



CoP

Land and Soil Management
Community of Practice



Sandstorm in the city by Rizalde Cayanan, Kuwait.

Photograph: Rizalde Cayanan/Courtesy of Atkins CIWEM Environmental Photographer of the Year

<http://www.theguardian.com/environment/gallery/2015/jun/03/atkins-ciwem-environmental-photographer-of-the-year-2015-in-pictures>

From dust bowl to bread basket: digging the dirt on soil erosion

Poor soil quality has seen agricultural productivity in Africa decline when it drastically needs to increase. Will 2015's International Year of Soils help?



Soil degradation is not restricted to Africa. A study shows that 2,000 hectares of farm soil are being lost every day to salt-induced degradation. Photograph: Alamy

Can we achieve a 70% increase in food production by 2050? It's often quoted as an objective, but some areas of Africa have seen agricultural productivity decline by half due to erosion and desertification. If productivity is ever to go up, we may need to start by looking down: at the soil.

<http://www.theguardian.com/global-development-professionals-network/2015/jan/13/soil-erosion-africa-asia-international-year-of-soils>



Counterpoint

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Soils For Life

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Monday 18 May 2015 4:40PM

It's time to talk about soil because if we don't we could face a very serious problem. The world needs to double sustainable food production by 2050 to feed a projected population increase of 9 billion people.

This means that food security is one of the world's most pressing problems. People need access to food, there needs to be enough for everyone and it needs to be nutritional and affordable. Soil is essential for food security so we need look after it so it can remain healthy so we can all be healthy. So how do you make healthy soil?



MADE BY TALKING STUDIOS IN ASSOCIATION WITH RN FOR LIFE TO MAKE YOUR SOIL HEALTHY (04) 8621 7722 (02) 424 4242



Monday 4pm
Presented by Amanda Vanstone

IN THIS PROGRAM

Monday 18 May 2015

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<http://www.abc.net.au/radionational/programs/counterpoint/soils-for-life/6472556>

Poll: which is more 'visually awful', a windfarm or a coalmine?

Tony Abbott thinks windfarms are 'visually awful' but only has good things to say about coalmines. What do you think?

Thursday 11 June 2015 12.18 AEST



From left: the New Acland coalmine; the Capital windfarm in Bungendore, Australia. Photograph: Getty Images

Australian prime minister Tony Abbott has said his government has been doing as much as it can to reduce the number of windfarms, describing them as 'visually awful'. Treasurer Joe Hockey has previously described them as 'utterly offensive' and 'a blight on the landscape'. Meanwhile, the government has approved several large coalmines and exploration licenses.

<http://www.theguardian.com/environment/poll/2015/jun/11/poll-visually-awful-windfarm-coal-mine>

Terrawatch: The history of dirt



📷 Not just for moles – soil is essential for all life on Earth. We need to take care of it. Photograph: Alamy

2015 is the [International Year of Soils](#). For many of us it is hard to get excited about the brown crumbly stuff underneath our feet, but [without it we, and much of life on Earth, wouldn't be here](#). Earth's dirt is one of the things that sets it apart from the other rocky lifeless planets out there. But geologically speaking soil hasn't really been around that long.

Earth is 4.54 billion years old, and yet the rich red-brown sediments that we think of as soil didn't appear until 450 million years ago. We used to think that soil was created by rivers weathering bare rock, but research published in a special issue of [Nature Geoscience](#) in 2012 suggests that it is land plants we need to thank for our soil.

<http://www.theguardian.com/science/2015/apr/05/terrawatch-soil-earth-origins-life-erosion>

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Precious petals

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Sunday / June 2015 / 4:45 AM

Australia needs two types of science in order to flourish, argues Len Fisher from the University of Bristol.

The first must be concerned with using the knowledge scientists and engineers already possess to provide solutions to problems and create new products. The other type of science - equally important - is concerned with seeking entirely new forms of knowledge.

Prioritising the former over the latter through 'targeted research', he says, risks entirely missing the point of scientific enquiry.

Sundays 7-9am
Presented by Robyn Williams

<http://www.abc.net.au/radionational/programs/ockhamsrazor/len-fisher-precious-petals-targeted-research/6518060>

Everyday Australians, unlike their politicians, care about the environment

Kelly O'Shanassy ABC Environment 5 Jun 2015



The black throated finch is one species threatened by the proposed Carmichael coal mine. Humans are another.

On World Environment Day the Australian Conservation Foundation's CEO Kelly O'Shanassy says politicians need to start acting in the interests of the people they represent.

I SPENT PART OF my childhood in the city and part of it in the country. My love for the natural world was nurtured and fed in both places.

And in my experience, whether people are city slickers or country folk, almost everyone is united in wanting a healthy environment and a safe future for themselves and those they love.

Kelly O'Shanassy is chief executive of the [Australian Conservation Foundation](#)

<http://www.abc.net.au/environment/articles/2015/06/05/4248910.htm>

The farming lobby has wrecked efforts to defend our soil

In an extraordinary coup, farmers' unions and the UK government have torpedoed the European soil framework directive



Fields of Oil Seed Rape, from the air, Lincolnshire, April 2011. Photograph: Paul White /Alamy

“British soils are reaching crisis point.” Don't take my word for it - [this is a quote](#) from a loyal friend of the farming industry, Farmers' Weekly.

You would expect farmers to try to protect their soils, which are the foundations of their livelihood, and many do. There are some excellent farmers in Britain, careful, well-informed and always thinking of the future.

<http://www.theguardian.com/environment/georgemonbiot/2014/jun/05/the-farming-lobby-has-wrecked-efforts-to-defend-our-soil>

New Desalination Technologies Spur Growth in Recycling Water

Desalination has long been associated with one process — turning seawater into drinking water. But a host of new technologies are being developed that not only are improving traditional desalination but opening up new frontiers in reusing everything from agricultural water to industrial effluent.

BY CHERYL KATZ

A ferry plows along San Francisco Bay, trailing a tail of churned up salt, sand, and sludge and further fouling the already murky liquid that John Webley intends to turn into drinking water. But Webley, CEO of a Bay Area start-up working on a new, energy-skimping desalination system, isn't perturbed.



ABOUT THE AUTHOR

Cheryl Katz is a science writer based in the San Francisco Bay Area. A former staff reporter for the *Minneapolis Star-Tribune*, the *Miami Herald* and the *Orange*

County Register, she is now a freelancer specializing in stories about environmental issues and climate change.

Her articles have appeared in *Scientific American*, *Environmental Health News*, and *The Daily Climate*, among other publications. Previously for *e360*, Katz reported on Iceland's renewable energy prospects and the emerging field of energy-scavenging technology.

http://e360.yale.edu/feature/new_desalination_technologies_spur_growth_in_recycling_water/2770/

The good earth: Jasmine rice and Leeton Red Sodosol

AUTHOR



Robert Edis
Soil Scientist at University of Melbourne

DISCLOSURE STATEMENT

Robert Edis receives funding from ARC, IPNI, Inctec Pivot, ICARDA, DAFF, GRDC, and is President of the Victorian branch of Soil Science Australia.



Provides funding as a [Founding Partner](#) of The Conversation AU.



Grown on water saving soils... TKMaggieFlickr

Australia has some of the world's most ancient soils, many of which grow delicious produce. In this series, "[The good earth](#)", soil scientist Robert Edis profiles some of those soils and the flavours they bring.

<http://theconversation.com/the-good-earth-jasmine-rice-and-leeton-red-sodosol-14674>

The answer lies in the soil and pesticides



📷 A combine harvester in a wheat field. 'Articles like Mr Meitziel's do little to bring about change, as they fail to demonstrate a good understanding of the reality on the ground,' writes Richard Bramley. Photograph: Andrew Matthews/PA

Scientists at Harvard University have confirmed that those eating food with most pesticides left in it have around a 50% lower sperm count ([Fruit and veg pesticides may harm male fertility, 31 March](#)). A major research study by Newcastle University published last year found not only that organic fruit and veg contains more beneficial nutrients, but also four times less pesticide residues. It has been a bad few days for pesticides. Monsanto's ubiquitous weedkiller, Roundup, was previously claimed by the pro-pesticides lobby to be "safe enough to drink", until one of them was offered a cup during a recent interview, which he refused to drink, adding "I'm not stupid". This was after the World Health Organisation's International Agency for Research on Cancer declared that the chemical in Roundup, glyphosate, "probably is carcinogenic to humans". Glyphosate is one of the most commonly found herbicides in UK food, according to government monitoring, and most cereal crops are sprayed with it just before harvest. As a result it frequently turns up in our bread, where no amount of washing will get rid of it.

<http://www.theguardian.com/environment/2015/apr/02/the-answer-lies-in-the-soil-and-pesticides>



Big Ideas

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Megatrends for the Future

▶ Listen now ▶ Download audio

Monday 8 June 2015 8:05PM

It is impossible to a fortune teller, but we do need to try and understand the forces shaping our future and adapt accordingly. Otherwise we are in big trouble. The film company, Kodak, is an apt metaphor. It once ruled the roost, making 16 billion dollars back in 1996. By 2012 it was broke, having failing to grasp a simple digital reality: people no longer wanted photos on paper anymore. The CSIRO's, Stefan Hajkowicz believes there are seven Mega trends determining our future. He discusses them with Paul Barclay.



BARCLAY: PREDICTING THE FUTURE SOURCES MORE THAN CRYSTAL BALLS. (RN 11/15 BARCLAY)



Monday to Thursday 8pm
Repeated: Tuesday to Friday 3am
Presented by Paul Barclay

<http://www.abc.net.au/radionational/programs/bigideas/megatrends-for-the-future/6520968>

A MATTER OF OPINION

Climatic volatility an urgent call

Posted By: **Gregor Heard** on 31/12/2014 3:00:00 AM | Comments (23)

🖨️ A+ A-

🗨️ Comments 23

A matter of opinion
with
**Fairfax
Agricultural Media**

AFTER a woeful couple of years, it has been a lovely festive period for drought-stricken farmers in Queensland, with many centres in the Maranoa and Warrego regions receiving their best falls in two years.

Should this promising start translate into a meaningful turnaround in the rural economy in northern Australia - and farmers return to a more even keel - it would also signal the perfect time for meaningful debate on government drought reform in this nation.

<http://www.stockandland.com.au/blogs/a-matter-of-opinion/climatic-volatility-an-urgent-concern/2720292.aspx>

Ghana's bicycle which is creating jobs while it saves the soil

By using an abundant - and green - crop, the Bamboo Bikes Initiative has won international prizes



📷 Ghana Bamboo 'City' bike. Photograph: Ghana Bamboo Bikes

Six years ago, Bernice Dapaah decided to forge an unconventional path into employment. About to graduate with a business administration degree but facing a bleak job market in Ghana, she joined forces with a handful of engineering students to create an innovative product from an abundant crop: bamboo.

<http://www.theguardian.com/environment/2015/may/05/ghana-environment-bamboo-bicycles->

[seed-award](#)

Freeway being fast-tracked despite lack of soil testing and drilling

June 3, 2015

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Clay Lucas

City Editor, *The Age*

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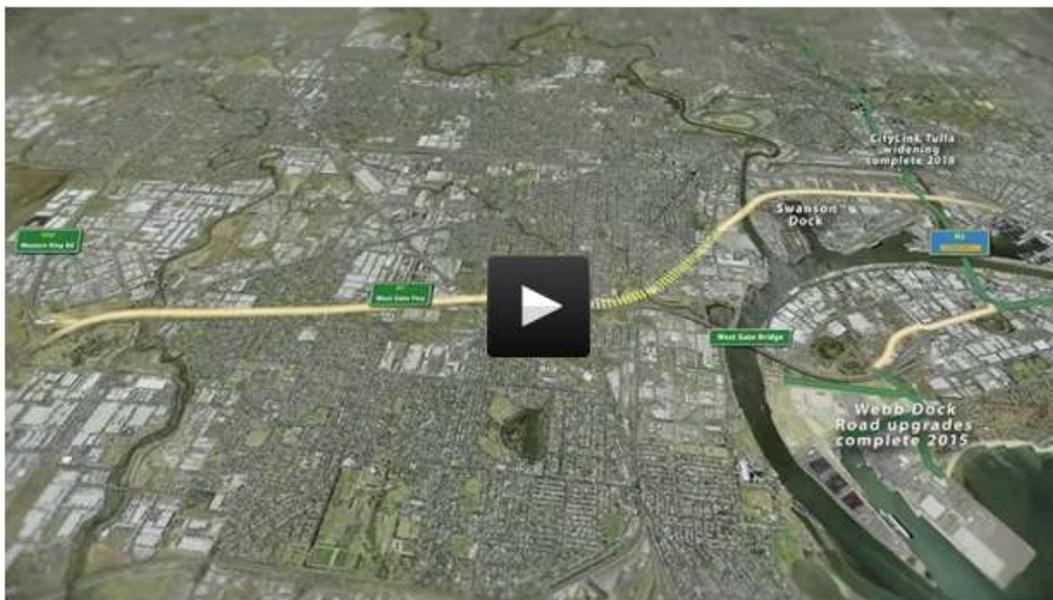
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Overview of Western Distributor proposal

Transurban's proposed Western Distributor project aims to address some of Melbourne's "most critical traffic, growth and liveability challenges".

Transurban's plan to build a \$5.5 billion freeway through Melbourne's west is being fast-tracked by the Andrews government despite the toll road operator not having done soil testing and drilling for the project.

<http://www.smh.com.au/victoria/freeway-being-fasttracked-despite-lack-of-soil-testing-and-drilling-20150602-ghf48z.html>

Will Australia continue to sacrifice its international reputation on the altar of coal?

Graham Readfearn

Arguments that coal is the answer to poverty are based on "implausible economics with unsubstantiated evidence" says report led by Kofi Annan



Australia is one of the world's biggest coal exporters Photograph: Robb Kendrick/Robb Kendrick/National Geographic Society/Corbis

We're now well passed the halfway point on the long road to Paris and a new global climate agreement to cut greenhouse gas emissions.

Australia took its turn to defend its domestic policies and targets during United Nations talks in Germany yesterday,

<http://www.theguardian.com/environment/planet-oz/2015/jun/05/will-australia-continue-to-sacrifice-its-international-reputation-on-the-altar-of-coal>

Michael Jeffery and Helen Szoke on a military plan to improve Australia's soils

AUTHOR



Nicola Roxon

Adjunct Professor and Chair, Sir Zelman Cowen Centre, College of Law & Justice at Victoria University

DISCLOSURE STATEMENT

Nicola Roxon does not work for, consult to, own shares in or receive funding from any company or organisation that would benefit from this article, and has no relevant affiliations.



Major General Michael Jeffery, Chairman of Soils for Life. AAP Image/Alan Porritt



Provides funding as a Member of
The Conversation AU.
vu.edu.au

A speech given by Major General Michael Jeffery at Victoria University College of Law and Justice on October 15 was the **second of a series of four** tapping into the vast experience of eminent Australians who have served as Governor-General of Australia.

<http://theconversation.com/michael-jeffery-and-helen-szoke-on-a-military-plan-to-improve->

Soil: the sustainable alternative to oil income in Africa

Agriculture has the potential to generate significant revenue for Africa, offering more sustainable and equitable development than oil provides.



📷 Sustainable farming offers a genuine opportunity for Africa to boost its income Photograph: Alamy

The [2014 Africa Progress Panel report](#) presents the two faces of Africa: robust economic growth and continuing poverty. But the report suggests Africa could change this duality by asking: how can resources make a positive impact on development? While [impressive headline growth figures are reported](#), incomes do not trickle down to improve livelihoods of the majority of the population.

[australias-soils-33084](#)

<http://www.theguardian.com/global-development-professionals-network/2014/dec/30/soil-the->

Conservation parks are growing, so why are species still declining?

AUTHORS



Ro Hill
Principal Research Scientist,
Ecosystems, Biodiversity
Knowledge and Services
Program at CSIRO



Barry Newell
Visiting Fellow, Fenner School of
Environment and Society at
Australian National University



Iain Gordon
Chief Executive at James Hutton
Institute



Michael Dunlop
Senior Research Scientist: land-
water-biodiversity-climate at
CSIRO



Ironically, meeting global targets to preserve a proportion of the world's forest could weaken motivation to protect the rest of it. *Jani Dreyer/Wikimedia Commons*

It's now five years since the **International Year of Biodiversity**, and nearly 15% of Earth's land surface is protected in parks and reserves. By 2020, we should reach the **agreed global target of 17%**. This is good news for species diversity, right?

DISCLOSURE STATEMENT

Ro Hill receives funding from the Australian Government to support his work with CSIRO

<http://theconversation.com/conservation-parks-are-growing-so-why-are-species-still-declining-40478>



The abandoned village of Geamana by Glyn Thomas, Romania. Geamana in the Carpathian Mountains in Romania – an abandoned village in what is now a toxic tailings pond from a nearby copper mine. Photograph: Glyn Thomas/Courtesy of Atkins CIWEM Environmental Photographer of the Year

<http://www.theguardian.com/environment/gallery/2015/jun/03/atkins-ciwem-environmental-photographer-of-the-year-2015-in-pictures>

Wildlife corridors carry risks as well as rewards for endangered species

Tim Low ABC Environment 10 Jun 2015



Oddly, the Eastern Quoll survived longest on mainland Australia in inner suburbs of Melbourne and Sydney. *Credit: sontag1 (Flickr)*

'Wildlife corridors' have long been thought essential to the survival of our remaining native species. But they carry risks which are often not considered.

OF AUSTRALIA'S MANY mammal extinctions, one stands out for its strange setting. The eastern quoll, which lingers on today in Tasmania, has vanished completely from the mainland, but lasted longest in scraps of bushland in affluent inner city suburbs — in Vaucluse in Sydney and Kew and Ivanhoe in Melbourne. In both cities it survived until about 1963.

Tim Low is a biologist and author of seven books. His most recent book Where Song Began won best prize for non fiction at the Australian Book Industry Awards.

<http://www.abc.net.au/environment/articles/2015/06/10/4251727.htm>



<http://www.smh.com.au/photogallery/federal-politics/cartoons/ron-tandberg-20090910-fixc.html>

Analysis: G7's end-of-the-century emissions deadline an important marker

ANALYSIS

Analysis by national environment reporter [Jake Sturmer](#)

Posted Tue at 4:34pm Tue 9 Jun 2015, 4:34pm



Photo: The leaders backed greenhouse gas emissions reductions of 40 to 70 per cent by 2050 based on emissions from 2010. (AAP: Julian Smith)

The world's top climate negotiators have spent the last week gathered in Bonn in Germany's west, but over the weekend their attention was firmly on the nation's south, in the Alps, where leaders from seven of the world's major economies vowed to virtually phase out fossil fuels by the end of the century.

Canada, France, Germany, Italy, Japan the UK and USA agreed that "deep cuts in global greenhouse gas emissions" were required with "a decarbonisation of the global economy over the course of this century". <http://www.abc.net.au/news/2015-06-09/road-to-paris-a-g7-climate-agreement-but-decades-away/6532956>

The G7 is right to call for fossil fuel phase-out, but it can happen sooner

AUTHOR



Frank Jotzo
Director, Centre for Climate
Economics and Policy at
Australian National University

DISCLOSURE STATEMENT

Frank Jotzo is chief investigator on a research grant from the Australian government.



Provides funding as a Member of
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The G7 leaders are hoping to point the world towards a low-carbon transition. EPA/Steve Hoppel/ANU Image

The G7 nations, at this week's summit in Germany, have called for "a decarbonisation of the global economy over the course of this century". Of course, this group of nations is among those most heavily in favour of strong climate action, but the opportunities for climate-friendly growth are everywhere.

<http://theconversation.com/the-g7-is-right-to-call-for-fossil-fuel-phase-out-but-it-can-happen-sooner-42991>

We're treating soil like dirt. It's a fatal mistake, as our lives depend on it

George Monbiot



War, pestilence, even climate change, are trifles by comparison. Destroy the soil and we all starve



☞ "While it now seems that ploughing of any kind is incompatible with the protection of the soil, there are plenty of means of farming without it." Photograph: Lester Lefkowitz/Corbis

Imagine a wonderful world, a planet on which there was no threat of climate breakdown, no loss of freshwater, no antibiotic resistance, no obesity crisis, no terrorism, no war. Surely, then, we would be out of major danger? Sorry. Even if everything else were miraculously fixed, we're finished if we don't address an issue considered so marginal and irrelevant that you can go for months without seeing it in a newspaper.

<http://www.theguardian.com/commentisfree/2015/mar/25/treating-soil-like-dirt-fatal-mistake-human-life>

Under attack in Australia on World Environment Day

David Ritter ABC Environment 5 Jun 2015



Our politicians claim our Reef has been protected, but it's anything but. *Credit: J. P. Krajewski*

Australia's environment has never needed a helping hand like it does now. Yet, more than ever, our leaders are turning their backs on our natural places.

IT IS WORLD Environment Day. And it's lucky that it has a day, because for Australia's natural heritage, it has been a bad year.

They've reviewed national marine reserves, defunded the environment's lawyers, CSIRO, and mocked science.

David Ritter is chief executive of [Greenpeace Australia](#).

<http://www.abc.net.au/environment/articles/2015/06/05/4248838.htm>



Plastic tree #20 by Eduardo Leal, Bolivia. Plastic bags are part of the landscape in the Bolivian Altiplano. The accumulation of plastic bags cause deterioration of the landscapes and agriculture soils and it is associated to the death of domestic and wild animals. Photograph: Eduardo Leal/Courtesy of Atkins CIWEM Environmental Photographer of the Year <http://www.theguardian.com/environment/gallery/2015/jun/03/atkins-ciwem-environmental-photographer-of-the-year-2015-in-pictures>



Solving Australia's innovation 'crisis'

▶ Listen now ▶ Download audio 📄 show transcript

Sunday 24 May 2015 7:45AM

Australia has long prided itself on its status as a world-class innovator. But at the same time, the country seems to be falling lower and lower in the international rankings for collaboration between businesses and academe. So how might the country improve? Mark Dodgson, from the University of Queensland's School of Business, offers some very real solutions.



IMAGE: HOW CAN UNIVERSITIES BETTER COLLABORATE WITH BUSINESS? (GETTY IMAGES)



Sundays 7:45am

Presented by Robyn Williams

<http://www.abc.net.au/radionational/programs/ockhamsrazor/how-to-solve-university-innovation-crisis-business-innovation/6487120>



ANALYSIS

Oil Drilling in Arctic Ocean: A Push into Uncharted Waters

BY ED STRUZIK

As the U.S. and Russia take the first steps to drill for oil and gas in the Arctic Ocean, experts say the harsh climate, icy seas, and lack of infrastructure means a sizeable oil spill would be very difficult to clean up and could cause extensive environmental damage.



ABOUT THE AUTHOR

Canadian author and photographer

Ed Struzik has been writing on the Arctic for three decades. In previous articles for *Yale*

Environment 360, he has reported

on shrinking snowpack and glaciers in the Rockies and the tar sands industry's proposed Arctic export route.

http://e360.yale.edu/feature/Oil_drilling_in_arctic_ocean_a_push_into_uncharted_waters/2882/

Desert farms could power flight with sunshine and seawater

AUTHOR



John Mathews

Professor of Strategic Management, Macquarie Graduate School of Management at Macquarie University

DISCLOSURE STATEMENT

John Mathews does not work for, consult to, own shares in or receive funding from any company or organisation that would benefit from this article, and has no relevant affiliations.

Macquarie University is not a member of The Conversation and does not financially support the project. [Find out more.](#)

The Conversation is funded by CSIRO, Melbourne, Monash, RMIT, UTS, UWA, ACU, ANU, ASB, Baker IDI, Canberra, CDU, Curtin, Deakin, ECU, Flinders, Griffith, the Harry Perkins Institute, JCU, La Trobe, Massey, Murdoch, Newcastle, UQ, QUT, SAHMRI, Swinburne, Sydney, UNDA, UNE, UniSA,



What if jet fuel could be grown sustainably? Fe llyal/Flickr, CC BY-SA

The aviation industry is a major source of greenhouse gas emissions. In 2011 aviation contributed around **3% of Australia's emissions**. Despite improvements in efficiency, global aviation emissions are expected to grow **70% by 2020 from 2005**. While the industry is **seeking new renewable fuel sources**, growing biofuels takes up valuable land and water that could be otherwise used to grow food.

<http://theconversation.com/desert-farms-could-power-flight-with-sunshine-and-seawater-42682>

A MATTER OF OPINION

Agriculture's biggest issue

Posted By: Louise Preece on 30/05/2015 4:00:00 AM | Comments (2)

🖨️ A+ A-

💬 Comments 2



WHAT is the biggest issue facing agriculture at the moment? Is it drought?

If you were the government and listening to Australia's peak farm bodies, drought would certainly be right up there with the big agricultural problems.

There's no doubt that drought is impacting many producers at the moment, but it must also be said the membership of peak farm bodies is rapidly declining.

<http://www.stockandland.com.au/blogs/a-matter-of-opinion/agricultures-biggest-issue/2733526.aspx>



Life in tidal flood 3 by Jashim Salam , Chittagong, Bangladesh. A family watches TV in their flooded house after a tidal flood in Chittagong. Rising sea level has begun to affect 6.5 million people living in Chittagong. Flooding of residential and business areas is common and most of the city could completely submerge as climate change keeps pushing the sea level up. Photograph: Jashim Salam/Courtesy of Atkins CIWEM Environmental Photographer of the Year

<http://www.theguardian.com/environment/gallery/2015/jun/03/atkins-ciwem-environmental-photographer-of-the-year-2015-in-pictures>



“The most beautiful experience we can have is the mysterious - the fundamental emotion which stands at the cradle of true art and true science.”

— [Albert Einstein](#), *Albert Einstein*