



From the Chairman's Desk

Major General the Honourable Michael Jeffery, AC, AO (Mil), CVO MC (Retd)
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Regenerating Soils in Northern and Inland Australia: Part of Our Greatest Challenge

The recent move by the Emissions Reduction Fund to seek submissions and the Government's intention to issue a White Paper on the development of Northern Australia are to be applauded, but more research on a wide range of issues is necessary and will need to be sustained.

2013 is shortly to be declared the hottest global year on record. Scientists increasingly are warning of unprecedented environmental, social and economic risks due to growing pressures on limited resources such as food and water. Population and consumption trends are key drivers and show little sign of changing over the next 50 years. Even if it were possible to limit global warming to less than 2 degrees Celsius above pre-industrial levels, sea rises alone could destroy major cities. Temperature levels above 4 degrees, and the possibility of such a rise in this century cannot be discounted, would have a catastrophic impact on humanity.

In short, climate change is the most urgent issue now confronting the world.

This unprecedented challenge is compounded by the fact that we have only a short timeframe in which to do something substantial and practical, to recognise that existing political and corporate attitudes and processes need to change and that we need to move from incrementalism to rapid transformation.

An area to date that has received little attention is the amount of carbon emitted through the extensive wildfires that are prevalent through much of northern and inland Australia. Over 20 million hectares are burnt each year. By reducing wildfires and returning carbon into the soil, emissions could be reduced by up to three billion tonnes each year. This is equivalent to 20 times our current emissions from industrial and other sources.

Such regeneration would enhance the infiltration and retention of rainfall, resulting in a more fertile landscape, with the potential for increased food production, better long term environmental outcomes, including feral animal control, and improved remote community opportunity and health.

The knowledge on how we do this could also be made available to other countries that are experiencing similar and, in some cases, even greater carbon discharges through wildfires with Africa being a prime example.

The concept of what to do is relatively new but it is becoming increasingly obvious. Through the effective use of water, much of which is lost through evaporation or runoff in northern and central Australia, irrigated grasslands and cropping can replace vegetation that is subject to wildfires. Grasslands can then be controlled through animal grazing and the opportunistic growth of crops, resulting in increased food production for export and local consumption as well as the reduction of carbon emissions.

Clearly such strategies raise important issues that require further research and consideration.

Future Directions International and Soils for Life are two institutes that seek to identify, encourage and promulgate research results and policy outcomes on these issues. Indeed, the process started early this month with the publication of a paper titled *Regenerate Australia: Our Greatest Challenge and Opportunity. A Conceptual Paper.*

Other papers are also under consideration and are expected to be the first of many. One will seek to determine the impact of wildfires globally and another will examine the reason, extent and impact of such fires in northern Australia.

Interviews with farmers and others who are able to regenerate their soils through the innovative management of soil, water and livestock will also be published and be available on FDI's website www.futuredirections.org.au. A regular update will also be published by its CEO to indicate what research has been done or is underway and to highlight policy issues that are being considered or completed.

I cannot encourage strongly enough, consideration of these issues, with their long term social, economic and security impacts on all of us.

Time is of the essence and we must move now.

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