

Permaculture Cairns Inc. 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

Care of the Earth, Care of

People. Share the excess

Hello Everyone.

Welcome to the Permi News.

There are some confronting articles in this issue, mostly to do with what is happening in “the environment” - that’s where we live isn’t it? - sometimes we just brush over this point.

It really is where we physically live, where we come in contact every minute of every day - it's the air we breathe, the earth we grow our food in, and the water we drink and we have managed to contaminate all of it, even the oceans.

It is time for a big hard look at how we live, what is important to you, how we spend our money, what we buy and how we dispose of those things we no longer need. Think twice before buying the latest version of the latest fad article, think what resources have gone into the making, how much fossil fuel was used to get it to you and how will it be disposed of when the fad is out of date.

Don't use pesticides, insecticides, herbicides and fungicides, grow your own food organically or buy organically grown food, if you love your children, don't feed them NON organic fruit and vegetables, don't use synthetic fertilizers, recycle your kitchen waste, mulch your shrub and tree trimmings, make compost, slow down and start enjoying life, its short, treasure every minute and try to leave the planet in a better state than you found it. President, Workshop Coordinator and Newsletter Editor: Carol Laing

October Public Info Meeting

Tuesday 21st 6:30pm for 7pm start

Flexible Learning Centre, 90 Clarke Street, Manunda
Clarke Street comes off Hoare on the Salvos Corner.

Members please bring a plate of finger food to share, and a friend.

Join us for the monthly info night meeting
we usually have Guest speakers, presentations, community information, upcoming workshop details, and a chance to network with like minded people
over a cuppa and a nibble.

Last month was SEPTEMBER IN THE TROPICAL GARDEN

Carol's presentations were about Preparing the garden for the wet season, and what to plant in the September Tropical Garden. Tegan gave a short talk on growing Microgreens.

Message from the Management Committee – if you join now your membership will continue until the end of 2015.

PERMACULTURE PRINCIPLE NO 10

Use and value diversity – “don't put all your eggs in one basket”

Diversity reduces vulnerability to a variety of threats and takes advantage of the unique nature of the environment in which it resides.

The remarkable adaptation of the spinebill and hummingbird to hover and sip nectar from long, narrow flowers with their spine-like beak symbolises the specialisation of form and function in nature. The proverb “don't put all your eggs in one basket” reminds us that diversity offers insurance against the variations of our environment.

PERMACULTURE CAIRNS WORKSHOPS



Care of the Earth, Care of

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RECYCLING KITCHEN ORGANIC WASTE

18th October 2014 - 9.am for a 9.30 start – 12.30 finish

Workshop Presenter:- Carol Laing

This workshop will cover various ways of using your kitchen scraps to create a nutrient rich organic fertilizer for your garden.

How additions of Minerals and Biochar benefit your compost.

How to make your Compost Bin work correctly

Using Stationery Compost Bins and Compost Heaps

Sheet Composting, Earthworms, Worm Farms, and Bokashi Bins

Registration is Essential: Email: – workshops@permaculturecairns.org.au

Venue : will be advised on registration at – workshops@permaculturecairns.org.au

COST: There is a \$10 fee for this workshop, which you can pay on the day.

Morning tea will be provided free of charge

We thank the Cairns Regional Council for the Sustainability Grant Program and the Flexible Learning Centre for making these workshops possible.



OTHER DATE CLAIMERS

HILL TOP FARM WORKSHOPS – COOKTOWN

CREATING DELICIOUS FOOD IN SUMMER FROM YOUR TROPICAL GARDEN

1 – 2 November 2014

Join us for a weekend exploring simple and delicious ways to prepare fruits and vegetables we can easily grow during our tropical summers. Simple, tasty meals your whole family will enjoy without needing expensive trips to the supermarket.

GETTING TO THE HEART OF PERMACULTURE DESIGN

20 – 24 MARCH 2015

For more info check out the web site: <http://hilltopfarm.wix.com>

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BLOOM HEALTH AND WELLBEING EXPO

Saturday 18th October 2014 – 9am to 4.30pm

Cairns Colonial Club

Tickets and info - www.balancelifeandbloom.com

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COOL HOMES – free SUSTAINABLE HOME DESIGN WORKSHOP

Thursday 30th October 5.30 – 8pm

Due to popular demand Cairns Regional Council is holding another **free** *Cool Homes* workshop. This community workshop is for anyone building, buying or renovating a home. Participants will learn about creating a cool home and will be able to design their own cool home in a fun and interactive workshop facilitated by People Oriented Design. They will also receive a copy of Council's *Cool Homes: Smart design for the tropics* guide. This guide can also be downloaded from www.cairns.qld.gov.au/buildings.

Venue: Civic Reception Room, Cairns Regional Council, Spence Street, Cairns

A light supper will be provided.

To register for these workshop please email sustainability@ Cairns.qld.gov.au or phone 4044 3312.

CAIRNS SEED SAVERS MEETING

Sunday 2nd November 2014

Jo's Place, 39A Clifton Road, Clifton Beach

Info: Jo 4055 3053

Bring, organically grown, non-hybrid seeds, a plate of food to share for lunch, you own chair, plate and cutlery, spare seedlings, cuttings, plants and produce for the Share Table.

10 - 10:15AM Meet'n'greet and general housekeeping

10:15 – 10:30 Concept of Seed Savers

10:30 – 11:30 Seed sorting

11:30 – 12:30 Talk by Michael Gunzburg (Jo's husband) - about home Bee keeping and demo of harvesting your own honey. If you are allergic to bee stings please come prepared!

12:30 – 1PM Enjoy a shared lunch

1 -2PM Tour of Jo's very productive garden

Rural Training Queensland – FNQ ORGANIC GARDENING WORKSHOP

Sunday 12 October 2014 full day

“Getting your system started”

With Wayne Rankine and Les Anwyl

Candlenut Steiner School, 46 Boyles Road, Kuranda

How Much: \$100 per person

[For more info and to enroll please call: 1800888710](tel:1800888710)

Biodynamic FNQ Craft Day 26th October, 2014 10am to 4pm

ACTIVITIES such as: Knitting, jewellery making, beading, weaving, crochet, cooking corner, papermaking, stitching, felt making, french knitting, bring a hat and decorate it, soap making, cheese making, bread making, water colours, crazy patchwork, fabric painting, dream catchers, garlands, decorate a cow horn, scarecrow, BD scrap calendar book, mosaic, make your own pendulum, music and singing,, show and tell. You might like to run a meditation, give a massage or a Bowen treatment.

please phone [Ulla on 0457589223](tel:0457589223) or email her at pederulla@hotmail.com

Venue: Malanda Showground Hall – Bring lunch to share

TASTE OF THE TABLELANDS FESTIVAL

Sunday October 19th 2014 – 9am to 4pm

Chinese Temple Grounds - Atherton

The 2014 Tastes of the Tablelands Festival hosted by the Rotary Club of Atherton will be bigger and better than ever before. This event will once again be held at the Chinese Temple Grounds on Herberton Road on Sunday 19th October 2014 from 9am – 4pm. Visitors are encouraged to come dressed for a garden party as there will be lots of shade, non-stop entertainment, gourmet food and cool drinks to while away the day.

Visitors to the Tableland will be able to have the full food experience from the land to the table at this festival. Farmers from across the region will be selling their produce on the day allowing visitors to see fresh produce at its best. The Super Chefs Competition in the Cooking Tent will be the place to see this fresh produce turned into delicious meals by chefs of our region. In this area chefs from our region as well as apprentice chefs will cook it out to become the champion chef of the day. This competition runs all day and should not be missed.

PERMACULTURE DESIGN COURSE – WALKAMIN

FREE RANGE PERMACULTURE

November 16 to November 30th 2014

With Kym Kruse, Janet Millington and Blake Hudson

Included in your Course Fee:

Joining us for family homestead style yummy lunch & dinner, seasonal, local and organic where possible, mainly vegetarian with some omnivore options, fruit and snacks for morning and afternoon tea. Should you require special dietary requirements you may need to supplement.

Please get in touch to discuss the options. Your course fee includes take-home resources, as well as our ongoing advice and assistance should you have any questions that may arise post course.

For Course details and info check out the web site:- <http://freerangepermaculture.com.au>

TABLELANDS LETS - OCTOBER CALENDAR

TABLELAND LETS - Relocalising all of Far North Queensland

TARZALI - Wednesday 1st 6.30 till 9.30pm 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! Event host: Gavin - 40965929

CASSOWARY COAST - Sunday 5th Picnic at Johnstone River Community Gardens THIS IS NOT A LETS EVENT however LETS folk are very welcome. Contact Bernie Holden - 0403523244

MAREEBA - Saturday 11th 11am till 1pm Trade Day, 7 Kenneally Rd, Mareeba, children welcome. This event is a couple of houses down from our LETS Mareeba drop off. Bring along something to trade and a plate for shared lunch. Event host: Coco - 40924396

MALANDA - Sunday 12th 2 till 4pm Trade Afternoons at Mary & Mathieu's place, bring a plate to share for lunch and something to trade. 7 Cleminson Close, Malanda. Event host: Mary - 0428424201 or mama1428@bigpond.com

RAVENSHOE - Saturday 18th 12 till 2pm Trade afternoon - Youth Shed, Ravenshoe Community Centre, 3 Bolton Street following Community Gardens gathering - come and check it out. Bring something to trade, a table or blanket to display your wares and lunch to share. Event host: Kathy - 40977864

CASSOWARY COAST - Sunday 19th 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. Event host: Suari - 0403115261. Car pooling/collection service encouraged from the Tablelands and Cairns!

CAIRNS - Tuesday 21st 6.30pm LETS Trading is encouraged at Permaculture Cairns monthly meetings at the Flexible Learning Centre, 90 Clarke Street, Manunda. Cost for non-members to attend is \$5 for info session, supper and film etc. A Permaculture Cairns Event

Malanda - Tuesday 21st 6.30pm Malanda Community Garden Fundraiser at the Malanda Hotel Ballroom. THIS IS NOT A LETS EVENT. Western Australia's Formidable Vegetable Sound System in a live show based around the principles of Permaculture. Entry by donation - Tableland LETS account holders can pay in Bartles.

☆☆☆☆☆NEW EVENT☆☆☆☆☆

KURANDA - Saturday 25th 10am -1pm 7 Barrons Falls Road, Kuranda. Let's build Kuranda up again! Bring along a friend, something to trade, a table or blanket to display your wares and any promotional material for services you would like to offer. Car pooling/collection service encouraged for those coming across the region Event Host: Blake Hudson - 0448938270

What to bring to Trade Events where not specified above: food & drinks for yourself or to share, or money and/or Bartles at some venues, friends, Trading Record Sheet and pen, any goods you wish to trade, table/rug to display them upon is often useful, your own chair at some venues, promotional material of any services you are offering if applicable, \$20 to join LETS if you are not yet a member.

tablelandlets@gmail.com - 4096 6972 - tablelandlets.org - www.communityexchange.net.au

Reminder

12th Australasian Permaculture Convergence (March 2015, Tasmania, Australia)

What: 12th Australasian Permaculture Convergence

Where: Northwest Environment Centre, Penguin, Tasmania, Australia

When: Monday, 9 March 2015 at 6:00pm — Thursday, 12 March 2015 at 10:00pm (AEDT)

Have questions about 12th Australasian Permaculture Convergence? [Contact Northwest Environment Centre](#)

News Items

The Kink in the Human Brain

Posted October 3, 2014 by Gerge Monbiot

<http://permaculturenews.org>

This is a moment at which anyone with the capacity for reflection should stop and wonder what we are doing.

If the news that in the past 40 years the world has [lost over 50% its vertebrate wildlife](#) (mammals, birds, reptiles, amphibians and fish) fails to tell us that there is something wrong with the way we live, it's hard to imagine what could. Who believes that a social and economic system which has this effect is a healthy one?

Who, contemplating this loss, could call it progress?

In fairness to the modern era, this is an extension of a trend that has lasted some two million years. The loss of much of the African megafauna – sabretooths and false sabretooths, giant hyaenas and amphicyonids (bear dogs), several species of elephant – [coincided with the switch towards meat eating](#) by hominims (ancestral humans). It's hard to see what else could have been responsible for the peculiar pattern of extinction then.

As we spread into other continents, their megafaunas almost immediately collapsed. Perhaps the most reliable way of dating the first arrival of people anywhere is the sudden loss of large animals. The habitats we see as pristine – the Amazon rainforest or coral reefs for example – are in fact almost empty: they have lost most of the great beasts that used to inhabit them, which drove crucial natural processes.

Since then we have worked our way down the foodchain, rubbing out smaller predators, medium-sized herbivores, and now, through both habitat destruction and hunting, wildlife across all classes and positions in the foodweb. There seems to be some kink in the human brain that prevents us from stopping, that drives us to carry on taking and competing and destroying, even when there is no need to do so.

But what we see now is something new: a speed of destruction that exceeds even that of the first settlement of the Americas, 14,000 years ago, when an entire hemisphere's ecology was transformed through a firestorm of extinction within a few dozen generations, in which the majority of large vertebrate species disappeared.

Many people blame this process on human population growth, and there's no doubt that it has been a factor. But two other trends have developed even faster and further. The first is the rise in consumption; the second is amplification by technology. Every year, new pesticides, new fishing technologies, new mining methods, new techniques for processing trees are developed. We are waging an increasingly asymmetric war against the living world.

But why are we at war? In the rich nations, which commission much of this destruction through imports, most of our consumption has nothing to do with meeting human needs.

This is what hits me harder than anything: the disproportion between what we lose and what we gain. Economic growth in a country whose primary and secondary needs have already been met means developing ever more useless stuff to meet ever fainter desires.

For example, a vague desire to amuse friends and colleagues (especially through the Secret Santa nonsense) commissions the consumption of thousands of tonnes of metal and plastic, often conected into complex electronic novelties: toys for adults. They might provoke a snigger or two, then they are dumped in a cupboard. After a few weeks, scarcely used, [they find their way into landfill](#).

In a society bombarded by advertising and driven by the growth imperative, pleasure is reduced to hedonism and hedonism is reduced to consumption. We use consumption as a cure for boredom, to fill the void that an affectless, grasping, atomised culture creates, to brighten the grey world we have created.

We care ever less for the possessions we buy, and dispose of them ever more quickly. Yet the extraction of the raw materials required to produce them, the pollution commissioned in their manufacturing, the infrastructure and noise and burning of fuel needed to transport them are trashing a natural world infinitely more fascinating and intricate than the stuff we produce. The loss of wildlife is a loss of wonder and enchantment, of the magic with which the living world infects our lives.

Perhaps it is misleading to suggest that “we” are doing all this. It’s being done not only by us but to us. **One of the remarkable characteristics of recent growth in the rich world is how few people benefit.** Almost all the gains go to a tiny number of people: **one study suggests that the richest 1% in the United States capture 93% of the increase in incomes that growth delivers.** Even with growth rates of 2 or 3% or more, working conditions for most people continue to deteriorate, as we find ourselves on short contracts, without full employment rights, without the security or the choice or the pensions their parents enjoyed.

Working hours rise, wages stagnate or fall, tasks become duller, more stressful and harder to fulfill, emails and texts and endless demands clatter inside our heads, shutting down the ability to think, corners are cut, services deteriorate, housing becomes almost impossible to afford, there’s ever less money for essential public services. What and whom is this growth for?

It’s for the people who run or own the banks, the hedge funds, the mining companies, the advertising firms, the lobbying companies, the weapons manufacturers, the buy-to-let portfolios, the office blocks, the country estates, the offshore accounts. The rest of us are induced to regard it as necessary and desirable through a system of marketing and framing so intensive and all-pervasive that it amounts to brainwashing.

A system that makes us less happy, less secure, that narrows and impoverishes our lives, is presented as the only possible answer to our problems. There is no alternative – we must keep marching over the cliff. Anyone who challenges it is either ignored or excoriated.

And the beneficiaries? Well they are also the biggest consumers, using their spectacular wealth to exert impacts thousands of times greater than most people achieve. Much of the natural world is destroyed so that the very rich can fit their yachts with mahogany, eat bluefin tuna sushi, scatter ground rhino horn over their food, land their private jets on airfields carved from rare grasslands, burn in one day as much fossil fuel as the average global citizen uses in a year.

Thus the Great Global Polishing proceeds, wearing down the knap of the Earth, rubbing out all that is distinctive and peculiar, in human culture as well as nature, reducing us to replaceable automata within a homogenous global workforce, inexorably transforming the riches of the natural world into a featureless monoculture.

Is this not the point at which we shout stop? At which we use the extraordinary learning and expertise we have developed to change the way we organise ourselves, to contest and reverse the trends that have governed our relationship with the living planet for the past two million years, and that are now destroying its remaining features at astonishing speed? Is this not the point at which we challenge the inevitability of endless growth on a finite planet? If not now, when?

The oceans are full of our plastic – here’s what we can do about it

By **Britta Denise Hardesty**, *CSIRO* and **Chris Wilcox**, *CSIRO*

By 2050, 95% of seabirds will have plastic in their gut. That is just one finding from our **national marine debris research project**, the largest sample of marine debris data ever collected anywhere in the world.

The statistic is just one prediction of what’s in store if we don’t come to grips with the growing problem of rubbish at sea. The issue of marine debris was recently brought to the world’s attention by the search for missing **Malaysian Airlines flight MH370**, which was reportedly hampered by **objects that look similar to aircraft remains**.

When you consider that six million tonnes of fishing gear is lost in the oceans each year, yet derelict fishing gear doesn't even crack the **top ten most common items** found during coastal clean-ups, you begin to grasp the scale of the problem.

Plastic not so fantastic

The Australian government has a “**threat abatement plan**” which aims to save marine animals from being harmed by rubbish. We set out to inform this plan by developing a better understanding of where exactly this rubbish comes from and how exactly it harms wildlife.

We surveyed the entire Australian coast at 100 km intervals, with help from school groups and citizen scientists. We found that our shorelines are littered with debris. About three-quarters of it is plastic and, although there are some large items, 95% of the items are just a few centimetres across, or smaller.

In Australian waters, you can expect to find anything from a few thousand to more than 40,000 pieces of plastic per square kilometre.

Our rubbish **can travel huge distances**, leaving behind a trail of destruction. We found that **almost half (43%)** of seabirds have plastic in their gut, with young birds being particularly susceptible. If the increasing trend of plastic production increases and no effort is made to curb the amount that finds its way into the oceans, then by 2050 nearly every seabird (95%) will have ingested some plastic.

Globally, about one-third of marine turtles are estimated to have **ingested debris**, and this figure has steadily increased since plastic production began in the 1950s.

Many turtles are **killed and maimed** by abandoned fishing nets each year, along with other species including whales, dolphins, dugongs, fish, **crabs and crocodiles**. In the past few years, we estimate that between 5,000 and 15,000 turtles have been ensnared by these “**ghost nets**” in the Gulf of Carpentaria alone.

Reining in our rubbish

Ocean trash is so dispersed that it is not practical to collect it at sea. It might sound obvious, but the most effective way to reduce the harmful effects of sea debris is to prevent it from getting there in the first place. Our research shows that the vast majority of this rubbish comes from the land, with large concentrations near our cities, rather than from litter dropped at sea.

Tackling the problem will mean getting people to change their ways. Here are three ways we can do it: education, rewards, and punishment.

Education

As part of this project we engaged directly with nearly 6,000 students, teachers and members of the public, as well as reaching more than two million Australians and a **wide international audience**, all with the aim of changing attitudes towards ocean health.

We also focused on building foundations for the next generation of marine researchers through a mentoring program in which eight international and four Australian students participated intensively in the project.

Additionally we developed an online **national marine debris database** which allows members of the public to contribute data about litter they find at their local beach. We also engaged with existing initiatives such as **Clean Up Australia**, **Tangaroa Blue**, the **Surfrider Foundation** and other groups that are cleaning up Australia's beaches.

Together, all of these organisations and citizen scientists contribute to the improved understanding of the types, amounts and sources of debris we find on Australia's coastline.

Meanwhile, we have tackled the specific issue of **derelict fishing gear** in the Gulf of Carpentaria- most of which comes from overseas sources- by identifying a “pinch point” in the gulf near the port of Weipa where ghost nets can be **collected relatively easily and cheaply**, before they reach high-density turtle areas.

The carrot...

Economists often emphasise the important role of incentives in modifying behaviour. South Australia's

container deposit legislation has helped to reduce the number of plastic drinks containers entering the environment by a factor of three, suggesting that incentive schemes can positively impact on levels of waste.

...and the stick

Regulation can be effective, but it needs to be targeted to have the best chance of success.

Using our coastal survey data and interviews with more than 40 coastal councils around Australia, we found evidence for two main drivers behind marine debris: general public behaviour, and illegal dumping of refuse.

Similarly, we found that local council outreach, which presumably affects user behaviour, and anti-dumping campaigns were both effective in reducing the debris found in coastal areas.

Making a difference

Littering isn't the only cause of the problem. Even toothpaste and personal care products can have plastic microbeads in them which end up in the marine environment and are mistakenly eaten by a range of species. Awareness is a major issue here, but there are guides being developed to help consumers make informed choices about the products they use.

Working together, scientists, industry partners, coastal managers and citizen scientists can make significant strides to reduce sea debris impacts in coastal areas and in the marine environment.

Ultimately, however, the throwaway culture ingrained in our society needs to change if we are to tip the scales back in favour of the wildlife in our oceans.

Britta Denise Hardesty's research was co-funded by Shell Australia's National Social Investment Program and CSIRO's Oceans and Atmosphere Flagship. TeachWild is an innovative national partnership between CSIRO, Earthwatch and Founding Partner Shell Australia to gather the data needed to bridge the information gap and tackle the global issue of marine debris.

Chris Wilcox's research was co-funded by Shell Australia's National Social Investment Program and CSIRO's Oceans and Atmosphere Flagship. TeachWild is an innovative national partnership between CSIRO, Earthwatch and Founding Partner Shell Australia to gather the data needed to bridge the information gap and tackle the global issue of marine debris.

This article was originally published on [The Conversation](#).



BUILDING TRUST IS KEY TO MINING'S 'SOCIAL LICENCE'

CSIRO news release 23 september 2014

Australians have endorsed the important role mining plays in the prosperity of the nation but there is still much to be done to bolster the industry's acceptance, trust and support, according to a CSIRO report released today.

Released at the International Mining and Resources Conference in Melbourne, the Australian attitudes toward mining report is based on a survey of more than 5000 people Australia-wide.

According to lead researcher, Dr Kieren Moffat, the survey provides insights and data on community attitudes and possible ways for the sector to build its future opportunities and 'social licence to operate'.

"A key finding is that, Australians consider that mining is a worthwhile pursuit when you weigh up all the associated benefits and costs," Dr Moffat said. "The survey shows Australians broadly accept mining and that acceptance underpins the social licence to operate, but it shows that support is fragile and subject to things like perceptions of mining impacts, governance and the sharing of benefits."

The survey in 2013/14 covered 1283 people living in or near mining operations in 11 identified regions as well as 1562 people living in non-mining regions and 2276 people in metropolitan areas across the country. The survey forms part of a larger CSIRO program of work examining the relationship between mining and society at different scales in Australia and internationally - with a similar report just released for Chile.

"Australians across mining, non-mining and metropolitan regions strongly agreed that mining contributes significantly to the economy, to the standard of living, to our way of life and our future prosperity. Those surveyed in each group also generally agreed that mining creates jobs, opportunities and infrastructure in regions," Dr Moffat said.

"There are however relatively strong community perceptions that mining impacts negatively on the environment, water quality, agriculture, climate change and the health of local communities." Those surveyed expressed mid-range levels of trust in state and federal governments, the industry and non-government organisations and a below mid-range rating of the capacity of governments or legislation to keep the industry accountable.

"The work indicates that Australians trust and accept the industry more when the industry hears and is responsive to their concerns, when benefits from mining are shared equitably, and when the legislative and regulatory frameworks we have in place provide confidence that industry will do the right thing," Dr Moffat said.

The data is available through a CSIRO portal to allow anyone interested access to explore from their own perspective.

"The work shows that building trust and acceptance and the 'social licence' of the mining industry will require industry, governments and other stakeholders to work together with the wider community," Dr Moffat said.

GLOBAL CARBON DIOXIDE EMISSIONS REACH 36BN TONNES IN 2013

CSIRO NEWS RELEASE 22 September 2014

Global emissions of carbon dioxide from the combustion of fossil fuels reached a new record of 36 billion tonnes last year. At the same time, the pace of emissions from burning fossil fuels continues to grow at a high rate.

Executive-Director of the Global Carbon Project (GCP) and co-author of the 2014 report CSIRO's Dr Pep Canadell said the carbon dioxide level was "unprecedented in human history".

Dr Canadell said fossil fuel carbon dioxide emissions are projected to increase 2.5 per cent this year, bringing the total carbon dioxide emissions from all sources above 40 billion tonnes.

"Fossil fuel emissions in the past 10 years on average grew at 2.5 per cent per year, lower than the growth rate in the 2000s (which was 3.3 per cent per year) but higher than the growth rate in the 1990s (1 per cent)," Dr Canadell said.

"The declining growth rate in recent years is associated with lower GDP growth compared to the 2000s, particularly in China."

The report shows that Australian emissions continued to decline in 2013, adding to a downward trend that began in 2009, largely due to the decline in electricity generation from coal power plants.

The largest emitters in 2013 were China, USA, the European Union, and India, together accounting for 58 per cent of global emissions.

Fossil fuel emissions are tracking the high end of emissions scenarios used by climate scientists to project climate change using global circulation models.

The GCP provides an annual report of carbon dioxide emissions, land and ocean sinks and accumulation in the atmosphere, incorporating data from multiple research institutes from around the world.

The full data and methods are published today in the journal *Earth System Science Data Discussions*, with associated papers in the journals *Nature Geoscience* and *Nature Climate Change*. Data and other graphic materials can be found at: www.globalcarbonproject.org/carbonbudget

This media release is part of the Global Carbon Budget 2014 of the Global Carbon Project, based on four analyses published on 21 September 2014, 6:00 pm UK time.

Creating new community links to science

1 October 2014

The call has gone out for new and innovative ideas to extend the reach of science into the Australian community, as Minister for Industry Ian Macfarlane today opened the 2015 *National Science Week* grant round.

“The purpose of the programme is to facilitate new ways and support new activities that will bring the largest number of people in our community in contact with science and reinforce the important role science plays in our society and for our economy.

“We’re looking for fresh and innovative ideas from artists, libraries, research institutes, museums and other community locations,” Mr Macfarlane said.

A total of \$500,000 will be invested in science engagement projects during National Science Week celebrations. Grants of between \$2,000 and \$25,000 are available to support public events to be arranged across the country.

“*National Science Week* is an incubator for increased interest and participation in science in Australia.

“The independent grant selection committee will be looking for inventive proposals that deliver on this objective via new styles of events targeted at new audiences in new places.”

Applications are due by 4 pm AEDT 23 October 2014. *National Science Week* will be held from 15–23 August 2015.

During this year’s *National Science Week* more than 1.3 million Australians took part in 1700 events. *National Science Week* is administered by Questacon – The National Science and Technology Centre in Canberra.

For more information about *National Science Week*, visit www.scienceweek.net.au.

Nutrition Matters - Cover Cropping and Intercropping

What to Embrace and What to Avoid

Here are three pointers for those considering cover cropping:

1. Avoid the common practice of **mixing a brassica** with legumes and cereals when attempting to create more biodiversity in your cover crop. The biodiversity concept is fine and a multiple species mix is great, but the brassicas can be counterproductive in the mix. Here's why: brassicas release biochemicals to dissuade certain root-dwelling organisms. That is good news if you have a problem with root knot nematodes, but it is bad news if you want your cover crop to host all-important mycorrhizal fungi. If the brassicas are peppered throughout your cover crop, the plants that surround each brassica will struggle to achieve mycorrhizal colonisation due to the toxic root exudates nearby.
2. If you are an orchardist, dairy farmer or viticulturist and you live in a frost-free zone, you need to know about **Pinto Peanut**. This is a truly amazing cover crop. It produces a dense, yellow-flowered ground cover that only grows a few inches tall. It easily outcompetes weeds and requires no maintenance. Research at the Alstonville Tropical Fruit Research centre in Northern NSW several years back showed that there is no competition with the tree crop for moisture. Like all legumes, the Pinto Peanut delivers a significant supply of nitrogen, calcium and phosphorus, but this legume is unique in that it also delivers potassium. It appears that the deep-rooted legume mines potassium and delivers it to the feeder roots of the tree (in the top six inches). This was not just a token supply. One of the soils tested revealed a threefold increase in potassium just two years after the legume had been introduced. Potassium is the most expensive major mineral, so this is a huge cost-saving benefit. The legume is grown from seed, but once you have it established you just take cuttings and root them in a bucket to spread this little beauty everywhere (and believe me you will want to do this). During a seminar tour of Hawaii, I visited an iconic, mixed-species orchard where the botanist in control had Pinto Peanut on every available square metre of land. He even had several buckets full of cuttings rooting in water so he could replace his front lawn with this beautiful ground cover.
3. **Oats** are unique in that they produce a legume-like exudate that also breaks the bond between locked up phosphorus and calcium. Oats are a favourite of those utilising a highly productive interplanting practice called **pasture cropping**. Here, rows of oats are planted 60 cm apart into a winter dormant pasture, to provide supplementary feed over winter. If you treat the oat seed with mycorrhizal fungi ([NTS Nutri-Life Platform®](#)) at planting, the associated living root extension will spread to your pasture crop and this becomes a cheap technique to colonise the entire paddock.

Some interesting comments from Nutri-Tech solutions. 25/9/14

Rapid Building of Soil with Cover Crops, Mob Grazing

North Dakota Farmer Gabe Brown Combines Cover Crops for Improved Soil Health, Fertility and High Yields

Gabe Brown is one of the nation's tireless proselytizers in favor of innovative cover cropping. Though he approaches the issues of soil health and crop diversity from the standpoint of a typical industrial farmer — “production agriculture” — his farm in Burleigh County, North Dakota, is now almost entirely free of inputs and applications. As he explains below, in the near future Brown expects to phase out the herbicide he applies every few years. Brown's whole career refutes the shibboleths about the necessity of employing expensive inputs and GMOs (which he also avoids) to maintain big yields. He is one of the few people around these days who offers production farmers a way out of the darkness. Gabe Brown graciously told his story while between tasks on his farm in early August.

— Chris Walters

This is about an interview with Gabe Brown by Acres USA and goes on to explain what Gabe does on his farm, which in a nutshell is putting massive numbers of cattle on a small area of ground and moves them often during the day, and he also runs them on the green manure crop. When seeding a green manure crop he uses between 15 – 20 different seeds which creates massive amounts of organic matter on top of the soil and within the soil – especially if using deep rooted plants, such as radish. He also grows two crops together, a tall one like canola and a shorter one

like peas. This increases his harvest and also improves the soil. He now has organic matter of 6.1 percent instead of 1.7. Some of his comments

“so I’m over 25 percent higher (that refers to increase in harvest) than that, yet I have zero fertilizer cost. I have no fungicides, and I have no pesticides. We’re down to about one herbicide pass every two to three years, depending on the crop rotation and which fields we’re using. I tell people I’m striving to get to where I eliminate all my herbicide uses totally, but I will not use tillage to do that. To me, tillage is just too detrimental to the soil health.” “ This past year in 2012, my total cost of production to plant the corn, harvest it, store it, haul it to market, land cost, equipment cost, everything, was \$1.42 a bushel. I tell people corn can drop to \$2 abushel, and I’m still going to make money.”

<http://www.acresusa.com>

WHAT ?

“Gardens and Micro Farms are Cost Inefficient and Fail to Feed Society”

People keep telling me that gardens and micro farms are cost inefficient and fail to feed society. Sometimes this information is delivered loudly and firmly with great emphasis on profit, and great personal attachment to the idea of its being true. There are a lot of myths and misconceptions about how modern chemical agriculture feeds the world. This is to be expected because so few people are even beginning to understand [the complexity of the relationships between bacteria, fungi, and plants](#) that create [living soil](#). Less than 1% of the organisms in living soil have been identified and named let alone given any study for us to begin to grasp their roles. This frontier is just opening up in science right now. The reason it wasn’t studied earlier was the myth that NPK — [Nitrogen](#), Phosphorus, and Potassium — were all that was needed to grow plants. Modern agriculture is based entirely on this myth. You can grow plants that way for a number of years, so long as you can afford the fossil fuels to do it and you don’t mind [the lack of nutrients in your food](#), however, there are two catches.

The first catch is that the N, P, and K are stabilized in salt and watered into the soil. A normal plant in healthy soil chooses which nutrients it needs from a long, long list and does starch exchanges at the hair root level with the bacteria and fungi who are dealing in that necessary nutrient. Plants have no choice but to drink water. So, when NPK based fertilizers are applied to the big mono crops, the plants [are force fed those fertilizers](#) through salt and watering until they become so bloated (more pounds = more money) that they are like beacons for pests, fungus, and weeds.

Then comes the second catch. The farmers must throw on massive amounts of [insecticide, fungicide, and herbicide](#) to try and help their very weak but large crops survive what would have been their natural demise. Think about that for a minute.... The companies that are creating and profiting from crops that attract pests, fungus and weeds, are also profiting from the sale of pesticides, fungicides, and herbicides to manage those problems that they exacerbate. All of these poisons kill the living organisms in the soil. Those living organisms were there ready to not only feed current plants, but also to continue doing the exchanges that would create the food for future plants. (Not to mention [all that living soil does for us in carbon sequestration](#).) Nutrients in the soil are finite when the soil is dying/dead. In fact even with nutrient rich soil, if you don’t have the right pH and combination of living organisms to do the exchanges with the plants, those nutrients are as unavailable to the plants as if they were locked away in a safe. So, eventually, the only way to yield a crop is by moving to new ecosystems and fresh living soil somewhere else that hasn’t yet been depleted and killed. Well, that is the only way other than growing your crops in ways that encourage rather than kill that soil life, in ways that help plants gFossil fuel issues aside, modern farming can only move over to the next field so long before all the soil is dead. Game over. Big chemical agriculture and GMOs can only continue so long as more and more cash is thrown in and more and more soil is killed. So the problem is not that chemical agriculture is just unsustainable from an eco-friendly perspective, it is literally unsustainable, and leaves us with soil unable to grow food without high inputs. It is magical thinking to assume that science even has the time to solve this collapse of billions upon billions of different living relationships in the soil that have barely begun to be studied.

When Cuba lost access to fossil fuels in the early 1990s people began to starve. In desperation, everyone, everywhere began growing food. They survived precisely because of the emergence of gardens and small farms. This story is detailed in the documentary film, "[The Power of Community, How Cuba Survived Peak Oil](#)," directed by Faith Morgan. The reality is that gardening and small farms which build living soil are the only way humanity will be able to continue to feed themselves and the sooner we switch over, the more likely more people will survive when modern chemical agriculture reaches its end game.

The idea that third world people need the innovations of modern agriculture in order to eat is also a myth. First, there is more than enough food in the world, made unavailable by markets and profits, not scarcity. For more info on this read, "[Hope's Edge, the Next Diet for a Small Planet](#)," by Frances Moore Lappe and Anna Lappe. Second, a lot of those starving poor became so as western chemical agriculture and corporate interests colonized and pushed people off of their land where they were previously feeding themselves just fine from living soil ecosystems and home gardens. This shift was graphically documented in the book, "[Ancient Futures, Lessons from Ladakh for a Globalizing World](#)," by Helena Norberg-Hodge. Also, it is impossible to ignore the tens of thousands of third world farmers who have committed suicide because of the high costs and subsequent failures of GMO crops and other farming practices based on killing the soil. They often commit suicide by drinking the same poisons that killed their soil and destroyed their family's ability to grow a diverse and nutritious diet. On the heels of these sort of tragedies, and deficiencies in access to nutrients, 1st world solutions like Golden Rice are an offensive and blind gesture. If their soil was still alive they could grow crops that were far more nutrient dense and available locally. But then that would cut out the corporate middle man, and point out that "The Green Revolution" of chemical agriculture and depleted soil is actually what is depriving people of nutrients in their food supply. But Westerners keep making themselves feel better offering poor people modified rice. Kind of like offering a crippled person a flimsy cane while continuing to kick them downhill.

Gardening and micro farming are only inefficient when your priority is profits for the few big agri corporations, rather than many local family farmers making profit off of many separate smaller acreages. Micro farms can make well over \$1,000 per acre, while big chemical agriculture makes about \$25 per acre. If you start to look at the pounds of food per square foot, and nutrient density in food grown in living soil, industrial agriculture comes up shamefully inefficient. Not only are big agribusiness and GMO farming inefficient at the amount of nutrient produced per acre, they are also the most inefficient at creating the soil life that will guarantee that we can eat next year and the year after that, etc. So, the question is which matters more, deficiency in profits for a few, or deficiency in life?

This is an article posted on The Permaculture Research Institute News 24 Sept 2014.- please read on to the book review as this is a huge subject which we all should be very very aware of.

Book review: "The Myths of Safe Pesticides"

I have just read a recently released book called "The Myths of Safe Pesticides" which was written by Andre Leu, a longtime organic farmer from FNQ. Andre is President of IFOAM, the International Federation of Organic Agricultural Movements a worldwide organization with 800 member organizations in 120 countries.

Andre has written this book to share his concerns about the pesticide industry claim that we cannot survive without their products. He maintains we can and that small farms are capable of producing more food per acre than the broad scale farms of today and the food is not contaminated by insecticides, fungicides and herbicides.

He also explains that there has been plenty of published science backed evidence to show that most if not all pesticides in use today in the world have not been properly tested and are now causing massive health problems in present generations and will continue to pass these problems on to future generations.

Studies by the World Health Organisation in 2012, United Nations Environment Programme, United States President's Cancer Panel 2010 to name **just a few**, all confirm his claims that these so called safe pesticides are causing massive health problems throughout the world.

The book is published by Acres USA and is available from their web site: <http://www.acresusa.com/the-myths-of-safe-pesticides> Special price \$14.99

To avoid these toxic substances contaminating your food, buy only organically grown food or grow your own, it is easier than you think.

If you are interested in finding out how to GROW NUTRIENT RICH SAFE food, contact Carol Laing at workshops@permaculture Cairns.org.au

SNIPPETS of news to follow up:

Climate Summit 2014 – catalysing action UN Headquarters – New York – 23 September
<http://un.org/climatechange/summit/2014>

Check out the recently released report on the Coal Seam Gas industry -
Independent Review of Coal Seam Gas (CSG) Activities in NSW – Final Report (30th September
2014) at <http://www.chiefsceentist.nsw.gov.au/report>

Informative, useful and Interesting Websites:

<http://www.greenliving.com>: An Australian website for supplies for fermenting, cheese and yoghurt making, lids for bottles etc.

<http://www.culturesforhealth.com> A USA website with lots of info, recipes, free eBooks on fermenting foods and lots more. You can sign up for their weekly newsletter. “And therein lies the lure of fermentation. As Pollan writes in Cooked, its deliciousness is the by-product of decay, and decay is a fermentor's dream and a food regulator's nightmare. But the times they are a'changing: recent medical research has concluded that one of the problems with the Western diet is the absence from it of live-culture foods, while another study has linked the intake of certain probiotics found in some ferments to improved mental function and mood. We need more decay, it seems, not less. So pass the sauerkraut, please. I've heard it can even cure middle age.”

<http://care2.com/greenliving/>

This website has lots of interesting topics, food that is banned elsewhere but still available in the USA, good alternative recipes for making healthy food eg. ice cream and lots more.

<http://manybooks.net> A place that offers free downloads of books – check out “Farmers of forty Centuries” by FJ King written 1911 after or during a trip to China, Korea and Japan. This incredible book explains how these peoples have been growing food for centuries. Check to see if Bread from Stones is there, another interesting read.

<https://www.organicgardener.com.au> Lots of info and a great planting guide for the year.

<http://rfcarchives.org.au/index.htm> - Rare Fruits council of Australia – Fruit/Nut Trees and lots Recipes

Date to remember for October and November :

12th October – FNQ Organic Gardening workshop - Kuranda

18th October – Permaculture Cairns - Recycling organic kitchen waste 9 – 12.30 – Cairns

18th October – Bloom health and wellbeing expo 9 – 4.30 - Cairns

19th October – Taste of the Tablelands – Atherton

25th October – Intro to Tropical Vegetables and Cooking Tropical Veg (Sorry booked out)

26th October – FNQ BioDynamic Craft Fun day on Tablelands – Malanda

30th October – Cairns Regional Council - Cool Homes workshop 5.30 – 8pm - Cairns

1st November – Permaculture Cairns - Passive Cooling Workshop 9 – 12.30 – Cairns

2ND November – Cairns Seed Savers 10 – 2pm – Clifton Beach

1 – 2nd November – Hill Top Farm Workshop - Cooktown

8th November – Small Farms Field Day – Malanda

16th – 30th November – Permaculture Design Course - Walkamin

PERMIE RESOURCES, & SERVICES

RESOURCES:

“Notes from the Workshops Booklet” All notes from the Permaculture Cairns Resilient Communities Workshops 2012 are now available for purchase at meetings and at Enviromart Australia on corner of Scott and Aumuller Street,

TOPICS COVERED: How to Grow your own Fabulous Organic Food, All about Earthworms, Growing Microgreens, All about Wicking beds, All about Aquaponics, Composting, Creating a raised garden bed, Tropical plants that grow all year round and recipes for cooking these, Drying and preserving excess fruit and vegetables, Balcony and patio gardening, How to use The Bokashi Bucket, Waste not want not – recycling organic waste, Poultry in the city, Vegetables for the small tropical farm or garden, and a Sprouting guide.

This is a MUST HAVE it's FULL OF LOCAL KNOWLEDGE about living in a environmentally friendly way and growing food sustainably in the tropics.

The booklet would make a great gift for anyone wanting to grow their own food in the tropics.

Edible Tropical Vegetable Plants: Tropical Vegetables and useful Plants available from Enviromart Australia on corner of Scott and Aumuller Street or phone Carol 0414900717

SERVICES

Do you need help to plan or build your garden???

Bruce Zell, Director of The Back Yard Revolution is a Permaculture Diploma Graduate, Licensed Structural Landscaper and has extensive experience in landscaping, food garden design and implementation, Project Management and more.

Contact Bruce for more details-

email: brucezell@gmail.com, www.backyardrevolution.com.au or

Mob. 0404 9944 528

Please note Memberships fees for 2014 are due and payable the 1st January 2014

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, eazzee peeze.



Permaculture Cairns

Membership Form 2014

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:

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.....
.....

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-

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Permaculture Cairns Public Meetings - All Welcome Third Tuesday of month Feb to Nov (Second Tuesday Dec). Doors open 6.30pm, meeting starts at 7pm at: Flexible Learning Centre, 90-92 Clarke St. (off Hoare St), Manunda

Enquiries

President: Carol Laing workshops@permaculturecairns.org.au

Secretary: Tegan McBride: info@permaculturecairns.org.au

Treasurer: Jenny McGrath treasurer@permaculturecairns.org.au

Website: www.permaculturecairns.org.au