

FDI Feature Interview

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The Role of the Australian National Advocate for Soil Health, Major General The Honourable Michael Jeffery, AC, AO (Mil), CVO, MC (Retd).

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Key Points

- As the National Advocate for Soil Health, Major General the Hon. Michael Jeffery has worked to raise public awareness of the critical environmental role played by soil.
- Major General Jeffery's Mission in this appointment is to provide strong leadership and advocacy on the importance of healthy soil, water and vegetation and the benefits thereof for all Australians.
- The Soil Advocate wishes to bring scientists and land managers together to get a better understanding of the processes underpinning changes in the landscape and to address high priority issues.
- The overarching fundamental principle of the Advocate is that Australia's soil, water and vegetation are key natural, national, strategic assets and they must be managed accordingly and in an integrated way across the continent.
- The National Advocate for Soil Health is appointed by the Australian Federal Government but remains fully independent of government and does not speak on behalf of government.

Introduction

The former Governor General, Major General the Hon. Michael Jeffery, has now been the National Advocate for Soil Health since December 2012. During that time, he has worked tirelessly to raise public awareness of the critical role soil plays when integrated with good water and vegetation management, in underpinning sustainable productivity, delivering high quality ecosystem services and helping to meet global challenges including food security and climate change.

General Jeffery has traveled to every state and territory and overseas to meet with farmers, scientists, policy makers, students and community groups to learn about soil management issues and opportunities and to speak at various forums, conferences and field days. This process of broad consultation has informed the reports provided by the Soil Advocate to the Australian Government.

During his term as Soil Advocate, General Jeffery provided input into the former national soil research, development and extension implementation committee, now known as the Australian Soil Network. He continues to support the implementation of the strategy, which aims at securing Australia's soil for profitable industries and healthy landscapes. Another key piece of work was the provision of high level input to the development of the Australian Government white papers on agricultural competitiveness and development in northern Australia.

Interview

FDI – What are the opportunities provided by your appointment as the National Advocate for Soil Health?

It provides the opportunity to provide leadership and national strategic direction to the good work being done by soil scientists, landscape managers and farmers across Australia every day.

There are several matters I want to address as Soil Advocate, including communicating the primary indicators of soil health and the importance of understanding soil processes.

I want to explore the temporal dimension of soils, assess where we were in the past, where we are now and where we should be going in the future.

We must clearly articulate our goals and examine how best we go about improving soil health for the future. I want to bring scientists and land managers together to get a better understanding of the processes underpinning changes in the landscape, how they can be improved and how we can work together to make sure we are addressing the highest priority issues.

We need to communicate to the wider community the vital importance of improving soil condition and demonstrate how it benefits us all. To do this effectively, we must break down technical barriers and focus on the narrative, communicating in such a way as to capture the public's attention. I am consulting with soil scientists specialising in soil chemistry, biology and physics, as well as experts in land management and degradation in developing a set of soil research and development priorities.

Because soil health is integral to the health of the broader landscape, we must take an integrated and nationally coordinated approach to managing the whole system – soil, water and biodiversity. In recognition of this, I will also be engaging with experts in hydrology, agronomy, biodiversity management and plant and animal health.

I am looking forward to exploring new opportunities for improvements in soil health, not just for the benefit of those who manage the land, but for all Australians.

FDI – What Terms of Reference were you provided with in accepting this appointment?

My **Mission** is to provide strong leadership and advocacy on the importance of healthy soil, water and vegetation and the benefits thereof for all Australians.

The focus of my role is on raising public awareness of the importance of improving soil and landscape condition and soil information, and the critical role soil plays in underpinning sustainable agricultural productivity, delivering high quality ecosystem services and helping to alleviate the impact of climate change. Though appointed to this role by the Australian Government, I am fully independent and do not speak on behalf of the government.

My Terms of Reference contains broad and far reaching specified and implied tasks. They also outline the resources required to meet those tasks. They are reproduced here in tabular form:

Table 1. Term of Reference for the National Advocate of Soil Health. *Last Reviewed 25 February 2015.*

Specified tasks	Implied tasks	Resources required
<p>Advocate that the healthy condition of our soils must be a national priority.</p>	<p>Convince a national audience of the importance of soil health, based on the integrated management of soil, water and vegetation through:</p> <ul style="list-style-type: none"> • One on one meetings with leaders and influencers • Speaking engagements • Engaging with schools to educate children • Papers • Media engagement and releases • A webpage (to be managed by the secretariat) 	<p>Secretariat support (including access to the department's media team).</p>
<p>Report to the Australian Government on national priorities for soil and landscape science and management.</p> <p>Deliver an initial report to the Prime Minister, an interim report to the Minister for Agriculture, and a final report to the Prime Minister.</p>	<p>Seek advice from technical experts and practitioners on current soil research needs, including identifying the current deficiencies.</p>	<p>Access to Chief Scientist(s) for advice on coordination of research effort, including international efforts.</p> <p>Access to leaders of research bodies, including universities and research and development corporations.</p> <p>Support from the secretariat in compiling and drafting reports.</p>
<p>Work towards ensuring that existing and new soils research meets the needs of Australia's farmers and other soil managers.</p>	<p>Determine what information, encouragement and help farmers need to build soil health as a priority activity within their business.</p> <p>Engage with the National Implementation Committee for the National Soil Research, Development and Extension Strategy through regular meetings and correspondence.</p>	<p>Opportunities to consult with land managers about their needs, and to encourage them to adopt soil health as a priority for their business.</p>

Specified tasks	Implied tasks	Resources required
Advocate for adequate knowledge and supporting systems to help farmers to actively build healthy soils.	Advocate for resourcing to be linked to Land Management organisations' contribution in delivering positive soil health actions 'on ground'. Ensure that training/education in soil health reflects best practice. Use case studies to communicate proven leading practices to farmers.	Review of current soil health and related fields education, with an emphasis on practical level organisations. Review of existing data on wider adoption trends.
Contribute to the Australian Government white papers on agricultural competitiveness and developing northern Australia.	Liaise with key stakeholders including technical and policy experts to develop relevant input for the development of the white papers.	Regular communications with the white paper taskforces within the Department of Prime Minister and Cabinet.

FDI – What are your objectives as the National Advocate for Soil Health?

I have found that whilst there is a significant amount of good work on soil underway, there remains scope for better understanding of issues and interactions if soil, water and vegetation are to be properly recognised as national assets. In line with the importance that must be placed on the landscape, the overarching fundamental principle the Advocate has developed is that:

Australia's soil, water and vegetation are key natural, national, strategic assets, and they must be managed accordingly and in an integrated way across the continent.

Put simply, if we fail to manage any one of the three correctly, the other two will also fail.

I have identified the following objectives as necessary to support the implementation of this fundamental principle:

- To ensure that land managers have access to reliable and continuous data around soil, water and biodiversity, necessary to better inform land management decisions.
- To better coordinate land management policy and decisions, by recognising the potential, short, medium and long-term impact of these decisions on the wider community and other sectors.
- To better focus and then coordinate scientific research by asking the right questions of science, by establishing a consistent information and analytical flow from and to the user by assessing where knowledge gaps exist and by targeting research to these priority areas.

A healthy soil is a soil fit for purpose. The diversity of soil types in Australia makes it impossible to define a single set of characteristics that make up a healthy soil. A more practical measure is to consider the health of soil in the context of the intended land use, as different uses will have different requirements. Many

physical, chemical and biological processes occur in soils, and they operate at different rates across the landscape according to the climate, land use and soil type. Healthy and productive agricultural soils have these three processes working together to support productivity, maintain environmental quality and promote plant and animal health.

These objectives have evolved and been refined over the course of my appointment. They will be used to guide the recommendations in my report to the Prime Minister due in January 2018.

FDI – What are the Key Drivers of your advocacy?

I believe the following, overarching themes are central to achieving progress on improving soil health in Australia. The key drivers are outlined under each theme for further consideration, noting that there is a significant amount of work underway in this area, and some of these drivers may be captured under existing initiatives and programs.

National Recognition

The influence of healthy soils on the environment, for example by improving water quality and protecting biodiversity, means that our soil is a significant public good. Recognition of the importance of soil (in association with water and vegetation), at the highest level, is required to protect and enhance this national asset. This recognition should note the important role of our 130,000 farmers, who manage approximately 60 per cent of the Australian landscape on behalf of 24 million urban Australians, which makes each farmer's choice of management practice important because of impact on the wider community.

Inform and Educate

Australia's capacity to increase agricultural productivity will depend heavily on managing and manipulating the soil resource base. An appropriately skilled workforce is critical to ensuring our natural resources are managed in an innovative and sustainable way. From schools to universities, there is a need to examine what, how and to whom landscape management is being taught. We must also explore avenues for strengthening career pathways for students undertaking natural resource management studies. As a significantly urban-based population there is a widening disconnect with the important role our rural-based communities have in providing food and fibre to all Australians (and beyond our shores) and this must be corrected as a high priority. An important priority in an educational sense is to establish a vegetable garden in every primary and junior high school in Australia working to an agreed, integrated syllabus.

Information, Science and Research

While Australia has some world class soil research and development, there is significant opportunity to improve the way our research effort is focussed, coordinated and delivered. Fundamental soil science, including highly specialised research, must be a priority, as it acts as the foundation for all applied research. It is important to understand what questions need to be asked and by whom, how data collection is initiated and then collated and analysed, and how research findings are distributed to those who can benefit from them. There is a need to understand the specific information requirements of land managers, including the scale and level of detail, and explore how those managers prefer to access this information and to tailor the delivery accordingly.

Other Areas of Focus

In addition to these drivers, I will also explore a number of other issues for possible inclusion in my final report, including but not limited to:

- Describing and defining a healthy soil and how soil can attain a healthier status.
- Understanding the importance of water and water efficiency in improving the health of a landscape, with emphasis on how best to retain water in soil.
- Understanding the importance of vegetation and the soil/plant interface in improving the health of a landscape.
- Communicating the role of Indigenous Australians in natural resource management and partnering with them in case study activities.
- Investigating mechanisms for the effective sharing of information.
- Recognising the need to obtain the important inputs of health, education, trade, mining, urban/regional development, science and national security into landscape/agricultural policy.
- Investigating the role of extension services and centres of excellence in improving landscape management.

FDI – What are your next steps in this role?

The next step is to seek government endorsement of a national policy to ‘restore and maintain the health of the Australian agricultural landscape’, along with its various supporting sub sets.

A second objective is to establish a national school garden program, so that every child upon the age of 16, has a fundamental understanding of the importance of soil health to the well-being of the nation.

Thirdly, I want to see the concept of a National Soil Advocate, supported by 100 leading practice agricultural case studies taken up globally, to provide an agricultural information exchange base that is effective, quick and low cost.

And finally, in conjunction with research and development priorities, I wish to emphasise the importance of innovation, and of working to remove constraints to the adoption of sustainable and innovative land management practices. Australia’s agricultural industries have a strong tradition of being innovative and adaptive to new challenges, and this has allowed them to be highly efficient and competitive in international markets. Our soil philosophy, however, must be underpinned by the fundamental principle of integrating the management of our soil, water and plant assets. Agricultural activity must be sustainable and we must strive to pursue improved management practices to protect this vital resource for the long-term. Improved understanding and management of non-agricultural lands is equally important, utilising the same integration principles.

Conclusion

Readers requiring additional official information from the National Advocate for Soil Health may wish to consult the official website at [Advocate for Soil Health](#). The website contains detail information about the appointment and includes links to important documents such as the two reports from the Advocate to the Prime Minister and the Minister for Agriculture. It also provides a link to the National Soil Research Development and Extension Strategy. The site also provides an online inquiry form.

About the Interviewee:

Major General The Honourable Michael Jeffery is the Founder and first founding Chairman of Future Directions International. He was born in Wiluna, Western Australia. He graduated from the Royal Military College, Duntroon into Infantry serving operationally in Malaya, Borneo, Papua New Guinea and Vietnam, where he was awarded the Military Cross and the South Vietnamese Cross of Gallantry. He has commanded every combat unit of the Australian Army, He retired from the Army in 1993 and was appointed Governor of Western Australia until 2000.

Post retirement as Governor, he established Future Directions International (FDI) – in Perth. From 2003 to 2008 he served as Governor-General of the Commonwealth of Australia where his key interests were in youth, education and food security. He is also Chairman of Soils for Life and patron of some other 16 charitable organisations and the Executive Chairman of the Queen Elizabeth Diamond Jubilee Trust in Australia. In October 2013 he was appointed by the Prime Minister as Australia’s Advocate for Soil Health.

Any opinions or views expressed in this paper are those of the individual interviewee, unless stated to be those of Future Directions International. The views of the interviewee are his personal view as author of the book and are not of his current and past employers.

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