

Permaculture Cairns Incorporated - Established July, 2007

Web Site: www.permaculturecairns.org.au



Permaculture Cairns News

EMPOWERING COMMUNITIES WITH SUSTAINABLE SOLUTIONS

Care for the Earth, Care for people, Share the excess

June Meeting & Information Exchange Night

Tuesday 16th June at 6pm for a 6.30pm start

Meeting Venue: ARC Disability Centre – 92 Little Street Manunda

(opposite the park behind Cominos House)

Members please bring a plate of finger food to share and a friend
Financial Members free, Non Members \$5

AGENDA

Welcome

Workshop and Event Notices

Permaculture Principle Number 6, a practical explanation.

Guest Speaker: Shelly Langford on Home Schooling, see note below

Craig Phillipson and his comments on recently completing a PDC

Movie that matters if time allows

Book of the Month, Plant of the Month, Tool of the Month, Tip of the Month

Members Book Library

Break for a cuppa, nibbles and a chance to network with like minded people

Finish 9.00pm

Guest Speaker Shelly Langford - "Home Education the Natural Learning Option"

Shelly Langford is a mother of two and has been living the permaculture life style for sixteen years. She has seen the permaculture movement change from a vision of permanent or sustainable agriculture to one of permanent or sustainable culture. Shelly is graduate of Geoff Lawton's Permaculture Design Course.. Permaculture principals have grown beyond our agriculture and into our lifestyle, households, communities and education. She discovered Home Education due to her son not fitting into the school system. Not realising this was an option to educate her children from the beginning she is passionate to make sure others realise this is a legal option for their families. She has run local groups on the Sunshine Coast, Parent support nights, attending the 2002 review on home schooling and travelled Australia with the Home School Conference in 2007. Now her children are young adults and following their dreams she is wanting to help support others. One of her favourite quotes is from John Holt *"We can think of ourselves not as teachers but as gardeners. A gardener does not 'grow' flowers; he tries to give them what he thinks they need and they grow by themselves."* John Holt

The EcoFiesta on the 31st May was a great outing, there were thousands of people attending the fun and information day on the Wharf, there were lots of information booths, demonstrations, kids activities and music. A big thank you to those that manned our Permaculture Cairns table – Peter Spooner our AV Technician was there all day with our computer running photos of events we have held throughout the year, Christine MacIntosh, a member, Lois Hayes, our Secretary, Leon Van Wyck, a member, Bruce Zell, our Vice President, Jenny McGrath our Treasurer and Julia Norton a member.

Permaculture Expo at the ARC Hub in McNamara Street was a resounding success.

The movie from the Australian Food Sovereignty Alliance “ FAIR FOOD” was very popular (so popular, we had to purchase more chairs on the day) and the discussion afterwards was well attended.

Yvonne Cunningham wowed them again with her knowledge of the tropical garden, the good bugs and the bad bugs and what to do with the food you grow. Thanks Yvonne for a great presentation.

Cheryl Kemp gave us a talk about what shocking things are being done to our food without our knowledge and how it is affecting our health. Thanks Cheryl for enlightening us on these evils.

Daryl Douglas gave a great run down on the solar issues and the pros and cons of using solar power.
Thanks Daryl for all the information.

A big thanks to all the stall holders for coming to show and sell your wares, Christian Cluver with his Cob Building Home stand, Tony from Tony Lawson Designs a local building company incorporating tropical home design, Emma Lodge with her Education and Nutrients for children stand, Judy Noller and her wonderful home crafted Soaps, Jason Webber and his environmentally friendly cleaning products, Christine McIntosh with her craft items and plants, Lisa Price and Cheryl Kemp with Biodynamic Preparations and veggie seedling, Leah Pepper with her fantastic Shitake Mushrooms, Daryl Douglas with the Alternative Technology information stand, Sue Barclay and friends with the Cairns Seed Savers info table, and Len Specht with his Wicking Beds.

The Sausage Sizzle was organised and cooked by Lois Hayes and Mary Ettling, thanks heaps for all your good work.

Ailsa Bean and husband for organising the Coffee/Tea and Cakes.

Thanks to all those who came and filled in, Julia Norton, Niki Biro and Yujong Song, and there could have been others I didn't get to meet we appreciate your help.

The Demonstrations included a Straw Bale Garden complete with Plants – tomato, kale, lettuce, Brazilian spinach, five in one herb and flowers. Thanks to Robert Virgine for the Composting and Rocket Stove demonstrations.

For the kids there were chickens and potting mix and seeds for planting, the rocket stove - and let's not forget Hans and his beautiful Python, thanks Hans for adding some extra nature to the mix.

Thanks to Jenny McGrath at the door to welcome everyone and Bruce Zell on the information stand. Please forgive me if I have missed you, but be assured your efforts are thankfully received. And finally from me, Carol Laing a great big thank you to members of our very hardworking Organising Committee, Bruce Zell, Jenny McGrath, Lois Hayes, and Peter Spooner.

And a special thanks to Peter Spooner for his efforts in setting up the PA and making the projector work so we could watch the film, not always an easy job to set up and run on the day in a unfamiliar venue.

We could not have done it without your efforts, time, motor vehicles, computers and printers.

The Permaculture Cairns New Logo

You may not have noticed, but we have a new LOGO, the committee and members thought it time to do a updated version of our 2008 Logo. The Coconut tree represents the tree of life, it is such a useful plants with all parts either edible or used for building proposes. So in keeping with that we thought to grow or baby coconut into a full size tree. I hope you like it.

CAR SHARING

We have members living on the northern beaches, the southern suburbs and on the tablelands, perhaps someone would like to organise a car sharing contact network in your area.

Please contact one of our committee members if you are interested in doing this – maybe a email address or phone no to ring if you are prepared to car share would be a start.

Permaculture Principle No. 6 – Produce no waste

“A stitch in time saves nine.” “Waste not, want not.”

By valuing and making use of all the resources that are available to us, nothing goes to waste.

The icon of the worm represents one of the most effective recyclers of organic materials, consuming plant and animal ‘waste’ into valuable plant food. The proverb “a stitch in time saves nine” reminds us that timely maintenance prevents waste, while “waste not, want not” reminds us that it’s easy to be wasteful in times of abundance, but this waste can be a cause of hardship later.

Play the song about the principle from this album:



THE BENEFITS OF BEING A FINANCIAL MEMBER OF PERMACULTURE CAIRNS

Eleven Monthly meetings, with information, movies/videos and presentations from informative and interesting members and guest speakers. Plant of the month, Tool of the Month, Tip of the Month, Book of the Month, Cuppa and nibbles and networking time

Discount on most Workshop Fees organised by Permaculture Cairns

Learn more skill by attending Workshops, Permibeas, information nights and events

Learn more about Permaculture Practices and Principles by attending Workshops, Permibeas and events

Access to plants and seeds and other resources through sharing

Monthly Newsletter with local info on workshops and events and Permaculture news from around the world

Networking with people of similar interests from other organisations in the area eg. Seed Saver Groups, BioDynamic Group, Local Exchange Trading System aka LETS, Community Garden Groups, Non Government Organisations like Terrain and Northern Gulf Resource Management Group.

Receive email notices of Events/ Courses by Permaculture Cairns, other relevant businesses/organisations - not all of these notices will be in our newsletters if the news was received after the issue date.

Free access to our Library books on a wide range of Permaculture Subjects

Continue learning about Permaculture through shared knowledge and experience

Learn how to live gently on this earth – Care for the Earth, Care for People and Share you excess plants, seeds, produce and skills.

Meet and make new friends.

HAVE YOU PAID YOUR MEMBERSHIP FEES FOR 2015???????

Late news: Organic Motion Presents: ROCKET EARTHBAG COB OVEN WITH BUILT-IN TABLE July 2015 Fri 3rd to Mon 6th

(school holidays) This is a 3 in 1 workshop (intensive over 4 days) covering theory and 'hands on' practical skills learning; 'Rocket' stove fabrication, Earthbag building technique and Cob/oven building. Be part of a small team (of 8) to build a pizza oven from the ground up, using a combination of these natural building techniques! Camping, materials, take home resources and all meals provided. 'Rocket' stove technology is a very efficient heating system which uses as little as 1/5th of the wood required to heat a wood-fired pizza oven - with much less time. Learn how to work with the Earthbag building method to construct the foundation with an attached preparation table and learn the cob techniques to create the oven.

The 'rocket' system will be fabricated and installed as part of the process, so participants in this workshop will gain all of the theory and 'hands on' practical skills to DIY this at home or within their community.

LETS, Earlybird and Couples Discounts available before Friday June 12th.

Limited places available! Please visit this website link for much more information: [Organic Motion - Abundant Edible Landscapes](#)

PERMACULTURE CAIRNS WORKSHOPS

Building Resilient Communities Workshops

www.permaculturecairns.org.au



Wicking Beds and Introduction to Soldier Flies Workshop

With Len Specht

Saturday 20th July 9.30am to 12.30

In this workshop you will make a wicking bed to take home.
Learn about the Wicking Bed, its benefits, how it works and what it can do for you.

Grow food with less water and save on watering time.

Be able to go away for 3 – 4 days and not have to water.

And Len will give us an insight into the breeding of Soldier Flies which are a rich source of food for chooks and fish. They also reduce kitchen scraps very quickly, within a few days.

Registration and payment of the booking & materials fee is essential

Register at: workshops@permaculturecairns.org.au

Permaculture financial members \$25, Non Members \$30 Bartles 25+\$5

Payments may be made at Cairns Penny bank in Grafton Street or online to Permaculture Cairns bank Account: BSB 704-966 A/c No. 100009440 use your Surname and Wicking as reference.

Morning tea will be provided

Venue:- Bungalow Community Gardens, Cnr Aumuller and Spence Street, Bungalow

AND

Plan your garden from scratch with biodiversity in mind

With Jenny McGrath

27th June 9.30am to 12.30 noon

Jenny will plan the garden using Permaculture Principles and Practices so the very best outcome is achieved from your land.

Building biodiversity into the garden will help with pests management and bring wildlife into your garden.

Registration and payment of the booking & materials fee is essential

Register at: workshops@permaculturecairns.org.au

Permaculture Financial Members \$20, Non Members \$25. LETS 25 Bartles

Venue: Brinsmead. Address advised on registration and payment of fees

Morning tea will be provided

Payments may be made at Cairns Penny in Grafton Street or online to Permaculture Cairns Penny Account: BSB 704-966 A/c 100009440, use your SURNAME and PLAN as reference

A big thank you to our Sponsor, Cairns Regional Council Sustainability Grant Program for making these workshops possible.



Newsletter Plant of the Month: Brazilian spinach

Some information from the Green Harvest Web Site

BRAZILIAN SPINACH GROWING INFORMATION © Frances Michaels

BOTANICAL NAME: *Alternanthera sissoo*

COMMON NAMES: Poor Man's Spinach , Samba Lettuce, Sissoo Spinach

FAMILY: Amaranthaceae **ORIGIN:** Brazil

PLANT DESCRIPTION

Brazilian spinach is a low growing perennial leaf vegetable, which forms a neat mound clump to 30 cm high, rather than spreading in a mat. This growth habit makes it a handy plant for edging paths, especially in partial shade as it is quite shade-tolerant. The leaves are mid green, round and crinkled. The flowers are insignificant, small and white. It is suitable for subtropical and tropical areas only; it is unlikely to do well further south than Sydney. It will tolerate most soils although it prefers a moderate to rich loam, it dislikes water logging. Plant in full sun to medium shade.

USES

It is a good tasting, wet-season, green leafy vegetable, without the slimy or mucilaginous texture

PLANTING DETAILS

Recommended Planting Time: Grows easily from cuttings. Propagate during the wet season or spring in cooler areas.

Planting Depth: Cuttings 15 - 20 cm long can be planted three to four to a hole. Strip the leaves off the bottom half of the stems and bury to half their length and keep moist. When established the cuttings shoot from the roots and quickly form dense clumps. In moist climates this technique can be used to create an edible ground cover.

Spacing: Space 60 cm apart, mulch well.

NOTE FROM THE EDITOR – CAROL

Here in the tropics, this is a 'must have' plant - A fantastic perennial plant to have in the garden, it looks great, easy to grow, almost free from pests, grown in full sun or part shade, plant under the citrus to keep down the weeds, good as a border plant, and you can eat it all year round. Use in the kitchen – steamed, stir fried, in quiches, pies, soups just as you would use spinach, add a little garlic butter before serving and enjoy. (adding butter collects the soluble vitamins that may be lost).

Save money stop buying spinach and grow your own. Sometimes the leaf will change shape and flatten out, without any crinkles, this seems to happen when grown in shade and is well watered.

Contrary to what some have said this plant is NOT a declared weed (I checked the declared weeds list for Queensland). And the seeds are infertile so are not likely to escape from your garden. Well!!! Wait a bit - the plant grows easily so if you dump it in the bush it may grow, so don't!! Put unwanted plants in the GREEN BIN and they will be composted at the Portsmouth site.

Local and Regional Area Workshops and Events

Cairns Seed Savers Meeting – Clifton Beach – Sunday 21st June 10am – 1pm

Cairns Seed Savers is an informal group of individuals with a passion for saving seeds and growing fruit, vegetable and other useful plants that have been passed down through generations and are adapted to the local conditions.

WHEN: Sunday 21st June 2015

WHERE: Jo's place - 39A Clifton Rd, Clifton Beach

PHONE: Jo 40553053

WHAT TO BRING:

- Organically grown, non-hybrid seeds if you have any spare |
- A plate of food to share for lunch • Your own chair, plate and cutlery
- Your spare seedlings, cuttings, plants and produce for the Share Table

AGENDA: 10 – 11AM Meet'n'greet, general housekeeping, seed sorting and access to Seed Bank

11 – 12 Talk and demo by Michael (Jo's husband) - on how to set up a simple backyard aquaponics system.

12 – 12:30PM Enjoy a shared lunch

12:30 – 1PM Tour of Jo's very productive garden. WARNING – bee hives are kept on this property.

Everyone Welcome - See you there!

**Biodynamics FNQ Workshop- Gordonvale: Tropical Fruit Trees - Sunday 21st June, 2015,
10am to 4pm.**

At the home of Kaye Gersch - Gordonvale Free attendance.

Bring lunch to share, refreshments provided. Bring chairs and a container if you would like to take some tree paste home.

Program: This tropical fruit tree forest has been established for 6 years and Kaye will take us through, for identification and to talk of her journey with the trees. Later Maurie Franklin and Lewis O'Farrell will talk about care of tropical fruit trees, especially banana trees. Simon Harden will demonstrate making Tree paste, its purpose and we will coat a few trees.

We will have a short talk on the care of the land and trees with Biodynamic Methods.

Address: 56 Corcoran St, Gordonvale.

From Tablelands -Coming down from Gillies Hwy in house area, 60 km zone turn left at roundabout and first left into Demsey St. Follow till you see Corcoran Rd on right, turn in and follow to end of street, No 56.

Please park on roadside grass verge.

From Cairns : turn right off Bruce Hwy at Gordonvale lights, into Yungaburra /Gillies Hwy turnoff. Cross first small bridge and then at roundabout turn right and follow as above.

For any enquiries or car sharing ring Cheryl on 4095 1119 or Hilary on 0427 392 753

Michael Alba - Mareeba – Total Health Workshop - Sunday 21st June 1pm to 5pm

17 Middlemiss Street, Mareeba – For information Phone Michael or Linday 40921116 or 0429175328

An overview of natural methods including growing food organically, diet, exercise, sun, air and water therapies, developing the power of positive thinking, fasting and emotional well being.

Fee: 30 – Bookings not required - Afternoon tea provided.

TABLELAND LETS - JUNE CALENDAR- Relocalising All of Far North Queensland

TARZALI – Wednesday 3rd 6.30 - 8.30pm Trade Night and shared meal at Gavin's, 12 Hosie Road, Tarzali. Bring dinner to share - come and enjoy the longest running LETS event on the Tablelands! Gavin has an abundance of ginger if you want to buy some at his trade please call him by Sunday 31st. Event host: Gavin - 40965929

KOAH & KURANDA – Saturday 6th 10 - 12 noon, 8 Barron Street, Koah. Blake and Toddi hosting again, this time at Koah. Car Pooling advised for those who are keen to make the trip from the Tablelands or Kuranda. EVENT HOST: Blake and Toddi - 0422068995

CASSOWARY COAST - Saturday 6th 10am - 3pm, 2015 ECO Expo, Warinna Lakes, off Charles St, Innisfail. Promoting all things Sustainable - Low Food Miles, Recycling, Low Carbon Emissions, Carbon Sequestration, and Community - Education & Well being including the launch and promotion of Taste Paradise... as part of Qld Day celebrations. Entertainment by The Formidable Vegetable Sound System.(Non LETS event. Sponsored by Tableland LETS).
EVENT HOST: Bernie - 0403523244

CASSOWARY COAST - Sunday June 7th 10am - 2pm ECO Picnic (Non LETS event) State College Campus, Innisfail. Celebrating the Johnstone River Community Gardens 5th birthday.
Featuring a Melon Basket Weaving workshop, Garden Tour and children's activities with a Garden Harvest Lunch at noon. EVENT HOST: Bernie - 0403523244

MALANDA – Saturday 13th 6-9pm Trade Night at Katrin's place, opposite the Malanda Caravan Park. Bring something to trade and a plate to share for dinner. This is a child friendly event and kids can make use of the huge toy room. Event Host: Katrin - 40966755

EVERY 3RD THURSDAY 8 - 11am Orientation & Malanda Community Garden Gathering. Want to learn more about the proposed plan? Want to have access to a space to grow? Would like to donate some valuable time & be a part of a valuable community enterprise? Bookings currently essential. Contact Maria 0406971567 to arrange a date for orientation & obtain address details. This is a Malanda Community Garden event, everyone is welcome to participate.

RAVENSHOE – Saturday 20th 12 - 2pm KIDS FUN DAY and Trade afternoon at Youth Shed, Ravenshoe Community Centre, 3 Bolton Street. Following Community Gardens gathering - come and check it out. Get your kids involved in LETS. Get them to gather up clothes and toys they have grown out of bring them along, help them to set up a stall so they too can earn Bartles. Bring a plate for lunch to share. Event host: Kathy - 40977864

CASSOWARY COAST Sunday June 21st 11am-3pm Trade & Social Gathering - Johnstone River Community Gardens. Bring a plate to share, something to cook on the BBQ if you wish, your own plate and eating utensils. Lunch will be at 12 noon. Tea/Coffee by gold coin donation. A child-friendly venue. Car pooling/collection serviced encouraged from the Tablelands and Cairns! Weather permitting - Event Host: Suari – 0403115261

YUNGABURRA – Saturday 27th 12 - 2pm Trade at that retro cafe, Shop 2/20 Eacham Rd (in between Miss Megs and My Habitat). Cafe drinks from the blackboard are available for 100% Bartles, bring \$ for lunch, cakes or drinks from the display fridge, a table or blanket to display your wares. Children most welcome. This event is directly after the Yungaburra Markets. Event host: Melitta - 40952340.

I have included all of June on purpose so you will know for next month. Carol

JULY HAPPENINGS:-

Cob building course – “Grow your own home”

Course begins Saturday 11th July and continues until Sunday 19th July

A cob-building workshop at Bundarra Retreat, Kuranda.

We will cover many aspects of cob construction and various other forms of earth building from foundations, walls, roofing, natural plasters and finishes.

Camping is available, all meals and snacks included \$880,

and for locals who don't require full board and keep \$700, 10% early bird registration.

A one day course introduction to cob will be held on 11th July at a cost of \$150 which includes lunch.

Please contact Christian Cluver 0404 868 366 christiancluver@gmail.com

INTERESTED IN GROWING GOURMET MUSHROOMS – CONTACT Kym or Laurent at Jourama Farms, situated between Townsville and Ingham. They produce organic spawn, kits ready to grow mushrooms in the garden, Oyster Mushrooms in pink, yellow, grey, white and Shitake, Piopino, Wood ear and Milky mushrooms in summer and more. Kits available. Email: contact@jouramafarms.com
<http://www.jouramafarms.com/>

NEWS ITEMS FROM AROUND THE WORLD

June 4, 2015 2.14pm AEST – from The Conversation

[War on banking's rotten culture must include regulators](#)

At conferences in Sydney last week, the heads of ASIC (Greg Medcraft) and APRA (Wayne Byres) [agreed on a few things](#): banking culture is rotten; culture is “hard” to deal with; and regulators are basically at a loss on what to do about it. Medcraft said:

“When culture is rotten it often is ordinary Australians who lose their money. And that is my point – markets might recover but often people do not. So that is why we need to clean up culture because people suffer. And people are sick of it. They want to have trust and confidence in the institutions they are dealing with.”

Medcraft wants to be able to [criminally charge banks](#) and their directors when company culture has allowed for staff misconduct.

Medcraft’s outrage disguises the fact that Australia’s regulators may have had something to do with fostering a “rotten” banking culture. For example, when the Four Pillars were fined some A\$1.7 billion and censured by the New Zealand High Court for [Tax Avoidance](#) neither regulator censured the boards or senior management of four banks, or even commented at the time on the cultural messages such behaviour would inevitably reinforce.

To give ASIC credit, in another speech last week Commissioner Greg Tanzer outlined a [very long laundry list of things](#) ASIC is now going to look at relating to culture, including: reward structures; whistleblowing policies; conflicts of interest; complaints handling; and corporate governance.

The regulators might wish to look the latest [research](#) showing the avoidance culture behind the risk taking by Australian bankers. Or the experience overseas showing the difficulties of [actually changing](#) banking culture. But the problem is wider than individual banks and includes the culture of the banking and regulatory system itself.

A system beset by groupthink

While Australian regulators bemoan the industry’s culture problem, the Irish parliament is holding [yet another inquiry](#) into the tragedy that beset the Irish banking system before the global financial crisis. Irish finance leaders have fronted the inquiry, singing from the same songbook. From bankers, regulators, auditors, the media, to academics, commentators and managers of construction companies, (almost) all were repeating the same thing – ‘No one - but no one - saw it coming’.

There were a few exceptions who had been off-key before the crisis, including Professor [Morgan Kelly](#) and a brave regulator, Con Horan, who had warned of the impending calamity but was told [not to rock the boat](#). Aside from those notable exceptions, everyone else appeared to be on same page.

In behavioural economics, such “concurrence” across a group is called groupthink. Everyone in Ireland, or at least those in charge of the financial system, believed the economy would keep growing forever. And why not, as Ireland was in the midst of a 25-year boom - sound familiar?

Groupthink (or more properly in this case “systemstink” because the whole system was deluded) is unhealthy because, not only do people start to think alike, it is only a short step to believing people who are singing a different tune should be excluded and thrown out of the chorus. Dissent can be destructive, but the role of the Devil’s Advocate is well-understood to be valuable, drawing out important questions people would rather not answer.

But it’s not only in Ireland that people are afraid of rocking the boat. In [Senate hearings](#) this week into high credit card interest charges, RBA Assistant Governor Malcolm Edey admitted the Reserve and Treasury were aware of the problem, but said it was not up to them to question Australia’s banks on card rates. He recommended ASIC or APRA be the people to ask, if one was really worried. Since the RBA, APRA, ASIC and the Treasury are the four members of the Council of Financial Regulators (CFR), one would have thought that [one of their regular meetings](#) would have been an ideal opportunity to bring this issue up – but no one did.

It is the primary role of Australia's banking regulators to promote systemic stability. But what if the whole system, including banking regulation, is deluded (as happened in Ireland)?

Seeking solutions

So how could a Devil's Advocate be introduced into the regulatory process? The recent [Murray Inquiry into the Financial System](#) made one recommendation that could help. The inquiry recommended the establishment of a new Financial Regulator Assessment Board (FRAB), which would be asked to "assess how regulators have used the powers and discretions available to them".

The Murray inquiry envisaged that this new board would consist of knowledgeable experts, crucially not tied to regulators, with a diverse membership that would "act as a safeguard against the FRAB being unduly influenced by the views of one particular group or industry sector". The Inquiry also recommended that FRAB's assessments of regulators should be made public. The creation of the FRAB is awaiting the government's response to the Murray proposals.

Experts, such as Dr Andy Schmulow, [suggest](#) the FRAB proposal may however be dead on arrival, due to push-back from regulators. That is a pity, as regulators should welcome the creation of such an independent body, even though they know it may cause them some uncomfortable moments along the way. Constructive questioning of perceived wisdom will enhance rather than reduce systemic stability, which is after all the goal of banking regulation.

NEWSRELEASE - CSIRO

5 JUNE 2015

[Seashells To Deliver New Drugs And Vaccines](#)

Mimicking nature, Australian scientists have developed a protective seashell-inspired capsule to preserve the active biological ingredients needed to create promising new drugs. Published in the journal *Nature Communications*, the development overcomes a critical challenge in biomedicine by ensuring important proteins remain effective in hostile environments.

The new shell developed by CSIRO, The University of Adelaide and the Australian Synchrotron, could hold the key to cost-effectively preserving and extending the shelf-life of vaccines in extreme temperatures without refrigeration. This could significantly benefit healthcare in developing countries where life-saving vaccines often need to be transported over long distances to reach everyone who needs them.

"Like a house is made of bricks, living organisms are made up of proteins which play a critical role in the body," CSIRO lead researcher Dr Kang Liang said. "But unlike bricks, proteins are fragile and their function alters or perishes when exposed to heat, pressure and pollutants.

"Inspired by a sea urchin's outer shell, which supports and protects its fragile body, we've come up with a porous shell that grows around important proteins such as enzymes to protect them on the inside. "Our shell offers a low-cost solution to protecting proteins for making and enhancing drugs and other products where sensitivity has long been an issue." The shell is made of an extremely porous material called metal organic frameworks (MOFs) that has a flexible and customisable cage-like structure.

"The shell's tiny cage holes are similar to a sea creature's pores and are designed to capture, trap or release specific biomolecules," Dr Liang said. It also paves the way to making new and improved consumer products. For example, shell-encapsulated enzymes in laundry washing powder would perform better, resulting in cleaner, softer and more fragrant clothing in less time.

CSIRO research team leader, Dr Paolo Falcaro said they are now seeking industry partners to develop the technology for specific applications including pharmaceuticals, manufacturing, chemical and food processing, water decontamination and screening for genetic disease.

"We are currently investigating important biomolecules including DNA, antibodies and those used in vaccines," Dr Falcaro said. "Based on our laboratory trials, the shell could protect a vaccine vial for only a few dollars and at a commercial scale we would work to make it even cheaper. "This cost is insignificant when a vaccine can cost up to hundreds of dollars per dose."

CSIRO is developing a range of technologies for making and using MOFs that span capturing carbon dioxide from the atmosphere, separating and storing gases, and decontaminating water and soils. These technologies offer industry significant productivity and environmental benefits.

Later this year, Dr Liang will join fellow CSIRO colleague Dr Paul Berkman and 11 other young Australians who were selected to attend the 65th Lindau Nobel Laureate Meeting - the Oscars equivalent of the science world.

Companies interested in developing the shell technology should contact enquiries@csiro.au. The full paper can be accessed at [Nature Communications](#).

[The Apex of Industrialism: Manufactured Fake Shit](#)

(A photo of an Ammonia plant is missing from this article)

by [Allan Stromfeldt Christensen](#), originally published by [From Filmers to Farmers](#)

The Dr. Pooper Papers, Issue #2:

While it would be nice to think that in times before the industrial era that farming was a wholly benevolent practice, the truth of the matter is that similar to today, agriculture actually began with annual monocultures.

Nonetheless, there did emerge over the millennia various farming methods and practices of which were adapted to the unique and sometimes changing conditions of their particular places. Likewise, many different practices have been employed by many different cultures in order to maintain fertility of the land.

Those people of the Far East, as described by F.H. King in his (1911) book [Farmers of Forty Centuries: Organic Farming in China, Korea and Japan](#), meticulously made efforts to return all organic materials back to the soil: food scraps, animal manures, straw, as well as night soil (human waste). As King put it,

when I asked my interpreter if it was not the custom of the city during the winter months to discharge its night soil into the sea, as a quicker and cheaper mode of disposal, his reply came quick and sharp, "No, that would be waste. We throw nothing away. It is worth too much money." In such public places as railway stations provision is made for saving, not for wasting, and even along the country roads screens invite the traveler to stop, primarily for profit to the owner, more than for personal convenience.

Similar-minded practices include growing certain crops with the specific intent of plowing them back into the ground to reinvigorate the land with organic materials, while others, to varying degrees, have drawn upon outside sources to supplement fertility.

The most enormous and ancient of these off-farm additions has been the annual flooding of the Nile River, carrying along with it nutrients emanating from far-off mountains and the Blue Nile in Ethiopia. These nutrients ended up adding to flood plains that farmers planted into as far away as Egypt, until, that is, the Aswan Dam came along and ruined that "free lunch."

Somewhat differently, many cultures have purposefully gone out of their way to collect various nearby materials to add to the fertility of the land. When WWOOFing in New Zealand 10 years ago I helped a friend collect huge wads of seaweed from the beach to be applied and added to the fertility of his garden (a

practice partaken by those of the British Isles for centuries now), and I even WWOOFed with one couple who, believe it or not, claimed to collect roadkill to add to their compost piles.

But with a demographic shifting from rural areas to enlarging cities some 20 or so years ago due to various facets of the Industrial Revolution, a growing amount of mouths in cities needed to be fed by a shrinking amount of hands on the land. And with farming turning into more of a profit-seeking venture by absentee landlords than a way of life for those closer to the land, pressures were being put on the land for maximum extraction. In other words, the highest levels of efficiency were sought after, which has generally meant cutbacks on the costliest "input" – human labour.

Monumental changes were thus spurred to take place via the addition of industrial off-farm "inputs" – solidified bird excrement (guano) being the first – which enabled farming to transform away from the practice of nutrient recycling into that of nutrient importation, and which had the side-effect of making consumers out of farmers.

For it was over in South America that massive 10-50 metre deep deposits of guano existed on the Chincha islands off the coast of Peru, the result of a lack of rainfall which would have leached the nutrients out into the sea. As a result of the demands put upon the land by the new and unsavoury farming mentality, commercial shipments of this guano then began to be exported to the United States, the United Kingdom, and other countries in the early 1840s, peaking at a rate of nearly 600,000 tonnes per year in the late 1860s.

It is worthwhile to note however that while some farmers were eager to pay (and rather expensively) for this off-farm fertility, others, who had a responsible ethic leaning towards self-sufficiency, eschewed the guano and saw nothing wrong with the continued use of crop rotations as well as their labour intensive on-farm salvaging of manures from their own barns and pastures.

But regardless of those who made do without, what had been a resource used by Peruvians for thousands of years became plundered, exported, and exhausted in a mere six decades.

Furthermore, and with an uncanny resemblance to the atmosphere surrounding the present-day situation with oil, events quickly turned into a state of flux. As Vaclav Smil described it in his book [Enriching the Earth: Fritz Haber, Carl Bosch, and the Transformation of World Food Production](#), there similarly existed

rising prices in an oligopolistic market, fears of resource exhaustion, attempts at price controls, the U.S. government getting involved in schemes of armed intervention, [and] American entrepreneurs... rushing to explore and exploit new deposits on tiny islands and reefs in the Caribbean and in the Pacific.

As the guano supplies inevitably began to dwindle, various other minor sources of industrial-scale fertilizer began to be utilized. However, all of these couldn't come near to meeting the growing demand that agriculture was increasingly becoming reliant on due to the new land practices, and incessantly growing urban populations.

It was in 1909 then that the German scientist Fritz Haber appreciably pulled off what William Crookes had been calling for a decade earlier (mentioned in [my previous post](#)), essentially the creation of fertility in the laboratory. With the process later adapted to a larger scale via the assistance of the BASF chemist Carl Bosch, what had been devised was a process whereby atmospheric nitrogen was combined with hydrogen derived from fossil fuels to create ammonia (NH₃), roughly 33,000 cubic feet of natural gas (today's predominant feedstock) currently required to create one ton of fertilizer.

To this day the ammonia provided by the Haber-Bosch method accounts for 99 percent of all synthetic nitrogen fertilizers added to our soils every year – some 150 million tons, equal to that of all naturally derived sources – which means that roughly 40 percent of humanity (about 3 billion people) owe their continued survival to the process (and which is why some call it the most important invention of the twentieth century). Along with mined phosphorous and potassium, these products make up the bags of petrochemical NPK fertilizer that one sees on store shelves with the three digit combinations (10-1-5 for

instance) and which end up on our suburban lawns and golf courses, and in a greater scale, on our crop fields under the guise of "plant food."

However, just as there are limits to growth, limits to oil extraction levels, and so forth, there are limits to petrochemical fertilizers. A time will come when, much as occurred with guano, supplies will reach their peaks and other means of fertilizing the land will be required. There is, however, no next bonanza of easily sourced fertilizer supplements to tap into.

In other words, if the land is to be expected to bear food, then ecological means of maintaining its fertility will be required. This includes, but is not restricted to, crop rotations, the application of composted food scraps, and, very un-21st century-like, the application of livestock manures and human wastes to the land.

Since animals in the industrial agricultural system are raised on CAFOs (concentrated animal feedlot operations), this means that their manures are too concentrated in individual locations to have any economically viable chance of being spread across the land far and wide. This implies that small mixed farms will have to become the norm, where manures will generally only need to fall a few feet before they reach their required end-point.

As if that weren't daunting enough of a transition, the return of nutrients to the land via human wastes is a whole other issue. With the current corralling of people into ever more crowded and packed urban centres, it might be said that our modern cities are the human equivalent of CAFOs. Nonetheless, it would be nice if the question was simply: How do we get all those human wastes to the land? But that's far from the case, particularly when it's not only hard enough to broach the topic of industrial collapse amongst polite company, but when talk of human feces is generally taboo.

Whatever then can we do?

Well, I hate to say it, but could it be that the dark arts of advertising may come to our rescue? Back in 1928, the nephew of Sigmund Freud, Edward Bernays, published his controversial book [Propaganda](#), his treatise on "the scientific technique of shaping and manipulating public opinion." In it, Bernays recounted that

in the manufacture of American silk, markets are developed by going to Paris for inspiration. Paris can give American silk a stamp of authority which will aid it to achieve definite position in the United States.

Did it work? You betcha!

The result of this... was that prominent department stores in New York, Chicago, and other cities... tried to mold the public taste in conformity with the idea which had the approval of Paris. The silks... gained a place in public esteem.

One can't help then but wonder – could Paris do for American shit what it did for American silk?

Regardless of the chances of that happening, we need to begin to realize the importance of returning human wastes to the land. And for that to happen, a reimagining of the saying "money makes the world go round" might be a good place to start.

As explained in a [previous post of mine](#), money is a proxy for energy. Therefore, it might be closer to the truth to say then that it is actually energy that makes the world go round.

However, as we are not simply energetic beings but rather corporal beings of a biological nature, it can perhaps be said then that not even energy makes the world go round. For us humans who require sustenance – not simply energy – to feed ourselves, to grow, etc.; and since the maintenance of the land – and thus manure – is required to allow for the conditions for that possibility, it might be more useful if we got down to the nitty gritty of it all and called a spade a spade. And by that I mean one thing and one thing only:

Shit makes the world go round. -----

[Article from www.saveourmarinelife.org.au](http://www.saveourmarinelife.org.au)

Parliament House in Canberra was 'buzzing' with our Daniel Pauly tour last week, in the words of one senior government MP. **In just two days, more than 80 Members of Parliament were briefed by world-renowned fisheries scientist Dr Pauly on the true state of Australia's fisheries** – both through our well-attended Breakfast Briefing, and through back-to-back individual meetings.

This is entirely thanks to our supporters around the country whose voices were extremely powerful in encouraging MPs to attend. As a result of the many thousands of emails sent, every single federal MP was aware of Dr Pauly's visit, his important message about the risk to Australia's oceans, and the strong interest in their local electorate.

Australia is at a crossroads and Dr Pauly's message to Australia was clear: the health of our oceans will rapidly decline if supertrawlers stay and our sanctuaries are lost. You can [watch Dr Pauly's TEDx talk at Sydney Opera House last week here.](#)

Following our whirlwind Parliament tour, Dr Pauly and I headed to Sydney for the final screening of the hugely popular Sea & Me documentary, which has toured 15 Australian cities and towns this year, celebrating our sanctuaries and ocean caretakers. **If you missed [the Sea & Me, you can watch it here](#)** or, if you're interested in organising a local community screening, just reply to this email to let us know.

Tens of thousands of you have already called on your MPs to retain, increase and implement our sanctuaries, which are currently suspended and under review.

Next, we will be delivering more than 30,000 signatures to the federal Parliament, calling for foreign freezer factory trawlers to be permanently banned from our waters. The 'Geelong Star', recently allowed into Australia, has already killed 8 dolphins and four seals on just two fishing trips so far. It's time to stop it once and for all.

Michelle and the team. Michelle Grady

2 June 2015, 6.07am AEST – from The Conversation

[Big oil's offshore scramble is risky business all round](#)

Big oil companies are moving to exploit new, high-risk resources. This was most recently highlighted by [concerns](#) around BP's exploration drilling in Australia's Great Australian Bight and Shell's plans to drill wells in the Arctic. But what's driving the trend?

Environmentalists monitoring the energy markets will have noted three important developments in recent months.

First, the plunge in oil prices has triggered a string of bankruptcies, debt defaults and protectionist measures to rescue companies nearing collapse. The [Financial Times](#) reports that almost two-dozen companies are under stress and more than US\$100 billion of spending on new projects has been "slowed, postponed or axed."

Second, oil companies – including those who previously [ploughed funds into climate denial](#) – have [sought to join](#) the climate debate ahead of the [Paris Climate Summit](#) in December.

This follows shareholder resolutions from [BP](#) and [Shell](#) requiring greater transparency about the risks that climate change poses to their activities and the adoption by [Exxon Mobil](#) of an internal carbon price.

Finally, despite evidence that overall industry output will curb in the coming years, major players like OPEC have sought to increase their [market share](#) by maintaining production at low prices. Similarly, while energy

majors have reduced capital spending ([including a 50% cut in investment in Australia](#)), many of those same players are exploring for oil in high-risk and environmentally sensitive areas.

While aspects of this story may appear inconsistent, I contend there is actually a [logical thread](#) – major players are responding to market conditions, securing their investments and positioning themselves ahead of competitors in order to expand their market share.

Energy companies may [claim](#) to be “leading the way” on environmental protection but they are venturing in to high-risk ecosystems to unlock resources which [must remain stranded](#) if we are to limit global warming to 2C.

Read the rest at http://theconversation.com/big-oils-offshore-scramble-is-risky-business-all-round-42479?utm_medium=email&utm_campaign=Latest+from+The+Conversation+for+2+June+2015+-+2897&utm_content=Latest+from+The+Conversation+for+2+June+2015+-+2897+CID_3a2caf83dc2cc5f74a58b1e7a74a0fa4&utm_source=campaign_monitor&utm_term=Big%20oils%20offshore%20scramble%20is%20risky%20business%20all%20round

[Or subscribe to the newsletter](#)

CAR COMPONENT MAKER CHANGES LANES TO SOLAR FUTURE

CSIRO's solar technology has been exported to Japan in a move that further demonstrates the viability of solar as an international trade industry for Australia.

Mitsubishi Hitachi Power Systems (MHPS), which received funding from the Japanese Ministry of the Environment to "develop and verify technologies for enhancing measures to reduce carbon dioxide emissions", will establish a field of 150 heliostats in Yokohama to run research projects.

The project is also a welcome boost to the car industry, with the CSIRO-designed heliostats being constructed by a South Australian manufacturing company actively coping with the downturn in the automotive industry.

Minister for Industry and Science Ian Macfarlane, Dr Alex Wonhas CSIRO Executive Director Energy and Resources and Darrin Spinks Executive Director Heliostat SA inspect the Heliostat SA plant in Adelaide.

Heliostat SA was created with the support of four South Australian companies: Precision Components, a company heavily involved in the car industry; The University of South Australia; May Brothers and Enersalt.

It is the second international deployment of CSIRO's solar thermal technology, following on from a similar project in Cyprus.

CSIRO's Energy and Resources Executive Director Dr Alex Wonhas said the two projects were a strong vote of confidence for the science agency's solar capabilities.

"These projects are the fruits of more than a decade of solar thermal research emanating from our energy centre in Newcastle and demonstrate the growing worldwide appetite for concentrated solar power," Dr Wonhas said.

"To have CSIRO's heliostats selected by MHPS, a global leader in energy, proves that our technology is up there with the best in the world. Our successful collaboration with Heliostat SA also shows the benefits of science working closely with industry to create value for the Australian economy."

Minister for Industry and Science Ian Macfarlane today visited the plant operated by Heliostat SA at Beverley, in Adelaide's western suburbs.

The Australian Government provided \$1 million of matched funding from its Automotive Diversification Programme to Precision Components which enabled the car manufacturer to diversify into renewable energy.

Solar thermal tower technology uses a field of mirrors whose angle is under computer control (heliostats), each of which rotates accurately to reflect and concentrate sunlight onto a receiver on top of a tower.

In this application the concentrated sunlight is used to create superheated steam, which can then be used to drive a turbine for generating electricity.

Energy can be stored cheaply as heat in solar thermal systems, giving this technology great potential for medium to large scale power, even when the sun isn't shining.

The CSIRO heliostat design is unique. It is smaller than conventional heliostats, and uses an advanced control system to get high performance from a relatively inexpensive design.

For more information on CSIRO's solar thermal capabilities, visit www.csiro.au/en/Research/EF/Areas/Solar/Solar-thermal

Earthen Floors: Why, How, and Where

The following is only a small part of this article so for the full story go to be to the newsletter

<http://www.resilience.org/stories/2015-06-01/earthen-floors-why-how-and-where>

by [Ashley Lubyk](#), originally published by [Verge Permaculture](#) | JUN 1, 2015

Guest Author's Note: *My name is Ashley Lubyk. I've been running [Dirt Craft Natural Building](#) for the last five years, and have had the great pleasure to work with Verge in many capacities, including guest teaching at numerous PDC's, and even taking my first PDC with them 4 years ago. I'm pleased to have the opportunity to share some of my experiences from the world of natural building here today.*

How to Make An Earthen Floor

Earthen floors are a simple combination of clay, sand, straw, and sometimes manure. Typically the ratios are about 15-20% clay and 80-85% sand. Straw is thrown in to provide tensile strength and to reduce cracking. Manure can help with workability, but is not essential. With each new clay we spend many hours evaluating and testing recipes to ensure that we get a good, strong mix.

Clays vary from place to place, ranging from browns and yellows to reds and greens. Most often it is the colour of the clay that determines the colour of the floor. Of course natural pigments can be added to alter the colour, but this will always require some experimentation. In all cases, oiling process tends to darken the final colour, so creating a very light-coloured earthen floor can be difficult. It is also possible to add what is essentially a clay paint to the final surface to impart the desired colour (this reduces the amount of pigment needed). This may be brushed or troweled onto the surface. Each creates a different and unique texture effect.

Earthen floors are usually laid in wet and levelled using a combination of screed guides and screeds or, in some situations, a laser level. Once the desired thickness is attained, and the tiles, rocks, etc are laid in, the final surface is trowelled to a smooth finish. A day or two later the semi-firm surface is further 'compressed' to further unify the surface. Once compressed the floor is left to dry; this can take a week or more (fans or dehumidifiers or open windows aid the drying).



Once dry, any cracks or pockets can be filled with more floor material and then the clay paint can be added to create a more varied surface or to add a different colour. We'll often 'skip trowel' this layer on to create a slightly mottled, varied surface that is smoother and more polished floor. This treatment is then allowed to dry. Once completely dry, the final surface is finished with 4 to 6 coats of oil, often hemp or linseed, then topped with a combination of soft waxes. Once dry this final layer can then be buffed to give it a wonderful sheen

Where They Work

Earthen floors can be installed anywhere a concrete slab or tile floor would be, so long as a solid base is provided. The success of an earthen floor relies on substrate conditions and this will ultimately guide the preparation of the subfloor. Ground moisture (including high water levels) and extreme cold must be factored in to create a floor that remains dry and comfortable, avoiding the use of excess energy during the heating season.

[LOOK WHAT IS HAPPENING IN THE USA](#)

Article from <http://www.resilience.org>

[EPA Study: Fracking Puts Drinking Water Supplies at Risk of Contamination](#)

by [Sharon Kelly](#), originally published by [DeSmogBlog](#) | JUN 5, 2015

The Environmental Protection Agency has [released](#) its long awaited draft assessment of the impacts that fracking has on the nation's drinking water supplies — confirming that the process does indeed contaminate water.

“From our assessment, we conclude there are above and below ground mechanisms by which hydraulic fracturing activities have the potential to impact drinking water resources,” the EPA wrote.

The impacts take a variety of forms, the EPA wrote, listing the effects of water consumption especially in arid regions or during droughts, chemical and wastewater spills, “fracturing directly into underground drinking water resources,” the movement of liquids and gasses below ground “and inadequate treatment and discharge of wastewater.”

The agency wrote that it had documented “specific instances” where each of those problems had in fact happened and some cases where multiple problems combined to pollute water supplies.

Environmental groups welcomed the agency's central conclusion as vindication.

“Today EPA confirmed what communities living with fracking have known for years,” said Earthworks policy director Lauren Pagel. “Fracking pollutes drinking water.”

But they also cautioned that the EPA's assessment seemed likely to understate the risks associated with fracking, in part because it relied heavily on data that was self-reported by the drilling industry.

So, just how badly has the process contaminated America's water already, and how big are the risks from more fracking? The EPA can't say, the draft report concluded.

“We did not find evidence that these mechanisms have led to widespread, systemic impacts on drinking water resources in the United States,” the EPA wrote.

But that's not necessarily because the impacts are in fact rare, the EPA added, but because of the difficulties involved in definitively proving contamination occurred in every case.

“This finding could reflect a rarity of effects on drinking water resources, but may also be due to other limiting factors. These factors include: insufficient pre- and post-fracturing data on the quality of drinking water resources; the paucity of long-term systematic studies; the presence of other sources of contamination precluding a definitive link between hydraulic fracturing activities and an impact; and the inaccessibility of some information on hydraulic fracturing activities and potential impacts,” the agency wrote.

Fracking Supporters Try to Spin Study To Their Advantage

Drilling supporters seized on the EPA's failure to report evidence of “widespread, systemic” pollution, asserting that it shows that fracking is safe.

“After five years of study, the EPA learned exactly what the states, industry and even some of the more competent bureaucrats in the Obama administration have known for some time — hydraulic fracturing is not a threat to drinking water,” Rep. Rob Bishop (R-Utah), chairman of the House Natural Resources Committee, said in a statement, according to [The Hill](#).

But the EPA's study itemizes numerous instances where things have in fact gone wrong, describing spills, mishandling of wastewater and the ability of contaminants to travel underground via oil and gas well casings or other cracks and fractures and reach aquifers.

DeSmog has [previously reported](#) that EPA was forced to slash plans to test the levels of contamination both before and after a well was fracked because the oil and gas industry failed to make any wells available for testing and pressured EPA to narrow its plans.

“The EPA found disturbing evidence of fracking polluting our water despite not looking very hard,” Kassie Siegel of the Center for Biological Diversity said in a statement. “This study was hobbled by the oil and gas industry’s refusal to provide key data.”

Thomas Burke, deputy assistant administrator of the EPA’s office of research and development, downplayed the degree of risk, focusing on the percentage of wells where water was proved to have been contaminated. “In fact, the number of documented impacts to drinking water is relatively low when compared to the number of fractured wells,” he [told](#) The Wall Street Journal.

But while the percentages are small, the raw numbers are quite large.

“Between 2000 and 2013, approximately 9.4 million people lived within one mile of a hydraulically fractured well,” the EPA's study concluded, adding that nearly 7,000 municipal or public water supplies are also close to fracked wells. “These drinking water sources served more than 8.6 million people year-round in 2013,” the agency added.

With that many people living nearby, even a small percentage rate can translate into large impacts.

“Industry data and independent studies tell us that one to six percent of unconventional fracked wells fail immediately, meaning tens of thousands of failed wells litter our country,” Earthworks' Pagel said. “That’s why industry didn’t cooperate, they know fracking is an inherently risky, dirty process that doesn’t bear close, independent examination.”

Study Scaled Down Repeatedly: EPA Whistleblower

Weston Wilson, who worked for the agency for over 37 years, and who sought whistle-blower protections status after reporting a string of conflicts of interest and major flaws in the EPA's last major investigation into fracking in 2004,

described to DeSmog how the EPA's current study had been narrowed repeatedly. The study left out key parts of the full process involved in extracting oil and gas from fracked wells, like wastewater pit failures and engineering practices, he noted. And many locations EPA hoped to study early on were dropped along the way.

The EPA's study also failed to cover another major risk associated with fracking, Wilson pointed out.

“EPA's science advisory board recommended that the air emissions of unconventional drilling also be investigated,” Wilson noted. “EPA said it would investigate air but retreated from that position in 2011.”

EPA's draft report will next be circulated for peer-review and for public comment, meaning that the debate over the agency's specific findings is only beginning — as is the debate about passing federal regulations for the industry.

“Today’s announcement will be spun by industry lobbyists as a clean bill of health for oil and gas developers around the country,” Rep. Raúl Grijalva (D-Arizona), the ranking Democrat on the House Natural Resources Committee, said in a statement according to [The Hill](#). “Nothing could be further from the truth, as EPA’s own findings have shown. Irresponsible oil and gas development puts water quality at risk for millions of Americans, and no amount of spin can change that.”

Others in Congress agreed.

“When it comes to the water we drink, every instance of contamination must be considered serious,” wrote Reps. Diana DeGette (D-Colorado), Frank Pallone, Jr. (D-New Jersey) and Paul Tonko (D-New York). “It is also important to note that this study relied on voluntary reporting, which affects both the quality and scope of the data available. This is an unfortunate consequence of the lack of federal regulation of hydraulic fracturing.”

Permaculture’s Next Big Step: An Emerging Earth-Wide Network

From PC Britain

Permaculture now encompasses so much more than the ecological and farming foundations it came from.

It is evolving! As a design system for sustainable living, permaculture has the scope to address so many topics at so many scales.

At the International Permaculture Convergence in Cuba, 2013, it was agreed to form an international permaculture network.

This is Permaculture’s Next Big Step. Now we are starting a global consultation to develop a permaculture strategy for the future.

We're looking for key people to help lead this consultative process and we'd like you to join us.

We are creating a framework where:

- **key permaculture organisations and networks from every country are involved in shaping the future,**
- **all ‘permies’ (anyone doing permaculture) are given opportunity to feed into the process.**

This group does not have the remit to make decisions, nor to create a strategy on others' behalf.

It's an earth-wide network; everyone should feel an ownership of it. You will be invited to take part in a survey in mid-2015.

The aim is that by the next [IPC in September 2015](#) [in London, UK], we will have identified, from this consultation and discussion, the key functions that an international permaculture network will perform and have embedded these within a strategy for making them happen effectively.

Agreement on the functions and strategy will happen at the next IPC. Ideally, from this process we will also have key teams in place to take forward each of these functions in the following months and years (that's stage 2).

*Posted by [Jo Sharp](#)
| June 8, 2015*

International Permaculture Convergence, London 2015

Conference – 8-9 september 2015 – The Light, London

Designing the World We Want - two days packed with presentations, workshops, academic papers, exhibitions, music, and art.

Convergence – 10-16 September 2015 – Gilwell Park, London

Designing the network we want - for people from around the world using permaculture in their everyday lives and communities.

IPCUK will bring together leading experts and practitioners from around the world.

We have everything we need to create a sustainable world and future. Together we will create a vision of a near future society that is caring, sustainable and fair, and explore how we can collectively design strategies and pathways to make it happen.

[Edge events](#), throughout the UK and Europe.
From tours and courses, to talks and more.

What is an Edge Event?

Around the edge of the core IPCUK conference (8 - 9 September, 2015) and convergence (10 - 16 September) will be courses, workshops, lectures, visits and tours, volunteering (like WWOOFing), Permablitzs and lots more.

We will have some of the world's most experienced permaculture practitioners and inspirational designers and project leaders.

“Thanks so much...for supporting the Edge Events. It helps some of us travelling from afar to make the most of our trip and airfare and possibly cover some of our cost to come to IPC and most importantly, share some of our gifts to an audience on the other side of the globe. - [Robin Clayfield](#), facilitator, trainer, author, and musician, Australia.”

The Edge Events working group have some specific ideas, but welcome expressions of interest to have other events. We are particularly keen to have some design courses before IPCUK and tours after IPCUK. Possible Edge Events include:

- **International Permaculture Design Courses**, with teachers from Britain and internationally. There are many courses happening over the summer in the UK and Europe, and we are happy to include these as IPCUK Edge Events. There should be a genuine connection – trainers attending IPCUK and ideally a mix of international and home tutors.
- **Teacher training/ teacher sharing**, again with UK and international trainers.
- **Tours after the IPC**. Would need to start the day after the IPC and last between 2-3 days.
- **Longer tours**
- **Volunteer placements and stays at permaculture projects**
- **Permablitzs and other place-based community activity**
- **Lectures**
- **Courses, workshops and master-classes ranging from ½ day to a week.**
- **Art / fashion shows**
- **Music / comedy / entertainment**

[Go to the web site for more info - https://www.ipcuk.events/](https://www.ipcuk.events/)

Please note Memberships fees are due and payable on 1st January 2015

Memberships form may be completed online on our web site and emailed to us from there. Our Bank account details are on the membership form so you can pay online.

Permaculture Cairns

Membership Form 2015



One year's membership fee - 1 Jan - 31 Dec:

Household membership \$30 Renewing Member

Individual membership \$20 New Member

Name(s) of all applicant(s) & DOB if under 18yrs):

.....
.....
.....

Postal Address:

..... **Postcode:**

Phone(s):

Email:

Signature:

Payment may be made at Meetings, at Bank or Online Direct Deposit - Permaculture Cairns Account at Cairns Penny Bank in Grafton Street. BSB 704-966 Account No. 100009440 please include your Surname as reference.

Do you have skills that you would be willing to share that would be of help to Permaculture Cairns? If so please give details below-

.....

Permaculture Cairns Public Meetings - All Welcome Third Tuesday of month Feb to Nov (Second Tuesday Dec). Doors open 6pm, meeting starts at 6.30pm at: Flexible Learning Centre, 90-92 Clarke St. (off Hoare St), Manunda

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