

TRANSCRIPT

LEGISLATIVE ASSEMBLY ENVIRONMENT AND PLANNING COMMITTEE

Inquiry into Tackling Climate Change in Victorian Communities

Mildura—Thursday, 12 March 2020

MEMBERS

Mr Darren Cheeseman—Chair

Mr David Morris—Deputy Chair

Mr Will Fowles

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Mr Tim McCurdy

Mr Tim Smith

WITNESS

Ms Tanja Morgan, Program Manager, Mallee Sustainable Farming (*via teleconference*).

The CHAIR: Welcome to the public hearing. I just want to run through some important formalities before we begin. All evidence taken today will be recorded by Hansard and is protected by parliamentary privilege. This means that you can speak freely without fear of legal action in relation to the evidence that you give. However, it is important to remember that parliamentary privilege does not apply to comments made outside the hearing, even if you are restating what you have said during the hearing. You will receive a draft transcript of your evidence in the next week or so for you to check and approve. Corrected transcripts are published on the Committee's website and may be quoted from in our final report. Thank you for making the time to meet with the Committee today. Could you please state your name and title before beginning your presentation, Tanja.

Ms MORGAN: My name is Tanja Morgan. I am the Program Manager for Mallee Sustainable Farming.

The CHAIR: Fantastic. Over to you, Tanja.

Ms MORGAN: Okay. To start with I just want to thank you for the opportunity to talk with you today and to present MSF's story and role in the region.

As an introduction, as I said before, I am Tanja Morgan, Program Manager at MSF, but I am also a farmer based in the South Australian Mallee. My husband and I run a farm with our three kids, and we are grain, hay and sheep producers. I started my career in agriculture at about the same time MSF was formed and have been involved in some capacity throughout my entire career. I started with Primary Industries and Resources, and when MSF was formed it had the support of state governments to help with the administration and some extension to get the organisation up and running. After a few years I moved on from that to other projects and then eventually went out on my own. After about 20 years I found myself back at MSF, for the last three years managing the organisation. I have seen everything that MSF has been through from the inside and from the out.

Before I go on, I do want to say that this is a job I am extremely passionate about, the reason being that I believe low-rainfall farmers are some of the best farmers that we will see around. They have been dealing with climate variability and climate extremes since farming began, and to survive you need to continually adapt, continue to find efficiencies in what you do and learn to respond to environmental cues. Our farmers are very in tune with the environment and climate.

A little bit about MSF. I did send around the publication *Twenty One*, and that does contain a lot of our history. It has got a lot of photographs and it talks about a lot of the projects that we have been involved with. MSF is largely founded on climate adaptability and making sure that farmers can be productive and sustainable. Making the most of the upsides to ride out the downsides: this is what drought preparedness and climate adaptability is all about. MSF began in 1997 when a group of leading farmers got together and could see that there was a better way. It was all about wind erosion back at that time. No more dust storms: that was the goal that they were trying to work towards. Reducing cultivation and moving to no-till farming was the absolute key to that.

MSF is unique in the fact that it is a tri-state organisation. We are working across many different boundaries and many different government agencies, but we have a common theme to prevent soil erosion. In the early days we established three core sites, a cluster of trials in each state, to do the majority of the work. Back then there was a lot of state government support, as extension agronomists from each state did a lot of that early work before the organisation really got up and going. Later we would go on to expand our research to include focus paddocks, and this would involve more farmers in a participatory extension approach. For those of you who do not know MSF well, we cover 4 million hectares, and whilst we have rainfall and landscape in common, our soils can vary considerably. Having focus paddocks has really helped with the local adaptation of the research, so showing farmers how things could work on their own properties.

MSF was there to support farmers in the early days. It was not just about changing the seeders to knifepoints; it required more stubble in the system, the stubble then had to be managed for clearance and then you needed to look at the rotations and what sort of nitrogen inputs would go with that. You know, it was a shift to more

intensive farming, and the point I am getting at is that it was a whole system change. It was a complex change, and a lot of extension support was required to sell the messages. Quite often there would be more research questions that we would follow up as a result of that.

The research was farmer led and farmer driven, and it still is to this day. The bottom-up approach involving researchers and advisers always gives a better outcome as farmers can better direct the research right from the start, and the researchers and advisers are there to problem solve. Together the results were better adapted and more rapidly adopted, and we saw that time and time again over our 20-year history. The 2000s drought helped to provide the catalyst for farmers to adapt much more rapidly—there is no doubt about that—and MSF was there to support them to make sure that they succeeded.

While I am on this point, I want to highlight the negative public perception of glyphosate as a real threat to our sustainability. Glyphosate facilitates no-till farming, allowing farmers to control weeds without the need to plough the soil. It reduces tillage, it maintains soil nutrients and it improves water-use efficiency. This means healthy soils and high-yielding crops. Less tillage means less machinery, lowering fossil fuel use and greenhouse gas emissions. It is one of the safest products that we have in our toolkit. We need to make sure that in setting policy and direction we continue to give our farmers the tools they need to do the best job they can. That is just my little aside to that.

In the early days it was all about no-till and rotations, nutrition and variable-rate placement of fertiliser. The Mallee has been traditionally low input, and we needed to keep our farmers in business. When we were asking them to go more intensive they needed to manage the balance between applying more fertiliser and still managing the risk of that, so we tried to get them to really target nutrition inputs by understanding where to spend their fertiliser dollars, moving away from blanket applications of fertiliser and being really prescriptive with maps and fertilising for soil types. The GRDC farm practices survey showed that the Mallee has the highest uptake of variable-rate fertiliser application in the southern region, and it is sitting up at around 50 per cent. We are well in front of most other regions.

Now we are more focused on making our sandy soils, that make up about 30 per cent of our region, more productive. Making sure that they produce more in dry times has really driven a lot of soil amelioration work that has been going on, so looking at how we can keep that stubble retention there and have better management on the whole. We are also involved in weather station projects for better decision-making, dealing with frost management, using better adaptive varieties and agronomy, and these are just a few projects of the many that we are involved with. We have researched and communicated many issues over the years, but at the core it has always remained the farmer. Research priorities were set by the farmers and the researchers had their research reviewed by the farmers, and it was clear that we were outcome-focused right from the start.

This has not gone without any challenges, and I will just go through a few of those now. The withdrawal of State Government agencies left a hole in the delivery of some basic R and D extension. Not only does this leave a gap in delivery that groups like MSF absolutely must pick up, but it also leaves gaps in capacity in the regions. MSF has taken an unofficial mentoring role for some of these. As an example, we have new recruits coming to the industry, who would often come from the government sector mentored by older experienced agronomists, but there are fewer of these coming through and fewer experienced agronomists also left behind to mentor them. So farming systems groups like MSF are taking on this mentoring role in our regions to make sure that capacity remains. We are working with some of our NRM organisations to work with some of their new recruits to bring them in on projects, show them how to build things from the ground up, work with farmers, network and really see that through. It is an unofficial role that we have accepted and taken on.

Another thing that we are seeing is climate. We are definitely seeing the severity and duration of tough conditions continue. Not only have we experienced more dry years recently, but we are also seeing more frosts, which affect production. Back in the droughts of the 1980s and 90s there would have been no grain production and there would have been drift everywhere. This year just gone we have farmers that have received the same or less rainfall as in those early drought years, but they have reaped their seed back and they have kept their ground cover, and that is an astounding achievement. But there is an elephant in the room. We are not going to pretend that the dust storms are not happening. Circumstances have been tough, and it tests us all as land managers to get it right. Hard decisions need to be made early, and hindsight is a wonderful thing. I would like to add that two of our farmer directors live in the Millewa and have faced some of their toughest years. Their

farms are not drifting, and they still have ground cover after two years of drought, so we know that it is possible.

Making sure that research remains driven by the bottom-up approach and maintaining the survival of farming systems groups in a tough funding environment is really critical. We do not ask for handouts, but we just want opportunities to apply for funding to put us on an even playing field, and we know we can be competitive in delivering the best research outcomes to our farmers.

Where MSF's strengths lie, I think, is really in our extensions and in our networks. MSF is focused on great, leading farmer-driven research but also on effective and innovative extension practices. We have been at the forefront of bringing farmers together and bringing a systems approach to what we do. We do not just sell one-off research outcomes, but we bring the package together. Complex themes that rely on multiple layers of decision-making and participatory extension are absolutely key to that: involving farmers in the research and demonstrations, getting them to show other farmers how things can be done and talking them through what could go wrong—peer-to-peer learning is the most powerful. At MSF we have a real role to play in facilitating drought preparedness in our communities going forward. We have been doing it for years. We are a go-to organisation for local knowledge and networks. We can pull together a workshop with farmers with little notice and we can roll out seasonal-response trial work, bringing in many players and the best people.

Now that farms are changing in this digital world, we are looking to innovate through Immersive Ag. If you have been to our website, you will have seen a new platform that is taking people through the trial sites. Because we have such a large spread across 4 million hectares, we know that our farmers in Balranald will often not get to a trial that is at Murray Bridge, so how can we bring these results to the farmer? The best way to do this is through the smartphone, using the tools that we have and providing the info in the way that farmers now want to do business: through their phones.

Having said that, it does not take away from our efforts to still bring farmers together face to face. We definitely accept the responsibility to maintain our farmers' social wellbeing whilst helping them to champion productive and sustainable farming into the future. That is pretty much where I will leave it, and I will open it up to any questions if people have any.

The CHAIR: Thank you, Tanja. Thank you for such a thoughtful and detailed presentation. I am just interested to know, from your perspective, about the work that your body does in educating farmers in terms of what the science is saying about climate change. I am sure you are aware that there is a large body of evidence that has been built up now in terms of what we can expect to see throughout our landscapes over the next 20, 30, 40 or 50 years and so on and so forth, and that means that doing things as we have always done them is unlikely to be the solution. Having a group of people understand that and understand what it might mean for their particular farm or the district their farm is in, I think, is going to be critical for those farming communities to be resilient and to adapt to that change. How have you found having those conversations with the 2000-odd farming families that your organisation represents?

Ms MORGAN: Yes, absolutely, these are conversations that we have all the time. We are always talking about the weather; it is the first thing that some people ask you. Long-term trends and how this will affect farmers going forward is definitely front of mind for many, and it is why we often have climate scientists come in and talk to our farmers at research updates or at field days. We will often preface an event with an update on climate, how things are looking for the year, long-term trends and how we need to adapt moving forward, so that is always front of mind for our farmers. We are really looking at solutions to help them manage that going forward, and we are working with them closely to identify the things they need, the tools they need and the research they need to help them work through these things. We know we are going to see tougher times moving forward; I think everyone accepts that. It is about setting up your system with diversity and being able to make the most of the upsides to carry you through the downsides.

Our low-rainfall farmers have been doing it for such a long time, but it is about refining what they do now and getting them serious about looking a bit more long term in what they are doing. We know that we have an engaged group that is open to working through these challenges because a lot of them sit on this Goyder's line, so they are mindful of the fact that they are already pushing the boundaries of where they can farm. Any changes to the climate moving forward are just going to make things more difficult, so our farmers are really open to adopting new technologies. You know, they want access to the best varieties, they want to support our

scientists to be able to develop better adaptive varieties, they want the latest technologies and they just do not want to be held back. Look, I do not think it is an issue of engagement at all; it is definitely there. We just need to stay ahead of the game and make sure we can provide them with the tools they need.

The CHAIR: I just have two other questions, really. If you think of the grandfathers and the great-grandfathers and the great-great-grandfathers of the existing farming communities—so we are talking about the 1920s and 30s—obviously that generation saw the introduction of mechanisation onto farms, and that saw less farming families working the landscape but bigger farms, if you like. You know, those productivities came from that. I suspect some of the things that will come from climate change might be bigger farms in the future and potentially new technologies and new ways of thinking. It is a point of hope here that the grandfathers and great-grandfathers of current farmers went through a similar change and clearly thrived as a consequence. What sort of support might be provided, and what is the ideal way in which that support could be provided to ensure that our current generation of farmers can have access to the expert support they might need to identify the things that they can do either on their farm or with their neighbours to help transition their district into the future, which might be very different from a climate perspective, in a way that is economically viable for them? What sort of support structures might be beneficial to help with that challenge?

Ms MORGAN: Yes, it is a complex question. It is a good question. There are a few layers there, I think. Ensuring that they have the best research in that area is definitely key. You know, we see it firsthand. I drive the point about research and having the information for the growers, but if we do not provide it they go out and find it anyway, so in some aspects trying to stay ahead of where farmers are at in terms of adapting is also a challenge, especially when funding does hold you back at times. But in terms of where we are moving in a digital world, connectivity is absolutely key for most farmers. Where I see a fall down in adoption of some things that would really help people is when they cannot connect to the internet, they cannot get enough downloads and they cannot even get a mobile signal to ring their machinery dealer to come out and fix something. We need to get the fundamental issues with connectivity right before we start pushing people down this path of being able to manage their farms on a larger scale with autonomous machines that can do a lot of the hard work for them and that can help them to do bigger things on a bigger scale. Yes, I think it pretty much all comes back to that at this point in time. I know it myself; I run a business from home. I am working on a maximum download of 100 gigabytes a month and I have to share that with my three kids, so you can imagine what sort of impediment that is to my business productivity. When you multiply that across a whole farming region, that is where our biggest downfall is at this point in time.

Mr FOWLES: Tanja, you mentioned competing on a level playing fields for grants. I just want to make sure that I understood what you were saying there. Is it an issue with the structure that you have got?

Ms MORGAN: It is sometimes hard for organisations and small farming systems groups—although I think we are one of the larger farming systems groups—to compete with organisations such as CSIRO and some of the big universities that often get funding offered to them first. That is very much a top-down approach to putting research out on the ground. We very much want to partner with those organisations, but we find that when the funding comes from the top down it often does not filter down any further. When it comes from the bottom up, the research is better directed. We need to bring in players like CSIRO, whoever the private research providers are, government agencies and universities. We need to work with all of those players, and we do, and I think there is a better distribution of funding and it gets to where it needs to on the ground. I think keeping in mind the bottom-up approach and building extension into projects right from the start is key, and it is sometimes not what we see in some of these larger funding initiatives that come out.

Mr FOWLES: In terms of our recommendations, what would you have us recommend to the Parliament and to the Government in terms of changes?

Ms MORGAN: I think continuity of funding is also key; probably that would be the one thing that would be a good directive back to Government. There is quite often a lapse in funding. MSF came to a cliff face when GRDC was facing a restructure. We ran out of funding, and it was at the same time that the National Landcare Program was rolling over, and just because of the lag time in those organisations it really put an organisation like ours under a lot of pressure, so continuity of funding is absolutely key. You can see a program coming to an end: what is the next thing? We need to start thinking about it before that one program comes to an end, so that we can roll with the punches with everybody else.

The CHAIR: So, Tanja, perhaps just in a 10-second way can you step us through how your group is funded? I am assuming that it is natural resource management funding, is it? Just step us through in 10 seconds, if you can.

Ms MORGAN: Yes, absolutely. Our group gets a bit over 50 per cent of its funding from the Grains Research Development Corporation, GRDC; another 40 per cent, roughly, comes from National Landcare Program funding, and that is through partnerships with our NRMs in each state and also through direct funding that we apply for. We have identified the need to diversify our funding streams, and so we are trying to approach organisations like AWI, MLA, the South Australian Grain Industry Trust and lots of other philanthropic organisations to try to diversify our funding streams, so that we do not meet the cliff face, but they are the main ones that we run with at this point in time. We are not funded directly to exist; we are funded through projects.

Mr FOWLES: Can you tell us a bit about the current thinking around glyphosate, or Roundup as it is more commonly known, and what the implications will be on the ability to maintain no-till farming if that product's current trajectory continues?

Ms MORGAN: Absolutely. It is one of our biggest threats to production, actually. We have come such a long way in terms of sustainability, and glyphosate really is key. Where farmers would normally use multiple cultivations, working up the soil to get rid of weeds before they can put a crop in, now we can have a one-pass spraying operation with a fairly low rate of glyphosate. You go with one pass and then you can sow directly into a stubble. If that is taken away, there will be implications for how people are going to manage weeds. We are going to go back to having to work up country, which will mean more dust storms and less productive soils—I do not see farmers wanting to use that as an option—or the other option will be to use herbicides that we currently have that are far more toxic and using things like paraquat. You know, that is an S7 chemical—farmers hate using that product. Give us the safer option of glyphosate so that we can continue to do things sustainably. There are massive implications, and people are really worried about what this might mean if we lose glyphosate. It is a real concern.

Mr HAMER: Hello, Tanja. I just wanted to ask a question about your relationship with the local Landcare groups and what role they might be filling, particularly in the extension and outreach that you are providing, and whether there are opportunities to expand that, in your mind?

Ms MORGAN: Yes. It varies across our three states. We have different levels of engagement with local Landcare groups. In South Australia, for example, we have got a very strong ag bureau network, so we work with a lot of farmer groups through that network. In New South Wales it is probably more around local Landcare groups, and in Victoria there is not really a good established group network, so we try to rally together farmers in their regions. We work with existing groups where there are groups, so MSF can come in and provide additional support to run local trials, and we like to use existing group networks where there are local Landcare groups. We quite often call on them to run focus paddocks, workshops or field days, and then we quite often lean on them to provide us with feedback on the types of things that they need to see in their local areas. I see it as a synergistic relationship between the two. We very much support what the other does, and we are on the same page moving forward. Some of the local Landcare groups are more environmentally focused and some of them have more farmers that are all about sustainable land management, so it really depends on the group and what their focus is as to how much support we come in and offer.

The CHAIR: I might just have one further question, and then I think my colleagues seem to have exhausted theirs. You indicated to us that the CSIRO and other research entities often access dollars that you might be competing for as well. Should our Committee consider making a recommendation that with the work that those entities do that is funded by State Government grants perhaps a part of the requirement is that they need to have local partners, so that with the great research that they do there is a very tangible local benefit because they have a local partner? Perhaps then a part of their success would come from having those local partners so that that knowledge does get passed on to a very particular local group and maybe then also broadly to an industry.

Ms MORGAN: Absolutely. I think that is a fantastic approach, and I really welcomed the Smart Farming initiatives that came out with the last round of national Landcare funding. That was an excellent initiative where you had to build a consortium of partners, and it involved having a farming systems group or a group that had connections at the ground-up level when you were developing a project. That was a fantastic approach. MSF

was actually successful in winning one of those bids to tackle the problem of Mallee seeps, where we have got water draining into productive landscapes. We partnered with CSIRO in that project and we partnered with Adelaide Uni in that project and a number of other private consultants, and we believe that we have got the best team on board as a result of having to have that collaborative Smart Farms approach to deliver those project outcomes. I truly see it as a really positive way forward, and it would be a really constructive output to have.

The CHAIR: Terrific. I think we have finished our questions. Thank you for your detailed presentation and the documents you have provided. We will consider your evidence very carefully. Thank you.

Ms MORGAN: Great. Thanks for the opportunity.

Witness withdrew.