COP Land and Soil Management Community of Practice



Soils For Life

Monday 18 May 2015 4:40PM

Listen now

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.

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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



Monday 4pm

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Soils For Life

nday 18 May 2015

Presented by Amanda Vanstone

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MAKE THEIR DOLL HEALTHY (DANIEL FITZOERALD/ABC)

it can remain healthy so we can all be healthy. So how do you make healthy soil? http://www.abc.net.au/radionational/programs/counterpoint/soils-for-life/6472556

Soils: The 'neglected' resource?



by Amado S. Tolentino, Jr.

AS early as 1980, UN's Environmental Law Program encouraged and promoted the development of legislation in the field of soil conservation. Except for FAO's Soil Charter (1981) and a few regional agreements, little has been done to address the use of soils on the basis of sound principles of resource management to enhance soil productivity, to prevent soil erosion and degradation and to reduce the loss of good farmlands to non-farming purposes. The Soils Atlas 2015 identified various reasons for the increasing loss of land and soils, i.e. "cities and roads are spreading, heavy agricultural machinery compacts the ground, and pesticides and fertilizers decimate soil organisms. In addition, there is wind and water erosion." Specifically, agricultural production in many countries has not met the demand of the burgeoning population because of soil loss through accelerated degradation arising out of such processes as salinization, progressive leaching and acidification, loss of organic matter and of soil structure, waterlogging or by pollution from agricultural run-off resulting from the uncontrolled use of pesticides and other dangerous chemicals.

To start with, decision-making regarding soil

Ambassador Amado Tolentino, Jr. participated in the formulation and progressive development of UNEPs Montevideo (Environmental Law) Programme as well as the Draft International Covenant on Environment and Development.



http://www.smh.com.au/photogallery/federal-politics/cartoons/cathy-wilcox-20090909-fhd6.html

7 ways environmentalists have had it wrong

Sara Phillips ABC Environment 18 May 2015



In the future, we may all live in clean, technologically advanced cities. Credit: NASA

A new vision for the future has been released by some of the world's leading environmental thinkers. But many of its suggestions are likely to be confronting for today's environmentalists.

A GRAND NEW VISION for how humans can exist on this planet without destroying the lives and homes of the creatures with which we share it has been published by some of the most noted environmental thinkers alive today.

http://www.abc.net.au/environment/articles/2015/05/18/4220842.htm

Christine Clarke: Agricultural success in Valley starts with healthy soil

By CHRISTINE CLARKE Monday, 20 April 2015

(Published in print: Tuesday, April 21, 2015)

NORTHAMPTON — Eighty years ago, on April 14, 1935, an ominous wall of blowing sand and dust swept across the Great Plains on a day that came to be known as Black Sunday.

During the 1930s, the Dust Bowl days saw huge dust storms ravage the Midwest because of years of overplanting, poorly managed crops and severe drought.

During that massive storm in 1935, people were forced to crawl on their hands and knees in search of shelter, literally unable to see their hands in front of their faces. Cars stalled and stopped in the choking dust. Many thought the end of the world had come.

In response to Black Sunday, and to the damage caused by dust storms, Congress passed Public Law 74-46 on April 27, 1935, and recognized that "the wastage of soil and moisture resources on farm, grazing, and forest lands ... is a menace to the national welfare."

This law established the Soil Conservation Service, now the U.S. Department of Agriculture's Natural Resources Conservation Service. Since that time, our commitment to soil science and soil health has helped America's private landowners implement conservation practices that protect and improve soil and other resources.

Christine Clarke is the state conservationist for the USDA's Natural Resources Conservation Service in Massachusetts. She is based in Amherst. http://www.gazettenet.com/home/16588632-95/christine-clarke-agricultural-success-in-valley-starts-with-healthy-soil

No soil, no life - in praise of dirt

By LAWRENCE WINSHIPGazette Contributing Writer

One of my favorite Pioneer Valley bumper stickers proclaims: "No Farms, No Food!"

Perhaps we should modify this slogan by adding: "And No Soil, No Farms!"

Of course, farms can't function without soil. But I'll go much further. Nothing else can function without soil, either. Soil is much more than a place for our crops to grow: It is the foundation for human civilization. Productive, healthy soils, support food production, but also the life of all the terrestrial and wetland systems that provide essential ecosystem services — for nature itself! And those services make possible all life, including our own. For the most part, though, we're unaware of the part that soil plays in our daily existence.

Lawrence J. Winship, a member of the Hitchcock Center board, is a professor of botany in the School of Natural Science and director of the Southwest Studies Program at Hampshire College. http://www.gazettenet.com/home/2049626-95/soil-soils-center-experience

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Is expensive to apply nitrogen fertiliser, but there are other ways to store carbon in sole. Appl Inspe

For several years, and particularly since the advent of the Coalition's **Direct Action policy** for reducing emissions, the potential of agricultural soils in Australia to soak up carbon has been widely debated. Proponents argue that soils can sequester a large amount of carbon and farmers should be encouraged to, and recognised for, managing their soil to increase this possibility. Others argue soils cannot do the job.

AUTHORS

Budiman Minasiny Associate Professor In Soil Modelling at University of Sydney



DISCLOSURE STATEMENT

Budimen Miniarry receives lunding from Acatralian Research Geoncil Linkege program

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Provides funding as a Member of The Conversation AU sydrary actu au

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https://theconversation.com/storing-carbon-in-soil-potential-opportunities-outweigh-limits-17922



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

Maybe we are all climate change deniers

By Rebecca Reid Gazette Contributing Writer

If you're anything like me, you're a walking contradiction.

I understand climate change and what causes it; I read articles about sea level rise, catastrophic drought and the probability of climate refugees, hunger and planetary strife. I deeply understand what we (I) are doing to our only home. I don't think I'm immune to the suffering that will result.

Rebecca Reid is a co-editor of the Earth Matters column and the former Hitchcock Center photographer. The book discussed here is "Don't Even Think About it: Why Our Brains are Wired to Ignore Climate Change" by George Marshall, published in 2014 by Bloomsbury. It is available from local libraries and bookstores, as well as online booksellers. This is the second of a three-part series on climate change. The first essay, discussing the impacts of climate change in the Northeast, appeared on March 14; the third, about climate action, will be published on 23 May.

http://www.hitchcockcenter.org/earth-matters/994/

The future of agriculture; we must all be ecologists

By LAWRENCE J. WINSHIP Gazette Contributing Writer



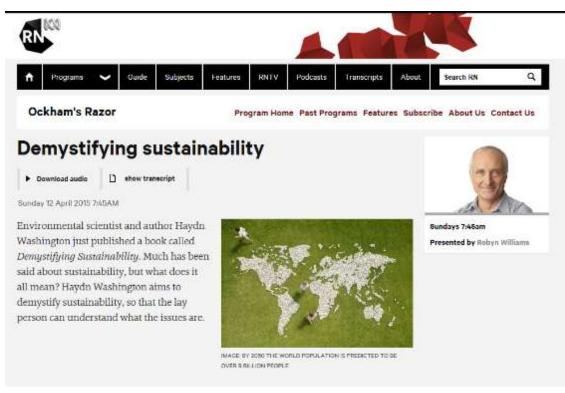
PHOTO BY REBECCA REID

In the autumn, as our neighbors fill their grain bins with barley, and their cellars with potatoes, I am always amazed at their productivity. What a long, interesting journey we and our food plants have taken.

Yet farms are a relatively recent feature of the landscape in the long evolutionary history of Homo sapiens. Our ancestors carved fields out of natural ecosystems with human and draftanimal energy and with powerful forces like fire.

On our farm, dense stands of spruce trees come right up to the field edges. The "tension zone" between trees and crops is evident on every walk. It's obvious which group of plants would overtake the other without human intervention. Hundreds of acres of abandoned farmland, now covered by thick forests of pine, oak, maple and spruce attest to the resurgent vitality of seeds, stumps and sprouts.

Lawrence J. Winship, a former member of the Hitchcock Center for the Environment board, is a professor of botany in the School of Natural Science and director of the Southwest studies program at Hampshire College in Amherst. http://www.hitchcockcenter.org/earth-matters/the-future-of-agriculture-we-must-all-be-ecologists/



http://www.abc.net.au/radionational/programs/ockhamsrazor/demystifying-

sustainability/6377398

19 May 2016; 6 Orlam AEST

The budget harks back to old ideas for northern Australia



Andrew Campbell C Unexer, Reacarch Institute for Environmentand Decitionals as Charles Carwor Conversity

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Trossarer Joe Hockey's **announcement** of a AS5 billion Northern Australia Infrestructure. Facility in last week's budget has been met with **cynicism** in the media.

Bernard Keane writing on Crikey argued "the infrastructure Prime Minister's second budget containing no worthwhile new intrastructure investment outside a northern Australia boondoggle fund".

http://theconversation.com/the-budget-harks-back-to-old-ideas-for-northern-australia-41817

The State We're In: Protect soil on preserved farms

By Warren Reporter

on May 17, 2015 at 7:05 PM



Straddling Mott Road in Frelinghuysen Township, Warren County, is a jewel of a property notable for its vernal habitat, limestone forest, endangered species habitat and ability to support water recharge. Pictured is the Gerson Conservation Easement generously donated by Benjamin Gerson. (courtesy photo)

By Michele S. Byers*Executive Director It's hard to overstate the value of healthy soil on a planet whose population is 7.3 billion people ... and counting.*

Topsoil is the rich upper layer of soil where most nutrients and organic materials are found. The vegetables and fruits we eat - and the green pastures and grazing lands for cattle, dairy herds and other animals - would not exist without it.

You may have seen signs and bumper stickers proclaiming, "No farms, no food." They could just as easily say, "No soil, no food."

http://www.nj.com/warrenreporter/index.ssf/2015/05/the_state_were_in_prote ct_soil.html



buzzword over the years. Frank Szanto, a mechanical engineer from Sydney, wonders if we could leverage the techniques of benchmarking to get optimal outcomes in other areas of human endeavour, like scientific theories. He attempts to try benchmarking on two theories which revolutionised our understanding of our place in the universe.



IMAGE SENCHMARKING HAS BECOME A MANAGEMENT BATZWORD OVER THE VEARS. (GETTY/CAIAIMAGE/PAUL BRADDARY)

http://www.abc.net.au/radionational/programs/ockhamsrazor/benchmarkingtheories/6392148

OPINION: Preserved farms still need protection — for soil

Michele S. Byers 12:07 a.m. EDT 18 May 2015



It's hard to overstate the value of healthy soil on a planet whose population is 7.3 billion people ... and counting.

Topsoil is the rich upper layer of soil where most nutrients and organic materials are found. The vegetables and fruits we eat — and the green pastures and grazing lands for cattle, dairy herds and other animals — would not exist without it.

You may have seen signs and bumper stickers proclaiming, "No farms, no food." They could just as easily say, "No soil, no food."

Michele S. Byers is executive director of the New Jersey Conservation Foundation.

http://www.mycentraljersey.com/story/opinion/readers/2015/05/18/preserved-farms-still-needprotection-soil/27425221/ 000 Subjects Features RNTV Q Guid Podcasts Transcript irch RN Programs **Ockham's Razor** Program Home Past Programs Features Subscribe About Us Contact Us Science education, then and now Listen now Download audio abow transcript Sunday 26 April 2015 7:45AM Dr Alan Lee, a Research Associate at the Sundays 7:45am Philosophy Department at Flinders Presented by Robyn Williams University in Adelaide, believes that the science education of today is inadequate compared to yesteryear. He cites Julius Sumner Miller's television science presentations of the 1960's as illustrating the educational aspirations that television long ago abandoned. According to Dr Lee, MAGE: JULIUS SUMMER MILLER CONDUCTING A LECTURE IN THE Sumner Miller's programs weren't just PHYSICS DEPARTMENT OF THE UNIVERSITY OF SYDNEY FOR THE INTERNATIONAL SCIENCE SCHOOL FOR HIGH SCHOOL STUDENTS 1 designed to engage curiosity, but he SEPTEMBER, 1988, (NATIONAL LIBRARY OF AUSTRALIA) demonstrated and explained scientific laws

and principles, much in the same way as science teachers at school.

http://www.abc.net.au/radionational/programs/ockhamsrazor/how-has-science-education-changed/6412490

Queensland drought: it's not just graziers looking to the skies for answers

OPINION

By ABC's Blythe Moore

Posted about 4 hours agoTue 19 May 2015, 10:39am



Photo: Drought landscape near

Longreach (Blythe Moore)

The rains will come to Longreach eventually, but the question is whether the drought will break before the people in this outback Queensland town do, writes Blythe Moore.

When I first pulled in to Longreach in August 2012 to take up a job with ABC Western Queensland, I didn't know much about the bush. In fact, I'd never even met a cattle grazier before.

But suddenly graziers were everywhere I looked, walking around town in their neatly pressed shirts, shiny belt buckles and new hats.

<u>Blythe Moore</u> is a cross-media reporter for ABC Western Queensland and ABC North West Queensland

http://www.abc.net.au/news/2015-05-19/moore-longreach-drought-looking-to-the-skies-for-

answers/6479968



http://www.abc.net.au/radionational/programs/ockhamsrazor/the-rise-of-basic-science-in-china/6328688

Budget 2015: An assault on Australia's climate programs

John Connor ABC Environment 13 May 2015



The budget assumes emissions will continue as they have, but at the same time dismantles programs like ARENA, which are helping to keep them down.

Last night's budget ignores the global reality that climate change is happening and other countries are moving to address it. It's a liability for our future.

AS THE TREASURER was finalising his Budget speech yesterday, the World Bank released a report on *Decarbonising Development: Three Steps to a Zero Carbon Future* (pdf) and our Bureau of Meteorology announced that El Nino was back — a big problem for Australia as global warming puts our already extreme weather on steroids.

John Connor is chief executive of the Climate Institute. http://www.abc.net.au/environment/articles/2015/05/13/4234917.htm

Budget 2015: No surprises for environment sector; \$702 million to spend on projects over next few years

Analysis by national environment and science reporter Jake Sturmer

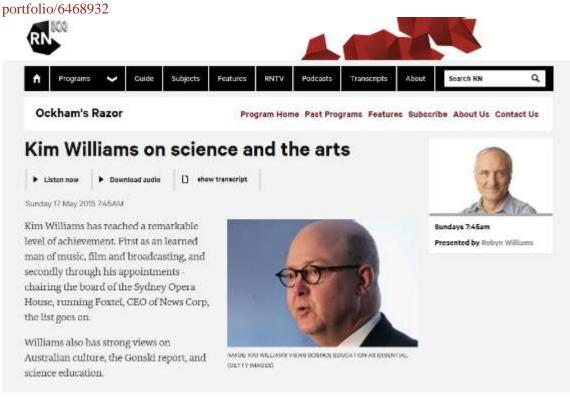
Posted Thu at 10:55amThu 14 May 2015, 10:55am



<u>Photo</u>: The environment sector will have \$702 million available to spend on projects over the next few years.

There were few major surprises in the environment portfolio in this year's federal budget, which was something of a relief to environmentalists shell shocked by last year's cuts.

Some of that extra \$100 million has come from a \$73.2 million cut to the Green Army program, which aims to get 17 to 24-year-olds working on projects including revegetating river catchments, constructing boardwalks, pest animal management, monitoring threatened species and koala habitat restoration. http://www.abc.net.au/news/2015-05-14/few-budget-surprises-for-envirnoment-



http://www.abc.net.au/radionational/programs/ockhamsrazor/kim-williams-arts-and-science-funding/6466314

OPINION

How China's energy is becoming more green than black

BY JOHN A. MATHEWS AND HAO TAN

ABC Environment 12 MAY 2015

💷 Comments (5)

Far from playing catch up, China is leap-frogging the technology that drove the Industrial Revolution in the West and channelling investment into clean energy.

CHINA GENERATES most of its electricity by burning fossil fuels, just as every rising economic power has done since the Industrial Revolution. But to focus on this single fact risks overlooking a notable trend. The Chinese system of power generation is turning green — far more quickly than any other system of comparable size on the planet.

This trand is visible in three areas. The first is also trisity



China's coal industry is gradually being surpassed by clean energy.

http://www.abc.net.au/environment/articles/2015/05/12/4233710.htm

Worried about education? Get stuck in and change it Zoe Williams

We need new tactics to challenge the Conservatives on their schools policy. Here's where we should start



The government's determination to blame schools for every poor outcome has reached the point of neurosis. Illustration: Robert G Fresson

"It's time to stop schools failing our children," wrote the education secretary in the Sunday Telegraph; and what better way to do so than to sack the headteacher, as she suggests? There is no working definition of what Nicky Morgan calls a "coasting' school", nor any obvious stream of heads who can replace the ones she plans to kick out.

http://www.theguardian.com/commentisfree/2015/may/17/worried-education-schools-policy

The environmental impact of creation

By Ian Plimer - posted Monday, 20 April 2015

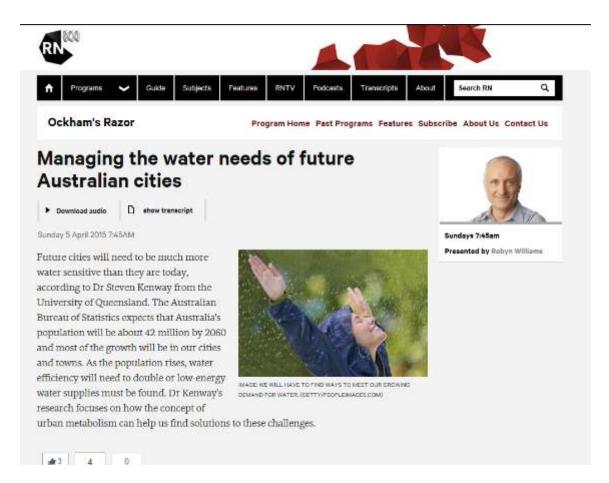
In the beginning God floated the idea of creating Heaven and Earth. He was immediately served with an injunction by Greenpeace to prevent any creative activity whatsoever as He had not undertaken an environmental impact study and had no permit to work.

At the court hearing, God was cross-examined and asked why He wanted to undertake this massive project, especially as it appeared that it was extremely unlikely that any social benefit would derive from His venture. The Wilderness Society reminded God that His Bible stated that "the earth was void and empty and darkness was upon the face of the deep" hence the area where He wanted to creatively meddle could be classified as a pristine wilderness. God successfully argued that, unless Earth could be seen, then it could not be classified a wilderness area. Upon

further questioning, God revealed that by Him saying "Let there be light" the wilderness area could be seen for assessment of its environmental value.

Ian Plimer is emeritus professor of earth sciences at the University of Melbourne and professor of mining geology at the University of Adelaide.

http://www.onlineopinion.com.au/view.asp?article=17274



http://www.abc.net.au/radionational/programs/ockhamsrazor/managing-the-water-needs-of-future-australian-cities/6362618

19 May 2015, 6.04am AEST

Accidents, waste and weapons: nuclear power isn't worth the risks





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AUTHOR

This article is part of The Conversation's worldwide series on the Future of Nuclear. You can read the rest of the series here, and a counterpoint to the views expressed in this article here.

http://theconversation.com/accidents-waste-and-weapons-nuclear-power-isnt-worth-the-risks-41522

19 May 2015, 11 11am AEST

The case for nuclear power despite the risks

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Gay Wor Forlessor of Nuclear Engineering and Gadio opkal Sciences at University of Wikitigan

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Garg Wae does not work ke, consult to, own shares in or science Auriling from any company or organization that would benefit from this acticle, and has no selected affiliations.

The Conversation is functed by CSI95, Malhourne Woowh, RvdT (UTS, UAN, ACM, Mill, ASS Delevilli, Cambers, CDU, Duth, Deskin, ECJ, Finden, Suffit, Ive Hany Perline, rations, 303, La Trobe, Massey, Mandoln, Newtonie, US, OUT SAHMRI; Swinburne, Sydney, UNDA, UNE, UNSA, UNSA, USO, USU, UTAS, UWS, YU and Wellangung.

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Gaunie Administration Official Monash University



ting nuclear plants in the US is being extended for beyond their expected 16

This article is part of The Conversation's worldwide series on the Future of Nuclear, You can read the rest of the series here, and a counterpoint to the views expressed in this article here

http://theconversation.com/the-case-for-nuclear-power-despite-the-risks-41552



http://www.smh.com.au/photogallery/federal-politics/cartoons/cathy-wilcox-20090909-fhd6.html



"An expert is a person who has made all the mistakes that can be made in a very narrow field." - <u>Niels Bohr</u>