



WA Landcare Network Inc
PO Box 48 Dandaragan WA 6507

enquiries@landcarewa.org.au
www.landcarewa.org.au

6 August 2020

Submission by WA Landcare Network

Sustaining Western Australia's Agricultural Soils –Western Australian Soil Health Strategy Discussion Paper Western Australian Agriculture Authority (Department of Primary Industries and Regional Development) 2020

Context

The WA Landcare Network Inc (WALN) is the peak community landcare body for Western Australia. It was established in 2013 to fill the current gap in representation and support for WA's over 700 landcare groups at the state and national levels. Community Landcare has a 30 year history in WA and WALN has continued this legacy by being owned by its members - grassroots landcarers. WALN is focused on providing improved support, coordination and capacity building to landcare groups and increasing Landcare's input into government and industry decision making. It is a member of and works closely with the National Landcare Network (NLN).

The WA Landcare Network offers membership to incorporated groups and networks as well as producer groups or similar voluntary organisations. Groups may be called Bushcare, Rivercare, Caring for Country, Dunecare or Coastcare or have a local name, but are all a form of Landcare and are part of the Landcare movement. Individuals, local governments and businesses are encouraged to become Associate Members of WA Landcare Network.

The WA Landcare Network commends the State Government for its intention to prepare a Soil Health Strategy.

Trends in soil health

The discussion paper rightly highlights that Western Australian soils are '*intrinsically susceptible to*' a significant array of degrading processes accelerated by poor farm management. Landcarer farmers and groups across the state are acutely aware that despite their best efforts to repair past damage done degrading processes are increasing in many agricultural and pastoral areas.

The discussion paper summarises the lost opportunity from erosion, compaction, salinity in dollar terms but there are many other impacts including reduction in soil carbon storage capacity, reduction in biodiversity and ecological function, negative impacts on rural community resilience ie social capital, human and mental health, reduced confidence in farming as a career for the next generation of farmers. These are harder to quantify but are important to consider in this soil strategy alongside impacts from degradation of biophysical properties.



Member group of the

WA Landcare Network members concur with the assertion in the paper that ‘there has been a lack of focus and coordination’ on soil health. There is significant frustration across the landcare community that the focus on soil health, science, management and funding for community coordinated extension services has experienced a significant reduction in attention and resourcing over the past decade. This is at a time when climate change impacts are exacerbating all other degrading process and our understanding of the importance of soil health has increased. A soil health strategy needs to address all the elements outlined in the discussion paper but should go further to address the gaps identified below.

Gaps in the Strategy

A more comprehensive focus on climate change

The impacts of climate change on soil health is alluded to but does not attract the attention required in terms of the impacts on soil health and the need to support mitigation and carbon storage strategies together. For example, the impacts on soil health from rising temperatures, increased evaporation, changes in timing and amount of rainfall increased frequency of extreme events are not specifically addressed.

This strategy will need to be developed in concert with the State Climate Change Policy in preparation to help meet the State target for ZeroCarbon in 2050. It is recognized that reaching zero carbon emissions in the agricultural sector through mitigation will be very difficult (Climate Analytics, 2019). However, the sector must contribute to policy discussion across all sectors to identify how the sector will contribute to mitigation and carbon storage.

Strategies in the agricultural sector include increasing carbon storage in the soil, cover cropping with perennials, improvements in animal health and digestion, reductions in fertilizer and chemical usage, retention of water on farms, and investment in renewable energy for farm usage. All these strategies and others will lead to greater resilience of farms and rangelands at the same time as contributing to climate change mitigation and storage. Additional planting of woody perennials is recognized as a key strategy for storing carbon to give time to meet carbon zero targets, and can contribute financially to farmer income and overall property resilience. Farmer led responses to climate change have been documented in *Regional Horizons Farming Communities Leading The Recovery* a report by the Farmers for Climate Action and supported by the WA subsidiary network AgZero2030.

Inclusion of peri-urban and urban landholders

The Strategy should consider engagement of the urban and peri urban communities as they are responsible for the management of significant soil resources that impact on other assets such as waterways and wetlands particularly in the higher density coastal catchments This is where most people in the state live and work. It is important that the strategy addressed how to educate and engage them in supporting and contributing to soil health in their own patch and in supporting initiatives across the state.

Peri-urban areas, less than 100ha in size, cover significant areas of land and will need specific strategies for engagement and management.



Address implementation of the strategy

The strategy identifies that improving information systems, regulation, extension, and administration will assist in delivering the strategy goal of improving soil health. As one member said:

We need consistency in information and messaging with clear responsibilities.

The concept of extension needs to be expanded beyond technical specialists. The strategy does not address all the drivers of behaviour change needed for landholders to take up soil health strategies. A key to successful behaviour change is the identification of how to reward good soil stewardship and to include dis-benefits for poor soil management. One example could be the expansion of tax offsets for implementation of soil health initiatives.

Attention to monitoring of landholder behaviour is needed for this strategy to be effective and is not addressed.

The community landcare network remains a strong force for change across the state engaging landholders in agricultural, peri-urban, pastoral and urban communities. There have been excellent examples in the past where landcare coordinators have been upskilled to successfully deliver extension on specific focus areas including soil health. Such efforts need to be repeated with sufficient resourcing to deliver successfully. The WA Landcare Network is prepared to partner in such delivery. As one community member said:

'In the decade of landcare many farmers had the information they needed. There seems now to be a lack of knowledge in the younger generation because extension services have not been maintained. There has also been a dismantling of the social capital within communities which assists behavioural change.'

Additional driver of change: Healthy soils contribute to production of healthy food

The soil strategy does not address how government policies can drive soil health change.

Australia successfully markets Australian products as green and clean. Healthy soils contribute to this goal. Inclusion of healthy food as a driver of change can lead to significant state government commitment to healthy soil-healthy food initiatives. An example can be taken from the French commitment to local and organic food.

The French government has passed legislation that requires elementary school cafeterias to serve 50% of their foods from local and organic sources. Although this directive has been widely phased in throughout the country, it must be completed by all schools as of 2022.

<https://inspirelle.com/why-french-school-lunches-outshine-other-cafeterias/>

It is important to recognise the links between healthy soils, healthy food and healthy people in the soil healthy strategy. The connection between soil and ecosystem and human health is recognized particularly in First Nation communities and applies across all communities.

Access to accurate soil health data and case studies

There is Departmental mapping at a generalized level. Soils types vary significantly across regions, catchment and farms. Soil health status is even more variable. There are examples of excellent regional soil mapping efforts from the past and current programs, however there is no repository of



case studies in soil mapping and health information accessible to landcare groups and researchers to help guide management efforts.

Community groups have also requested access to past and up to date trials and case studies using a range of media - videos, interviews, twitter discussion, research, webinars, website stories, on a more localized basis relevant to local landholders.

Baseline natural asset monitoring including soil health is not available. This could be coordinated at a State level. State governments are primarily responsible for the state of the environment and state governments are leading in many other parts of Australia. This gives good cause for the WA Government to resume State of the Environment Reporting.

It is important that such monitoring includes Natural Capital Accounting. The WA Landcare Network has supported Perth NRMs bid for funding to develop an NCA framework and tools that farmers can use to identify and adopt more sustainable farming practices.

This will be achieved by providing farmers with the capability to measure changes in on-farm NC through the trialing and adoption of different methods, as well as having the capacity to demonstrate the improvements in land stewardship practices to consumers.

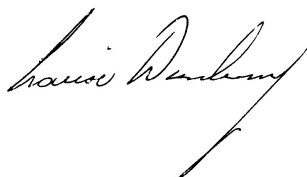
The intention is to consult with more than fifty farmer representative organisations, landcare groups, and government to develop consensus on a NCA framework and approach to conducting the on-farm assessments. The assessments will include extensive soil sampling/analysis, biodiversity assessments, produce sampling/analysis for nutrient density and residual chemical while also developing traceability to postcode technology. This information will be used to develop a snapshot of land condition/productive capacity status

Landcare is at the heart of many communities and has been recognized in the recent NSW and Victorian fires providing early responders with established networks and support mechanisms. To be effective, landcare groups need state government support to continue their roles in communities to protect soil, coasts, water and biodiversity and build landscape and community resilience.

The WA Government needs communities across the state to embrace action for soil health management, monitoring and restoration.

Community Landcare is a strong and enduring network of groups across Western Australia supporting positive changes for soil, land, water, biodiversity, coastal and marine landscapes and resilience. The WA Landcare Network is ready to help in development and delivery of the State Soil Health Strategy.

Thank you for this opportunity to make comment.



Dr Louise Duxbury
Executive Officer WA Landcare Network



Member group of the

References:

Climate Analytics, 2019. *A 1.5% Compatible Carbon Budget for Western Australia: WA's role in implementing the Paris Agreement and capturing opportunities in a decarbonizing global economy.*

Department of Primary Industries and Regional Development, 2018. *Western Australian Natural Resource Management Framework 2018.*

Farmers for Climate Action 2020 *Regional Horizons Farming Communities Leading The Recovery a report 2020*

