



CoP

Land and Soil Management Community of Practice



Humans cause erosion one hundred times faster than normal

By: [Alexander Montoro](#)

5 March 2015



Runoff from

Hurricane Isabel floods the Potomac River at Great Falls, Va., carrying sediment eroded from farm fields upstream. Photo by: Paul Bierman.

Experts have long linked deforestation and intensive farming to worsening erosion rates around the world. Although studied extensively, determining erosion rates due to human-induced activities has rarely been quantified by scientists. However, new research conducted by geologists finds that erosion rates in the southeastern United States increased one hundred times after the arrival of European colonists in the 1700s due to tree clearing and unsustainable agriculture practices.

Read more: <http://news.mongabay.com/2015/0306-montoro-humans-cause-erosion.html#ixzz3VGjeDzx4>

How rain is dependent on soil moisture

It rains in summer most frequently when the ground holds a lot of moisture. However, precipitation is most likely to fall in regions where the soil is comparatively dry. This is the conclusion reached by researchers following an analysis of worldwide data. Their study contributes to a better understanding of soil moisture, a little explored climatic factor.



Within a humid area, the areas with lower soil moisture produce the warmest air, permitting the water vapour to rise the highest and thus meet the colder air layers the soonest. As a result, it rains most frequently at these locations.

Credit: © lily / Fotolia

The water content of soil has a great impact on the regional climate, but many of the connections are still not clear. Researchers at ETH Zurich's Institute for Atmospheric and Climate Science, together with colleagues from Belgium and the Netherlands, examined when and where it rains most frequently on summer afternoons. They wanted to clarify whether more rain fell on days when the soil was dry or moist. And where exactly it was most likely to rain on these days. The contradictory findings of other scientists was the reason for their study. Some researchers observed afternoon precipitation in particular on days with high soil moisture, while others seemingly came to the opposite conclusion -- the rain fell in places where the soil, compared with surrounding areas, was driest.

1. Benoit P. Guillod, Boris Orlowsky, Diego G. Miralles, Adriaan J. Teuling, Sonia I. Seneviratne. **Reconciling spatial and temporal soil moisture effects on afternoon rainfall.** *Nature Communications*, 2015; 6: 6443 DOI: [10.1038/ncomms7443](https://doi.org/10.1038/ncomms7443)

<http://www.sciencedaily.com/releases/2015/03/150306102714.htm>

Agriculture consultant turns to biofertilisers to boost soil health

WA Country Hour By Olivia Garnett

Print Email Facebook Tweet 15 More

Updated 17 Mar 2015, 4:20pm

With the rising costs of inputs, farmers are being urged to better understand the health of their soils.

After all, everything in agriculture is connected to soil in some way and many argue having a better handle on soil nutrition can boost on-farm fertility and dramatically reduce production costs.

"Agriculture since the green revolution, post World War II, has been quite a chemical-based system and quite a destructive force on the planet," said regenerative agricultural consultant, Kym Kruse, of RegenAg.

Mr Kruse believes every farmer can benefit from learning a little more about what is happening beneath their feet.

"There are 140,000 farmers in Australia and only approximately 5,000 could be considered as using regenerative practices," he said.



PHOTO: Kym Kruse encourages farmers to take more control of the health of their soils. (Olivia Garnett)

MAP: Albany 6330



AUDIO: Agricultural consultant Kym Kruse urges farmers to reduce their reliance on expensive artificial fertilisers (ABC Rural)

<http://www.abc.net.au/news/2015-03-17/soil-health-at-front-and-centre-with-rising-costs-of-farm-inputs/6326044>

Where have all the soil scientists gone?



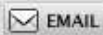
by *Jodi DeJong-Hughes*

Extension educator, crops, University of Minnesota

3 Articles

Xpert

Mar 11, 2015



EMAIL



SHARE



Tweet



+1



Recommend

7

COMMENTS 0

More About: Drainage, Soil, Conventional Tillage, No-Till, Strip-Till

RELATED MEDIA



5 questions to ask farmers about soil health

Signs of healthy soil



Advertisement

I have been an educator of soils at

the University of Minnesota Extension for 18 years. I have watched soil scientist retire, leave to other positions or pass away. Due to tight budgets or changes in priorities, many are not replaced. When a position does open up, many graduates choose the alluring world of crop industry over the underappreciated educator of soils.

<http://cornandsoybeandigest.com/tillage/where-have-all-soil-scientists-gone>

NSW election 2015: Labor vows to ban CSG production in Pilliga Forest in state's north-west

By [Nick Dole](#)



[Photo: Energy giant Santos is exploring for coal seam gas in the Pilliga. \(File photo\) \(ABC News\)](#)

NSW Opposition Leader Luke Foley has vowed to permanently ban coal seam gas production in the Pilliga Forest in the state's north-west.

Mr Foley said the risks of water contamination were too big to ignore.

"There's some parts of the state that must be off limits to coal seam gas permanently, and the recharge zone for the Great Artesian Basin has to be one of them," he said.

<http://www.abc.net.au/news/2015-03-19/labor-vows-to-permanently-ban-csg-production-in-pilliga-forest-/6333310>



<https://www.youtube.com/watch?v=0yRYdvEzXag>

Did you know soils can clean and capture water?

By PorkNetwork News Source March 23, 2015 | 12:16 pm EDT

 COMMENTS



 PRINT



In celebration of the International Year of Soil 2015 (IYS), the Soil Science Society of America (SSSA) is coordinating a series of activities to educate the public about the importance of soil. April's theme is "Soils Clean and Capture Water."

According to IYS monthly leader Gary Pierzynski, "Soil is a great water purifier. There are three ways that soil cleans water: physical, chemical and

biological." Here are some facts from Pierzynski, a soil science professor at Kansas State University.

<http://www.porknetwork.com/news/did-you-know-soils-can-clean-and-capture-water>

Aluminum can stunt plant roots in just minutes

[University of Queensland](#) → [Original Study](#)

Posted by [Aimee Parker-Queensland](#) on 16 March 2015



"Soil degradation occurs naturally, but is exacerbated by agricultural activities and is expensive to reverse, so another option is to cultivate crops with better tolerance for the soil conditions," says Peter Kopittke. (Credit: ["plant and roots" via Shutterstock](#))

You are free to share this article under the [Attribution 4.0 International](#) license.

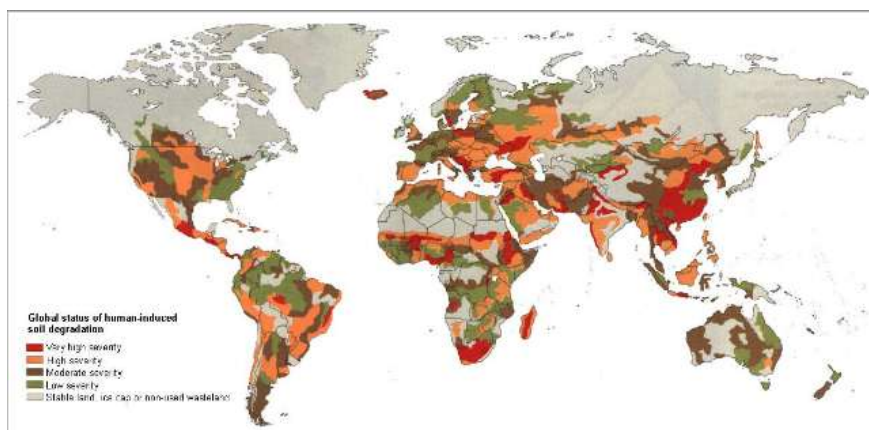
Scientists have discovered how aluminum, a toxic result of soil acidification, acts to reduce plant growth.

The increasing human population and continuing degradation of farm soils has made food security a critical issue, says researcher Peter Kopittke of the University of Queensland School of Agriculture and Food Sciences. <http://www.futurity.org/aluminum-soil-roots-875422/>

Soil science, food production and hunger in Africa

[10/03/201524/02/2015](#) [Under researchafrica](#), [arid soils](#), [food](#)

A child dies from malnutrition or related causes every five seconds. Every child who dies from hunger is assassinated. And we have a herd of market traders, speculators and financial bandits who have turned wild and constructed a world of inequality and horror. We have to put a stop to this.



<http://www.fao.org/docrep/u8480e/u8480e0d.htm>

Farmers of the future will utilize drones, robots and GPS

18 March 2015 by Alex Thomasson, The Conversation



A conceptual variable-rate fertilization system that would use sensors to determine how much fertilizer to apply in real-time. Credit: R Sui and J A Thomasson, CC BY-NC-ND

Today's agriculture has transformed into a high-tech enterprise that most 20th-century farmers might barely recognize.

Read more at: <http://phys.org/news/2015-03-farmers-future-drones-robots-gps.html#jCp>

World's most iconic ecosystems: World heritage sites risk collapse without stronger local management

Without better local management, the world's most iconic ecosystems are at risk of collapse under climate change, say researchers. Protecting places of global environmental importance such as the Great Barrier Reef and the Amazon rainforest from climate change will require reducing the other pressures they face, for example overfishing, fertilizer pollution or land clearing.



Improved local management of fishing, nutrient runoff and dredging could increase the Great Barrier Reef's resilience to ocean acidification and coral bleaching from climate change.

Credit: Ed Roberts

Without better local management, the world's most iconic ecosystems are at risk of collapse under climate change, say researchers in *Science*. Protecting places of global environmental importance such as the Great Barrier Reef and the Amazon rainforest from climate change will require reducing the other pressures they face, for example overfishing, fertilizer pollution or land clearing.

Journal Reference:

1. M. Scheffer, S. Barrett, S. R. Carpenter, C. Folke, A. J. Green, M. Holmgren, T. P. Hughes, S. Kosten, I. A. Van De Leemput, D. C. Nepstad, E. H. Van Nes, E. T. H. M. Peeters, B. Walker. **Creating a safe operating space for iconic ecosystems.** *Science*, 2015 DOI: [10.1126/science.aaa3769](https://doi.org/10.1126/science.aaa3769)

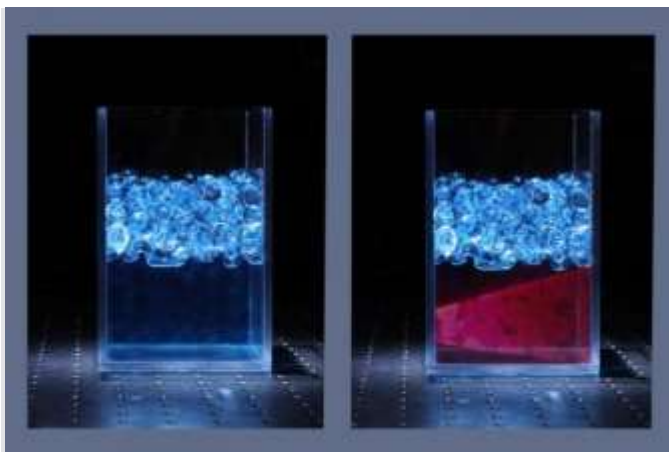
<http://www.sciencedaily.com/releases/2015/03/150319143325.htm>



https://www.youtube.com/watch?v=xgy9ArBpNiI&index=11&list=PL4J8PxoprGa3wFYSXFu-BW_mMatleIt0

3-D imaging reveals hidden forces behind clogs, jams, avalanches, earthquakes

When you walk on the beach, the sand supports your weight like a solid. What happens to the forces between the sand grains when you step on them to keep you from sinking? Researchers have developed a new way to measure the forces inside materials such as sand, soil or snow under pressure. The technique uses lasers coupled with force sensors, cameras and advanced computer algorithms to measure the forces between neighbouring particles in 3-D.



Researchers have developed a new way to measure the forces inside materials such as sand, soil or snow under pressure. Using a solution of hundreds of translucent hydrogel beads in a Plexiglass box to simulate soil, sand or snow, the technique relies on lasers coupled with force sensors, cameras and advanced computer algorithms to measure the forces between neighbouring particles in 3-D.

Credit: Photo by Felice Frankel and Joshua Dijkstra.

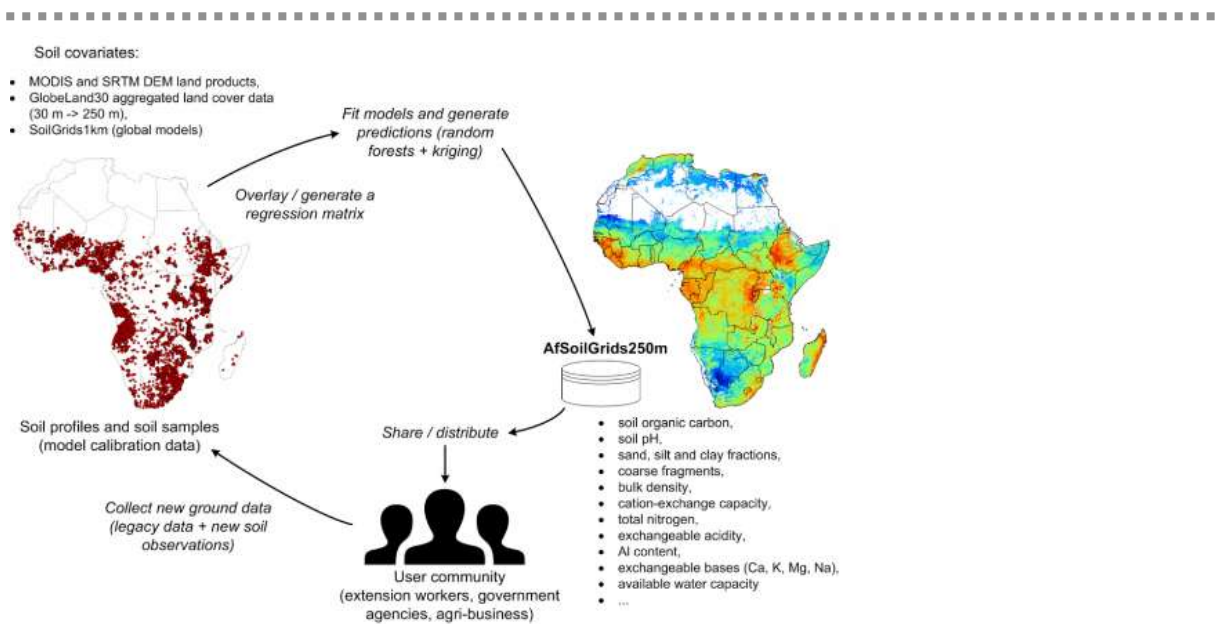
Pick up a handful of sand, and it flows through your fingers like a liquid. But when you walk on the beach, the sand supports your weight like a solid. What happens to the forces between the jumbled sand grains when you step on them to keep you from sinking?

Journal Reference:

1. Nicolas Brodu, Joshua A. Dijkman, Robert P. Behringer. **Spanning the scales of granular materials through microscopic force imaging.** *Nature Communications*, 2015; 6: 6361 DOI: [10.1038/ncomms7361](https://doi.org/10.1038/ncomms7361)

<http://www.sciencedaily.com/releases/2015/03/150305081702.htm>

Next-generation soil information system of Africa at 250 m resolution published



Comparison of predicted soil organic carbon content (fine earth) for an area around the town of Arusha (Tanzania): SoilGrids1km (left) and AfSoilGrids250m (right).

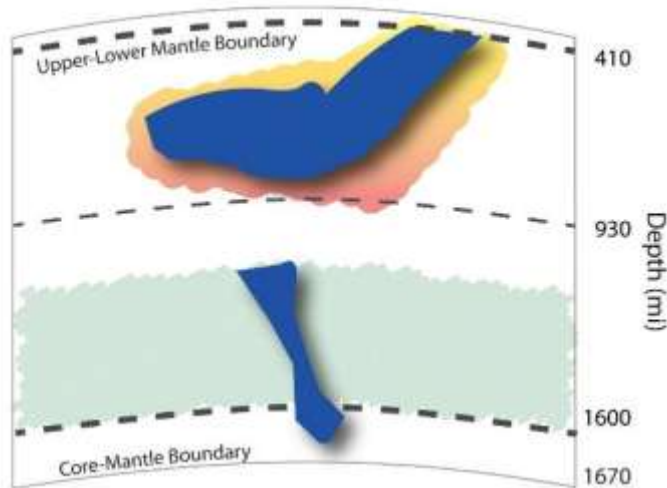
In Africa, significant amounts of soil nutrients are lost every year due to inappropriate or unsustainable soil management practices. The [Montpellier Panel](#) has estimated that the economic loss in Africa due to poverty, climate change, population pressures and inadequate farming techniques is about 68 billion USD per year. This is considered to partially be the result of insufficient use of soil management knowledge. To help bridge the soil information gap on the African continent, ISRIC - World Soil Information, in collaboration with the Earth Institute, Columbia University, World Agroforestry Centre, Nairobi and the International Center for Tropical Agriculture (CIAT), has produced predictions of various soil properties for the whole African continent at 250 m spatial resolution at multiple standard soil depths. This product is referred to as the "AfSoilGrids250m" data set and is

one of the main deliverables in 2015 of the Africa Soil Information Services project (AfSIS).

<http://isric.org/content/next-generation-soil-information-system-africa-250-m-resolution-published>

A stiff new layer in Earth's mantle: Why the planet's conveyor belt hangs up 930 miles deep

13 hours ago



A simplified image of a slab from one of Earth's tectonic plates sinking through the upper mantle above, through the boundary between the upper and lower mantle 410 miles deep, then stalling and pooling at a depth of 930 miles, where ...[more](#)

By crushing minerals between diamonds, a University of Utah study suggests the existence of an unknown layer inside Earth: part of the lower mantle where the rock gets three times stiffer. The discovery may explain a mystery: why slabs of Earth's sinking tectonic plates sometimes stall and thicken 930 miles underground.

Read more at: <http://phys.org/news/2015-03-stiff-layer-earth-mantle-planet.html#jCp>

Climate-warmed leaves change lake ecosystems

Rising soil temperatures significantly affect autumn leaves and consequently the food web, appearance and biochemical makeup of the lakes and ponds those leaves fall into, a new study finds.

Journal Reference:

1. Fey, Samuel; Mertens, Andrew; Beversdorf, Lucas; McMahon, Katherine; Cottingham, Kathryn. **Recognizing cross-ecosystem responses to changing temperatures: soil warming impacts pelagic food webs.** *Oikos*, 21 December 2014 DOI: [10.1111/oik.01939](https://doi.org/10.1111/oik.01939)

<http://www.sciencedaily.com/releases/2015/02/150225094323.htm>



<https://www.youtube.com/watch?v=2hLhuMscFqc&feature=youtu.be>

World's largest asteroid impacts found in central Australia

15 hours ago



Dr Andrew Glikson with a sample of suevite -- a rock with partially melted material formed during an impact. Credit: D. Seymour

A 400 kilometre-wide impact zone from a huge meteorite that broke in two moments before it slammed into the Earth has been found in Central Australia.

Read more at: <http://phys.org/news/2015-03-world-largest-asteroid-impacts-central.html#jCp>

Winter Ends with Little Snowpack over much of the West

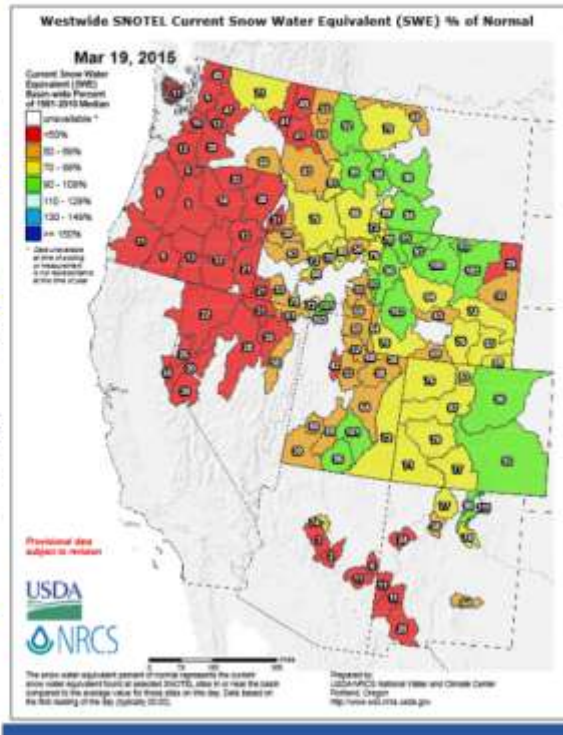
03/19/2015

Weekly Water and Climate Update

March 19, 2015

The [National Water and Climate Center](#) produces this weekly report in cooperation with the National Drought Mitigation Center and other Federal agencies. The report focuses on atmospheric precipitation, and temperature conditions in the western U.S., and features a national drought summary.

The [Westside SNOTEL Current Snow Water Equivalent \(SWE\) % of Normal map](#) shows the largest snowpack deficits (red areas) in the Cascades and Olympics and eastern Washington, all of Oregon, the Sierra Nevada in California, as well as most of Nevada, Arizona, southwest New Mexico, four basins in Idaho, one in Wyoming and one in Utah. [More >>](#)



<http://www.wcc.nrcs.usda.gov/ftpref/support/drought/dmrpt-20150319.pdf>

You Tube MUSIC CHANNEL

The Science of Soil Health: Compaction

https://www.youtube.com/watch?v=GTUVRieYoZ8&index=9&list=PL4J8PxoprGa3wFYSXFu-BW_mMatleIt0

Dew Collector: Greenhouse for food growth, water

21 March 2015 by [Nancy Owano](#)

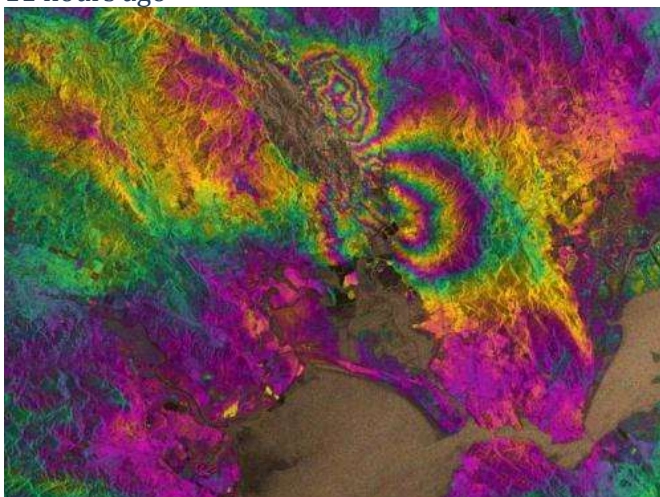


In Ethiopia, the University of Gondar's Faculty of Agriculture is actively involved in real-life problems that are familiar to many farmers on the continent. The university is pursuing research as well as development efforts and toward that end has entered links with an organization called Roots Up. The latter says it will build a workshop on the campus for farmers living nearby and facing tough issues and harsh living conditions. The organization said the centre will be made out of "Earthbags."

Read more at: <http://phys.org/news/2015-03-dew-collector-greenhouse-food-growth.html#jCp>

3D satellite, GPS earthquake maps isolate impacts in real time

11 hours ago



[Enlarge](#)

Satellite radar image of the magnitude 6.0 South Napa earthquake. The "fringe" rainbow pattern appears where the earthquake deformed the ground's surface, with one full cycle of the color spectrum (magenta to magenta) showing 3 centimeters of ...[more](#)

When an earthquake hits, the faster first responders can get to an impacted area, the more likely infrastructure—and lives—can be saved.

<http://phys.org/news/2015-03-3d-satellite-gps-earthquake-isolate.html>

Dame damns coal

MIKE FOLEY

12 Mar, 2015 04:00 AM

Comments 2



FARMERS have been crying out for years to protect our precious prime farming lands from mining and gas, but until now the plea has largely fallen on deaf ears.

But they hope an unexpected intervention this week from former NSW governor Dame Marie Bashir can jolt politicians into action.

Speaking at an International Women's day event in Sydney on Sunday, the popular Dame Marie ditched the shackles of her former non-political role.

<http://www.theland.com.au/news/agriculture/general/news/dame-damns-coal/2726227.aspx>

Researchers rediscover old ecological principles that give pests the “heebie-jeebies”

03/17/2015



Researchers rediscover old ecological principles that give pests the “heebie-jeebies”



unlock the
SECRETS
IN THE SOIL

[Learn more](#) about the basics and benefits of soil health.

If you're a pest looking for a quick snack, do not—repeat, do NOT—stop at the Dakota Lakes Research Farm. With an estimated 2 billion predator insects per acre, pests looking for lunch are more likely to **become** lunch, thanks to the ecological principles Dr. Dwayne Beck and his research team are rediscovering and refining.

Beck and his team want to ensure those predators keep watch over their crops, so they haven't used insecticides on the farm in nearly 10 years—and they haven't had to. [Watch the latest two-minute video on Beck](#) and his "systems approach" to agroecology to learn more and discover why predator species on the farm give pests the "heebie-jeebies." **It's science you can really dig!**

USDA is an equal opportunity provider and employer.

11 February 2015, 4:45pm AEDT

No evidence wind farms directly impact health: NHMRC

AUTHOR



James Whitmore
Editor at The Conversation

INTERVIEWED



Will J Grant
Researcher / Lecturer, Australian National Centre for the Public Awareness of Science at Australian National University



Simon Chapman
Professor of Public Health at University of Sydney



Bruce Armstrong 
Professor of Public Health at University of Sydney

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, USC, USQ, UTAS, UWS, VU and Wollongong.



People are unlikely to experience ill health further than 500 metres from wind turbines. [Credit: Gareth Hogg, GQ \(VU, UQ\)](#)

There is no direct evidence that wind turbines affect physical or mental health, according to a [review](#) of the evidence by the National Health and Medicine Research Council (NHMRC).

<http://theconversation.com/no-evidence-wind-farms-directly-impact-health-nhmrc-37470>

Swiss soil reveals climate change in mountain ecosystems

Low-tech experiment produces accurate data on threat to plant biodiversity and may also help with carbon capture



📷 Precious pasture.... soil is the second-most important carbon sink after the oceans. Photograph: Alamy

The fresh snow covers the [Aubonne valley](#) overlooking Lake Geneva. Clumps of beech, maple and juniper trees cling to the slopes of the Jura highlands.

Scientists from [Lausanne Polytechnic \(EPFL\)](#) and Switzerland's Forest, Snow and Landscape Research Institute (WSL) cut more than 700 segments of earth, complete with vegetation, at an elevation of 1,400 metres. They then replanted the samples lower down the slope, in special cases fitted with sensors, enabling the researchers to study the impact of global warming on mountain ecosystems.

<http://www.theguardian.com/environment/2012/feb/28/renewable-hydrogen-power-electricity-corsica>

MODIS satellite image

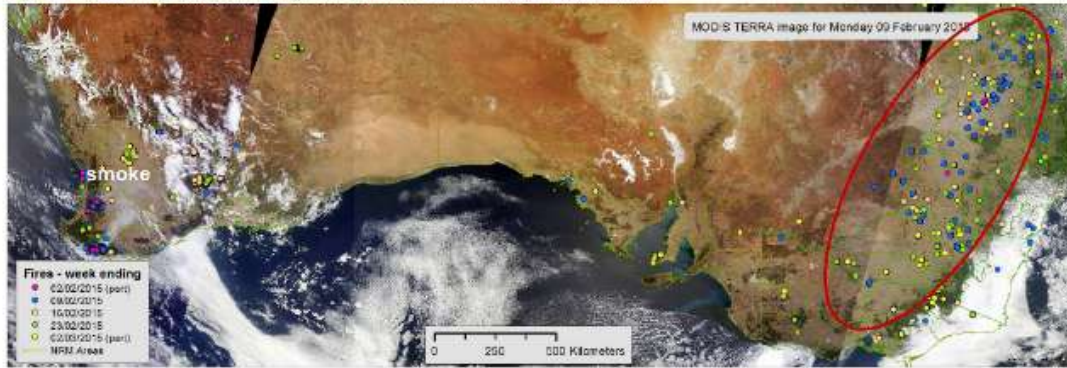
There were only 14 fires detected by the MODIS satellites in South Australia in February 2015 (Figure 7). This is a very low number for this time of the year.

In contrast, fires burned large areas in south-western Western Australia (Photo 1) leaving 85,000 ha exposed to wind and water erosion.

Fire activity increased from last month (red circle in Figure 6) in the eastern wheat/sheep belt of New South Wales and Victoria. Fires were spread evenly across the weeks of February 2015.

According to local DustWatchers most of the fire activity was related to stubble burning in preparation for the upcoming growing season.

Figure 7. Fires detected by MODIS satellite during February 2015. Colour markers indicate the week of detection



The DustWatch Team

Contact us at dustwatch@environment.nsw.gov.au

The MODIS image is courtesy of MODIS Rapid Response Project at NASA/GSFC; the fire data is courtesy of the Fire Information for Resource Management System (FIRMS) and the rainfall map is from the Australian Bureau of Meteorology. This project would not be possible without funding from Carling for our Country, Ryvenite, Western, Central West, Central Tablelands and Murray Local Land Services (LLS) in NSW; the NSW DPA, the Mallee and North Central CMAAs in Victoria; Cyle Pennequin and Murray Darling Basin NRM in South Australia and in-kind contributions from ANU in NSW. We also thank our volunteer DustWatchers who provide observations and help maintain the instrument.

<http://www.environment.nsw.gov.au/resources/dustwatch/150156DWNL.pdf>

Treat soil carefully when taking it off, replacing in reclamation



pete stahl

Pete Stahl

Dickinson, N.D. – Soils are extremely resilient to disturbance, especially if they are treated with tender loving care, according to Pete Stahl, associate professor of soil ecology at the University of Wyoming.

Stahl spoke on recovering the soil microbial community in order to have productive rangeland or cropland after an oil or mining company has taken the soil off and replaced it in reclamation projects.

http://www.farmandranchguide.com/news/crop/treat-soil-carefully-when-taking-it-off-replacing-in-reclamation/article_533cbf24-ce7d-11e4-b14b-5baa0a0875a5.html

Chlorine use in sewage treatment could promote antibiotic resistance

Chlorine, a disinfectant used in most wastewater treatment plants, may be failing to eliminate pharmaceuticals from wastes. As a result, trace levels get discharged from the treatment plants into waterways. Now, scientists are reporting that chlorine treatment may encourage the formation of new, unknown antibiotics that could enter the environment, potentially contributing to the problem of antibiotic resistance.



Graduate student Nicole Kennedy measures the antibiotic activity of various samples in the lab.

Credit: Olya Keen

Chlorine, a disinfectant commonly used in most wastewater treatment plants, may be failing to completely eliminate pharmaceuticals from wastes. As a result, trace levels of these substances get discharged from the plants to the nation's waterways. And now, scientists are reporting preliminary studies that show chlorine treatment may encourage the formation of new, unknown antibiotics that could also enter the environment, potentially contributing to the growing problem of antibiotic resistance.

<http://www.sciencedaily.com/releases/2015/03/150322080204.htm>

Save Our Soils

The Save Our Soils campaign was initiated in December 2012 by Nature & More in the framework of the FAO Global Soil Partnership. Nature & More is a Dutch-based specialist in fresh organic fruits and vegetables. With growers and consumers in six continents Nature & More is in a unique position to launch this global awareness campaign, using the slogan 'Healthy Soils = Healthy Food'. The Save Our Soils campaign has gained momentum quickly and now counts over 70 international partners and NGO's, lead by its international patron the Alternative Nobel Prize winner Vandana Shiva.

<http://www.saveoursoils.com/news/134/ifoam-teaming-up-with-fao-in-save-our-soils-2015.html>

June 26-29, 2015

Celebrating Soil - Celebrating Life

From June 26th - 29th, the UN International Year of Soils will be celebrated in the Netherlands in an international conference, with prominent international guests and keynote speakers.



<http://saveoursoils.com/agenda/132/june-26-29-2015.html>



<http://saveoursoils.com/>



Welcome to DesertLand conference

The first DESERTLAND conference was organized in 2013 in Ghent, Belgium. Due to its success and related impact we received a lot of requests to organize a second conference on Desertification and Land Degradation.

We listened and agreed. As of now we can confirm you that the symposium will indeed have a second edition! **DESERTLAND II** will take place on **16 & 17 June 2015** again at the [NH Hotel Gent Belfort](#) in Ghent, Belgium.

We proudly announce having received the cooperation of the following Belgian partners: UNESCO-Flanders, the UNESCO IHP-Belgian Committee, the UNESCO Chair on Eremology (Ghent University), the Department of Soil Management (Ghent University), Gent BC and Gende Publi Productions. More international partnerships will follow and will be highly appreciated as well.

Some specifics of the DesertLand Conference



As the DesertLand conference aims at attracting presentations of scientists, project leaders, NGO's, communities, societies but also federal, local, governmental and private (profit or non-profit) organizations and sponsors. Everyone is encouraged to present their work, activities, projects and products either by means of a (2m x 2m) stand and/or an oral or poster presentation.

Considering the equal importance of 'poster' and 'oral' presentations, the DesertLand conference aims at attracting quite a number of poster presentations, giving the authors not only ample time for discussion during the poster session breaks, but also allow a 5 minutes short oral presentation of the poster in front of the audience.

Important Dates

<http://desertland.eu/>

Sponsors



Partners



Healthy soils equal healthy humans and a healthy planet

Deborah L. Oleynik 9:57 a.m. MDT 23 March 2015



(Photo: File photo)

CONNECT | TWEET | LINKEDIN | COMMENT | EMAIL | MORE

The topic today is soil. Not only in this column but also around the world. The United Nations has declared 2015 as the International Year of the Soil and the National Institute of Health is engrossed in examining the genetics of bugs that live in and on our body. This ongoing project is called the Common Fund's Human Microbiome Project. What, you may ask, do these two things have in common?

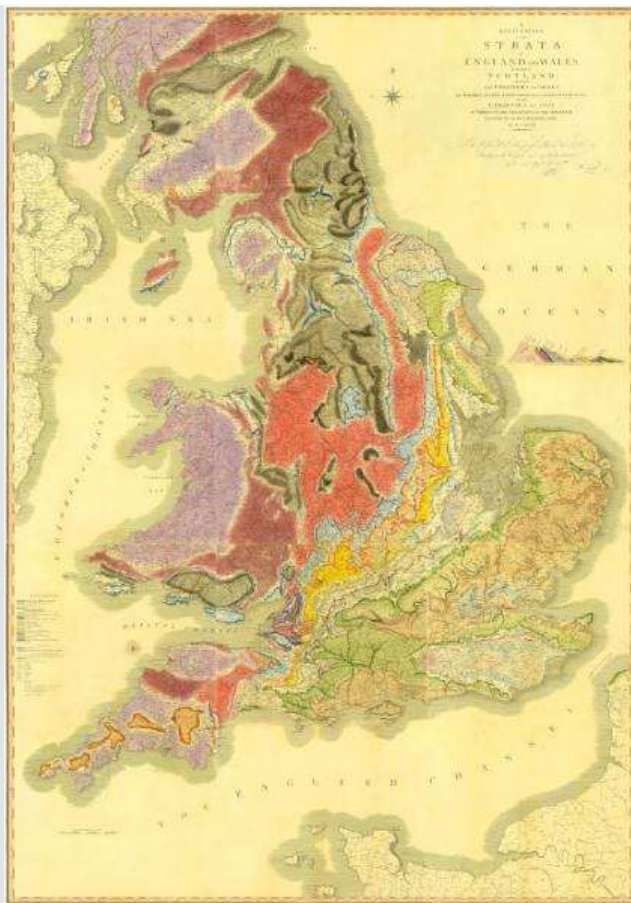
The definition of soil for the purpose of this article, as quoted from the Merriam Webster Dictionary, is "a medium in which something takes hold and develops." With this definition we can consider the soil of our intestinal tract and the soil that makes

up our agricultural land in the same context. The composition of the soil determines how well the system functions and is key to superb health for each ecosystem.

<http://www.greatfallstribune.com/story/life/health-and-fitness/2015/03/23/healthy-soils-equal-healthy-humans-healthy-planet/25220659/>

Archivists unearth rare first edition of the 1815 'Map that Changed the World'

A rare early copy of William Smith's 1815 Geological Map of England and Wales, previously thought lost, has been uncovered by Geological Society archivists. The new map has been digitized and made available online in time for the start of celebrations of the map's 200th anniversary.



William Smith 1815 map c. The Geological Society

A rare early copy of William Smith's 1815 Geological Map of England and Wales, previously thought lost, has been uncovered by Geological Society archivists. The new map has been digitised and made available online in time for the start of celebrations of the map's 200th anniversary, beginning with an unveiling of a plaque at Smith's former residence by Sir David Attenborough.

Timetable/Global Soil Week 2015
Berlin, 19–23 April




Global
Soil Week 2015


	Sunday, 19 April	Monday, 20 April	Tuesday, 21 April	Wednesday, 22 April	Thursday, 23 April
09.00			09.00 – 13.00 Dialogue Sessions	09.00 – 13.00 Dialogue Sessions	09.00 – 12.00 Open Space Format Sessions
10.00		10.00 – 12.00 Opening Plenary			
11.00		12.00 – 14.00 Lunch Break Forum			
12.00			13.00 – 15.00 Lunch Break Forum	13.00 – 15.00 Lunch Break Forum	13.00 – 16.00 Open Space Format Sessions
13.00					
14.00		14.00 – 18.00 Dialogue Sessions	15.00 – 17.00 Nexus Forum Plenary	15.00 – 17.00 The Way Forward Plenary	
15.00					
16.00					
17.00	17.00 – 19.00 Registration				16.30 Sight Seeing Tour
18.00					
19.00	19.00 Global Soil Week Reception		19.00 Global Soil Week Joint Dinner		

<http://globalsoilweek.org/global-soil-week/gsw-2015/gsw-2015-timetable>

CARBON SEQUESTRATION AND CLIMATE CHANGE



Rattan Lal
College of Food, Agriculture
and
Environmental Sciences
The Ohio State University
Columbus, OH 43210



http://presenter.cfaes.ohio-state.edu/link/Rattan_Lal_5-7-12_-_Flash_%28Large%29_-_20120507_03.37.06PM.html



Soils: Introducing the World Beneath Our Feet

Learn about soils, the variety of life they contain and how humans impact this fragile system, with this free online course.

<https://www.futurelearn.com/courses/soils>

Join now - starts 6 Jul

Lancaster
University



FREE online course

2015 Dubbed the 'International Year of Soils' [Interview]



By **Jessica Paggett** March 11, 2015 11:30 AM



Share on Facebook



Share on Twitter

2015 Is the 'International Year of Soils'



There are 20,000 soil series (different types of soil) in the United States, Dr. David Weindorf, Associate Dean for Research at Texas Tech Plant and Soil Sciences Department, told Tom and Laura Wednesday (March 11). And they all have different impacts on different crops.

The year 2015 was designated **the international year of soils** by the United Nations to help recognize the importance that soil holds as a natural resource worldwide.

<http://kfy.com/2015-international-year-of-soils-interview-dr-david-weindorf-texas-tech/>

Plants, in a state of nature, are always warring with one another, contending for the monopoly of the soil,—the stronger ejecting the weaker,—the more vigorous overgrowing and killing the more delicate. Every modification of climate, every disturbance of the soil, every interference with the existing vegetation of an area, favours

**some species at the expense of others. — Sir Joseph Dalton
Hooker**

(With Thomas Thomson) *Flora Indica: A Systematic Account of the Plants of British India* (1855), 41.