardini*

One of the issues with providing environmental services through biodiversity or carbon offset is that there are upfront costs that the farmer will have to pay and then the benefits or financial gains come many years afterwards and so there is a gap where the costs fall to the farmer and where the benefits accrue to the farmer. The revenue contingent loan would be the bridge between those two issues, as a first step, and would get a lot of people involved these environmental services where otherwise they might not. In terms of it sitting beside other programs, it's very attractive, not just from an environmental services perspective but a risk management perspective. It becomes a valuable source of whole farm income, particularly if we have markets for environmental services, and is an income stream that is not correlated with climate or weather which is very important for farmers, so it does sit quite well with the suite of measures in this space.

**5. Have you presented any of this work previously to government? What engagement have you had with Commonwealth and State governments around the RCL?**

*Answered by Bruce Chapman*

Engagement to date hasn't been formal, we haven't presented to government except on an *ad hoc* basis. I gave a seminar to Treasury economists four or five years ago, for example. I think governments over the years have been aware of what we've been doing with the modelling, we have spoken to some ministers over the decades about how all this might work, but it hasn't been taken up, nor has it been rejected. It's waiting for some enthusiastic responses! I think when we have groups like RIC and NFF showing positive interest that will be a big plus for the substance of this debate in terms of potential public policy action.

*Comment from Ash Salardini*

RCLs are being actively considered by government, beyond environmental services.

**6. Is corporate ownership a barrier to getting a revenue contingent loan?**

*Answered by Bruce Chapman*

Maybe, in principle. All the modelling we've been doing was on the basis of non-corporate farms, with a maximum average revenue of $5 million. Contingent debt can be handled in all sorts of ways, it's more sophisticated with corporations because they can move assets around differently, we haven't really done that much work on that side of it and details would need to be worked out.

**7. Is it possible to do a private sector version of this to trial its applicability? Could it be set up through some kind of fund, like a philanthropic fund or through a private financial arrangement?**

*Answered by Bruce Chapman*

The financing can come from anywhere, but the collection cannot. This is one of the critical points to understand about RCL and the role of government. Government has the legal jurisdiction to know what a citizen's income is, thus it can collect the HECS loan repayment, or to know what a firm or business' revenue or profits are, because that is the basis of taxation. That is not true for the private sector. So, while competition from the private sector is often thought to be a good idea, the institutional realities on the legal side of all this implies that the collection mechanisms would be the government's jurisdiction. However, you could have the financing coming from the commercial sector, philanthropy, or from a bank.

**8. How would the RCL relate to insurance products?**

*Answered by Bruce Chapman*

These instruments are all about insurance. They're about insuring against repayment hardships when times are tough. They are about insurance against foreclosure on a property, that is, insurance against default. However, the whole bigger issue of overall insurance against unpredictable vagaries of farm incomes isn't something we've ventured into, so I don't feel qualified to venture into an answer on the bigger picture.

**9. Have we looked at the idea of linking environmental health and property prices? Where are we at with measuring the benefits of sustainable farm management and recognising it?**

*Answered by David Lindenmayer*

There are a lot of dimensions to that question. It is possible to measure a range of change in condition over time and that can be done remotely, eg. via satellites and also on ground. On ground monitoring of change is really important. In terms of net benefits there is also a component of Sustainable Farms that looks at farmer wellbeing and farmer mental health and there is a signal in that work that the relationship between financial health and mental health is important, and also a weaker connection between farmer mental health and environmental condition of farms. In other areas, we are moving ahead with certification schemes and stewardship schemes and working out how management interventions may assist farmers in being able to have their products from the farm gate certified, and then be accessible to particular markets. So, there is a lot of thinking in this space not only in terms of financially sustainability but also access to other markets, especially in regards to supply chain legislation currently under negotiation in Europe. There will be other aspects in the net benefit space, and we haven't really touched on animal welfare yet, for example issues around animal shade as we start to experience more extreme temperatures, and also access to clean water. It's a complex space with many dimensions to it.

**10. For people to participate in a scheme like this, do you think there would need to be a baseline of environmental performance that the farmer has achieved to determine if they are eligible?**

*Answered by David Lindenmayer*

There would need to be an assessment about whether what was proposed was a reasonable thing for the geographic location (so, no penguin farms in Alice Springs), so there needs to be some vetting. There also needs to be monitoring associated with this, to understand: what is good practice? How do things change through time? And how do we quantify that? Knowing the answers to these questions is critical so there can be some confidence in the financial industry that what is being proposed to be done is actually being realized on the ground, and to ensure farmers have confidence that what they are doing is producing a good outcome. This enables credibility, and is really important, it's not just about a financial return on investment, it's about an environmental return on investment as well.

**11. How do we get banks to start viewing carbon as an asset rather than a liability?**

*Answered by Mark Lewis*

They already are.  This is particularly in the rangelands through Human Induced Revegetation methodology, banks are now having to deal with the issue of carbon revenue streams from properties. More particularly, how it impacts the valuation of the property. Banks are having to understand the impacts of these carbon projects on the business, so they are by default having to deal with this. Although it's not widespread yet, and still rather immature from the banking perspective, I do see it as a way forward and there are significant funds that could be coming into agriculture from carbon farming that will link in with insurance and contingent debt and other schemes as a wholistic package. I think we have a long way to go, but we are on the cusp of that, and it's a pretty exciting space to be in over the next 3 or so years. Again, I do see carbon as a driver, because carbon is very much linked to productivity, which is linked to the resource base and resource condition of the enterprise – it's all a circular loop, you can't take any one thing out of the loop, there are all related.

**12. Do you think we are heading towards a national approach to integrating finance for rural enterprises, where people have choice and opportunities around environmental outcomes as well as business outcomes?**

*Answered by Mark Lewis*

That's going to be driven by the revenue streams coming from alternative sources like biodiversity credits and resource-based revenue streams, so they will naturally have to come together anyway. I think it is a bit of a challenge for the traditional banking sector to have to get their head around, but it's coming, they are going to have to deal with it. Likewise, RIC will have to deal with it as well in terms of the way we look at our traditional banking model which is traditionally based on land-based asset securitisation, so we're going to have to look at these other revenue streams that have huge potential, and also increase the productivity of the resource base.

**13. The opportunities for young farmers to participate has been discussed. What are the panelists' thoughts in the role of contingent loans for the 60+ farmer?**

*Answered by Bruce Chapman*

We did some work on this with Michael Egan, who was a rural accountant, and the way this is addressed is by ensuring the debt is not tied to the individual farmer or the business owner – it is linked to the ABN and is a debt of the property. It doesn't matter if someone is on the cusp of not being a farmer any longer – if they are soon to be leaving the property or are elderly – because it isn't the individual's personal debt. It is linked to the ABN, and would need to be made unique so that there is only one ABN relevant to the debt. Critically, this provides confidence that the RCL system would work in the event of gifting, such as through inheritance, or through sale. Michael's suggestion was that a property's price in the event of sale would take the revenue contingent debt into account. Instead, it could also be a requirement that the RCL debt be settled in the event of a change of ownership – perhaps through a commercial loan. We believe it is all workable, and the paper co-authored with Michael Egan goes into some of the technical, nitty-gritty legal issues.

**14. Would it be possible to share the details of the CBA analysis which David has noted in his presentation?**

The paper arising from this work hasn't been published yet, but we will ensure it is circulated to webinar attendees and subscribers to the Sustainable Farms mailing list once it is available.

**15. Could revenue that is obtained from other sources of state/federal government funding – such as carbon credits or biodiversity credits – be used to pay off an RCL loan?**

*Answered by Bruce Chapman*

I think this would be a matter for government to decide, with the key question being, would such a flexibility compromise the intent of carbon credits or biodiversity credit policies?

**16. How would you avoid farmers using commercial debt facilities to pay down RCLs – or vice versa? This question is not so much about the debt itself (sitting on the balance sheet), but rather the use of the credit facility to pay off other debt. Same concept as using a personal loan to pay down a credit card debt.**

*Ash Salardini commented:* I would suggest that any debt would need to have agreement from the commercial bank (as per current concessional loans)

*Bruce Chapman commented*: There is no obvious reason why a farm debtor would use commercial debt to repay an RCL (since this would happen automatically with revenue streams), but it would certainly be useful for a farm to use an RCL to repay commercial debts. I think I tried to explain the benefits of this in comments on my final slide in the presentation.

**17. Would most farmers prefer to receive payment for environmental services or take on more debt to fund these types of on-farm activities?**

*Answered by Ash Salardini*

Taking on debt and receiving payment for environmental services are not mutually exclusive options. Debt has a role to play even where farmers receive a payment.

There is a gap between the cost of providing environmental services, and when farmers get paid, RCLs could be used to fill this gap. For example, meeting certification requirement for a piece of land that will form part of a biodiversity offset will incur costs to the farmer, as will the need for legal and financial advice. This could run into the hundreds of thousands of dollars. Benefits of biodiversity offsets do not occur till much later on, or until the offset certificate is sold. Debt can provide a bridge between when costs are incurred and benefits realised.

We would also like to see certificates etc. be recognised as an asset by banks and financial institutions. Currently, biodiversity offsets is seen as a devaluation of the land, reducing the farmers overall asset base, and consequently capacity to access debt. Thus in devising any certificate scheme, it should be done so in a way that a bank can recognise as an asset to counter the devaluation of the land.

**18. Have RCLs been applied to agriculture elsewhere internationally?**

*Answered by Bruce Chapman*

Not that I am aware of, but now is a good time to update the search! With respect to student loans, HECS-type systems originated in Australia in 1989 but have since been adopted by around 8 other countries and another four or so seem to be on the cusp of this type of reform.