

Enriching soils, enriching communities: the value of a community-led approach

Collectively working to improve soil health



Part of a fifth-generation farming family in north central Victoria, Dianne Mullins deeply understands the value of both healthy soils and healthy communities. Dianne has lived in the Maryborough district—an hour south west of Bendigo - for her whole life and is a member of the Timor West Farming for Sustainable Soils (FSS) Group and the Timor West Landcare Group. Reflecting on her experiences of the FSS Project, Dianne says that “the Farming for Sustainable Soils Group has strengthened our community in many ways, and we now have a much broader knowledge of soil structure; we’ve learned so much”. Dianne explains how the Timor West FSS Group evolved from the ground up and has achieved a range of environmental, community and agricultural productivity benefits:

“My husband and I, and my father before me, have been involved in the Timor West Landcare Group for some years. [...] We love the work that they do and understand that we are all aiming to restore soil health.”

The FSS Project in this area is the continuation of the work done by the Timor West Landcare Group, following on from the RENEW (Regenerate Environment Nurture Engage Wellbeing) Project, a previous project delivered by the Landcare Group in conjunction with the North Central CMA, funded by the Helen Macpherson Smith Trust.

Timor West FSS Community Facilitator Merron Ipsen attests to the value of the community-led approach:

“The beauty of the Timor West Group is that because our group has formed from the Landcare Group, the longevity of what has been learned through the Project will be maintained through the Landcare Group. We hope [that] we’ll be able to have a platform or a base to continue to grow from the Project.”



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The Farming for Sustainable Soils Project is funded by the Australian Government’s National Landcare Program and delivered by the North Central Catchment Management Authority in collaboration with local farming communities.

Timor West farming community and soils context

Timor West is generally a mixed agricultural area, with broad acre cropping and sheep production. Dry land farming in the area produces cereals, pulses and oil seed crops, some hay, merino sheep, prime lamb and some horticulture. Merron explains that “generally, the soils are formed from a granite sub-base - we have a shallow, sandy topsoil and heavier clay underneath”. The granitic terrain is only one of the diverse range of land types in the Timor West area - soil types and their associated challenges can vary quite significantly throughout the area.

Dianne describes the range of soil challenges experienced on her family owned property at Dunluce, with its granitic country:

“There’s gully erosion, and salinity issues. There’s a hard barrier below the surface - a soil area that becomes bleached concrete in summer and in winter it’s like soup. [This] causes problems for farmers [...] We are trying to combat these issues - individually, as a family, as a collective within the Timor West Landcare Group, and now through the Farming for Sustainable Soils Project.”



Dianne Mullins, member of the Timor West Farming for Sustainable Soils Group



FSS Project Manager Phil Dyson, from the North Central CMA, encapsulates the key challenge faced by the Timor West FSS Group in improving the health of their soils:

“Our challenge is to identify a farming system that will build soil organic carbon in this material. The organic matter will improve root penetration and provide a medium that will hold essential nutrients and the other elements needed for plant growth.”

In terms of agricultural production, Merron explains that for the wider Timor West area:

“[...] some soils are marginal, but we still have some very productive soils. It’s about trying to maximise the potential within them. We definitely have some issues with soil structure and fertility, and that’s what farmers have been really trying to address by being part of the Project”.



Dianne Mullins, Phil Dyson (FSS Project Manager), Dan Mullins

But it’s not just farmers who are invested in soil health - the Timor West FSS Group is also made up of landholders with diverse backgrounds and community members interested in agriculture and environmental conservation.



Motivation for improving soil health through the FSS Project comes from a collective understanding of the importance of caring for the land for future generations, as Dianne explains:

“We have a genuine desire to improve the land; to restore, to maintain [...] I would hope everyone would have a desire to improve the world and leave the land a better place [...] All the people who have been involved in the FSS program would be practicing this understanding. [...]”

[...] We want to learn new practices, we want to improve our understanding, share, reflect and evaluate our practices.”

“Collectively we can do things together. As part of the FSS Project that’s what we’re doing - not just this property at Dunluce, but surrounding areas and farming properties as a collective. We want this world to be a better place, we want to improve soil health. We have to think of productivity for now and the future - that’s our goal.”



Empowering the farming community

The key characteristic of the Farming for Sustainable Soils Project is that it is community-driven. Through the FSS Project, local farming communities, like Timor West, are supported by the North Central CMA to identify, understand and address the soil health issues most important and relevant to them - as Merron explains:

“The community driven approach of the Project means that it’s demand driven by the people who are familiar with their area [...] the ideas are not being pushed onto the Group, and they can focus on what’s most important or concerning to them [...] and with that momentum and passion and ownership of those things [landholders and farmers] become more involved and self-driven.”

The FSS Project is structured to empower farmers to continually improve the health of their soils—first by helping landholders understand what their own soil health issues actually are, through learning new skills and knowledge to help identify new practices to improve soil health, and then by giving them the opportunity to undertake and monitor these changes in practice. Dianne says that this approach taken by the FSS Project “makes us more independent in our approach to soil health”.

Enriching soils through trials and learning

Through the FSS Project, the Timor West Group has conducted a diverse range of activities to help achieve their collective goals for soil health. The structure of the FSS Project includes three key components:

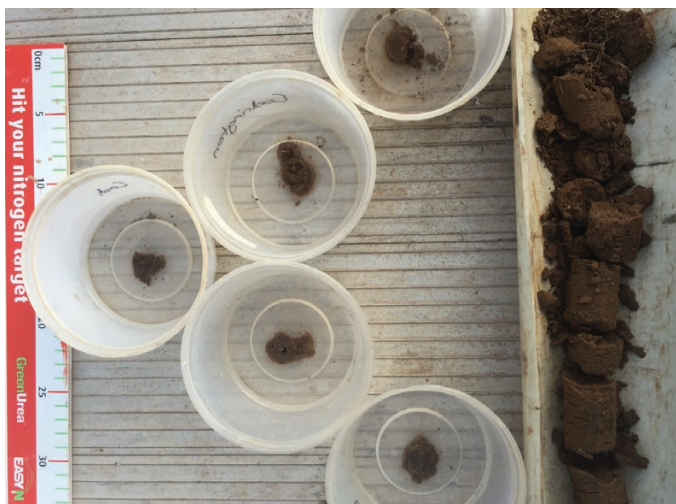
Soil testing and assessments - helping farmers to understand both the soil chemistry and soil structure of their properties, identifying the constraints and opportunities that varying soil types present for improving agricultural production and soil health.

Capacity building and knowledge sharing - bringing FSS participants together with a range of soil experts to learn new skills and approaches to soil health that they can use on their own properties, allowing them to share and discuss soil management practices and experiences with others in the farming community.

Field trials and demonstrations - giving landholders the opportunity to trial new soil management techniques on their own properties and monitor the improvements for soil health, as well as the opportunity to observe the techniques used by others in the area.

These components come together in practice through the activities undertaken by the FSS Group, as Dianne explains:

“When I reflect on the many things that we have done in the past two years with the FSS they’re varied and interesting and exciting. I think about soil tests that we’ve conducted, [...] taking [the results] back to the Group, interpreting them and seeing where we go to next.”



Soil testing from the Timor West FSS Group field demonstrations

“I think about our field trips [to other farmers’ properties], learning from their practices. I think about the many guest speakers that we’ve had and how much we have learned from them. I think about people coming and showing us how to conduct our own soil tests [...] I think about the technology, about the penetrometers, weather stations, drones that we have been using. So we are into a new world and at the same time we are [...] learning and sharing and building.”

Trialling soil management techniques through the FSS Project allows farmers to take the risks associated with undertaking new practices on their own properties, and to share the outcomes of this with the local farming community.



As part of the FSS Project, a subsoil manuring trial was conducted on Dianne and Dan’s property at Dunluce, “with a machine hired from the western district, chicken litter and pig litter had gone down underneath the soil and created a pathway for root penetration”. Dianne explains that in September 2017, “we had a soil pit excavated up here [and] we discovered something outstanding”. Soil excavation and testing undertaken by soils scientist Christian Bannan, resulted in a soil health assessment of “ten out of ten. He said that there had been root penetration in that area”. Through soil testing before and after the trial, the Timor West FSS Group saw firsthand the benefits of the subsoil manuring technique, as Dianne explains:

“The hard, cemented barrier in summer and the wet soupy structure in winter had almost been repaired. This is only the beginning. We celebrated, but we know we have to forge ahead [...] We know that this problem exists in many parts of Victoria, throughout Australia and throughout the world.”



Soil pit on Dianne’s family property



Dianne and Dan Mullins

Enriching communities

Beyond enriching the soils of the Timor West area, one of the key benefits of the community-driven approach to the FSS Project is that it strengthens existing relationships in the community, and which will continue beyond the funding period:

“At the same time as we are building our farming and agricultural knowledge, we’re building firmer and warmer relationships with each other. That’s a strength for our FSS Project. Not just the soil health but the health of the individuals involved as well.”

“[...] as we get together to talk about soil health and have these healthy exchanges and identify our problems, farmers, landholders and community members realise they’re not alone. They are not the only ones experiencing those problems.”

The Timor West Landcare Group has been strengthened through involvement in the Project, now having more regular meetings, social events and get-togethers, “building stronger relationships, helping landowners and farmers and others becoming stronger within themselves”. Reflecting on the value of the community aspect of the FSS Project, Dianne explains that:

“We probably can’t estimate how much this has improved in words [...] We’ve built such good partnerships in our community and with other agencies. And it’s not just for now, it’s for the future. We now have a pathway, we know where we’re going and that makes us stronger too.”

Looking to the future, Dianne says that:

“We have to continue and explore, learn from professionals learn from each other, forge ahead. In the future I would hope to learn a lot more about the serious land issues that are arising. There’ll be more in the future, I expect, with climate change and other factors impacting on us.”

Ultimately, Dianne states that the FSS Project “is exemplary; [it] encompasses all that we should be doing within our environment, within our agriculture, within our farming practices”.



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