

Permaculture Cairns Newsletter

EMPOWERING COMMUNITIES WITH SUSTAINABLE SOLUTIONS FOR 10 YEARS



Care for the Earth, Care for people, Fair share the excess

Permaculture Cairns Incorporated Web Site: www.permaculturecairns.org.au

Tuesday 16th June

Meeting will be held online again this month, so check it out at:

[Permaculture Cairns Facebook Page](#)

[Permaculture Cairns Facebook Group](#)

[Permaculture Cairns YouTube Channel](#)

6:30 PM Start

AGENDA

Welcome to all and Info on upcoming local events.

Different Methods of Food Preservation

Plus

Members Contributions – What grows right out your back door?

Featuring Photos and Video from Permaculture Cairns Members and Supporters.

The Tropical Veggie Patch

Permaculture Gardening in the hot, wet, humid Tropics
Well really not so hot wet and humid at the moment

Lately I have been walking on my Curry Leaf Tree.

DON'T PLANT A CURRY LEAF TREE IN THE GROUND.

It invaded the Banana circle started on the big wire compost pile and roots were popping up everywhere including in my next door neighbour's yard. Over 12 metres tall and throwing lots of shade, but it had to go.

The wood chips mixed with the green leaves started to compost as I was shovelling it the next day. The mix of wood chips and greens makes a great addition to the compost bins especially after add kitchen scraps. Wish it had it all the time. I use a lot of cardboard to supply the brown in the compost.

Six compost bins are full as I had to clear the fence line for a new fence to be erected. After 30 years of growing plants all along the length of the property including bananas, pineapples, aibika, arrowroot, cocoyams, papaya it has taken a few weeks and has turned into an archeological dig on occasions, lots of broken pottery from a past life.

The garden is full of Sunflowers, marigolds, zinnias and coleus all food for the 3 hives of native stingless bees. The veggies are loving the cool weather, the Wong Bok is starting to heart, rocket and lettuce aplenty along with Bok choy, Pak choy, lettuce, coriander, chard, celery, chicory, water cress, capsicum and amaranth. Brocolini starting to fruit, this was a cutting taken in March from last years' plant before removing to compost. The Mexican Tarragon is in full bloom it makes the garden look so happy. Garlic chives, chives, ginger, thyme, oregano, coriander, parsley, bunching shallots, radish, rosemary, basil, all loving the weather.

New plants for this year include Ethiopian cabbage, Purple Brocolini, Kohlrabi, Hong kong broccoli, Spicey Basil, Zucchini Tromboncino as seen on Gardening Australia at Sophie's place and Upland cress all looking good.

A little green house was built in May from a round trampoline cut in half and stood on the cut ends, it was covered in clear plastic to stop the heavy rain, and turned out just perfect for the early seedlings. This has proved to be useful for spelling plants that need to rest after being pricked out or potted up.

Microgreens/Sprouts - Give Microgreens or Sprouts a try they are easy, fast and tasty and don't take up much space on the kitchen bench near a window with sunlight. Fresh greens at your fingertips everyday. Grow a plant like Sunflowers and when past the microgreen stage plant it out to

flower then collect the seed for growing later. Bok choy, rocket, radish, mung beans and coriander seeds are easy to save.

Tropical Perennial Food Plants. Some of the tropical perennial vegetables will grow in part shade where there is good light but no direct sun. This makes the leaves on these groundcover plants more tender and lush, so give Sambung, Okinawa Spinach and Brazilian Spinach a try, they will be there for you all year round. Other Tropical greens to plant now are the Timor Lettuce, Kang kong, the Moringa tree, Aikiba and Sweet leaf shrubs all these have edible leaves with valuable nutrients and/or medicinal properties. Grow a hedge of Sweet Leaf, keep it to one metre high and harvest the lovely tasty high protein leaves all year round for salads or stirfrys. Carbohydrate root crops for the tropics, cocoyam, taro, cassava and sweet potato, so much to eat and you can grow it in your backyard.

What to plant now -Direct seed leaf amaranth, corn, beans, bok choy, gai choy, cucumbers, pumpkin, radish, melons, egg plant, tomatoes, kale, beetroot, carrots, brocolini, womg bok, beans and watercress.

Herbs - all the basil, tarragon, mints, garlic chives, coriander, parsley, chives, lemon thyme, thyme, oregano and spices turmeric, ginger, galangal, cardamom, Vanilla, Pandan and mother of all herbs.

Grow some flowers for the birds and bees, salvia, marigold, coleus, zinnia, sunflowers, basil all sorts, cosmos, dianthus, sun jewels, five in one herb, bees love flowering native plants, flowers on palms, bananas, native flowering shrubs and trees. Have Basil in the foot path garden and bees on it all day.

Tips on keeping Parsley alive through the wet season. Don't plant it in the ground, leave it in the pot and sit the pot on top of the soil, the roots will go into the soil, this stops the crown rot of the plant when it is hot and humid.

This goes for Comfrey too, even in well drained soil it usually dies off in hot wet humid conditions. Alternative is to grow one in a pot to replant when the cool weather comes.

Something eating your seedlings off - try diatomaceous earth, it is silica which has sharp edges and will stop beetles from eating your plants off at ground level. If not beetles try a Mollusc drench.

Some interesting You tube sites

Charles Dowdling (on Instagram as well) No Dig organic gardening in UK but what he does is very interesting. Lots of information. He grows to sell the produce all year and has some good tips for a market gardener." Even though it is in the UK just

switch the months around June is their summer whereas June is our growing season.

Geoff Lawton has lots of videos on his "Permaculture Institute Website"

SEED SAVING & SEED SHARING

In recent months it has been shown how important saving seeds from your garden has become.

There are groups in the north who have joined together to share home grown open pollinated seeds.

The Community Seed Exchange Mareeba has been sharing seeds within their group for the past few months in response to seeds becoming unavailable due to overwhelming demand.

They are onto their 6th mailout list. I enquired if the list could be posted in the Permaculture Cairns Newsletter, and I expected a complete knock back because of privacy issues, but this is their reply.

They have generously advised

"If you like to share seeds with the Community Seed Exchange Mareeba please contact Ulla via email pederulla@hotmail.com and we will add you to our mail out list. Please let us know what seeds you have to share and what seeds you are looking for. The next update is on Sunday the 28th June 12 noon.

Happy Gardening "

I would strongly encourage you to share your seeds with the group and see if they have seeds you would like to try.

By growing seeds from this area the plants become acclimatised

Carol Laing



Hello Carol,

We hope these lines find you healthy and well in these unusual times. Many thanks to the ones who kept in touch and welcome back to all others. We look forward to seeing you again, this has been a long break.

Since March our regular events have been suspended as a result of the COVID pandemic and accompanying restrictions. However, as restrictions are easing, we are resuming meetings with appropriate measures to ensure the safety of all attendees.

Please read this mail carefully to the end and seek clarification by email should you wish/need to.

As mentioned in May's BETWEEN THE HEAPS the Committee decided to have local

MERRY STIRRING

events celebrating the WINTER SOLSTICE on the 20th June all over the Tablelands and Coast.

In Atherton, Kuranda, Irvinebank (15mins out of Herberton), Malanda, Mareeba, Mossman and Ravenshoe we will be stirring 500 and Cow Pat Pit dedicating it to the Elementals for the healing of our Earth and Humanity in general.

Having small gatherings helps us to easily monitor the amount of people at each venue, therefore it is imperative that you reserve your spot if you wish to attend. The venues chosen fulfill the physical distancing requirements which are still in place.

You will be asked to declare you are in good health at arrival at the venue. Obviously, if you feel sick, please do not attend and let the host know. As usual you will have to sign in. The form will ask for contact and address details, please make sure to fill in legibly to abide by the current regulations.

We ask you to bring your own chair, mug and a contribution to the shared afternoon tea. Boiling water, tea, coffee and milk will be made available. Please bring the correct amount of cash in an envelope or/and use sanitizer after handling any money. To avoid handling cash you can choose to deposit into our bank account Biodynamics FNQ Inc., BSB:633 000 Account No.119469484. Use your name as reference.

These measures are taken to ensure our most vulnerable members can feel safe, but still allow us to meet, socialise and talk about biodynamics.

How does it work?

1. Decide you want to be part of this fun afternoon and reserve your spot by emailing to theseecretary@biodynamicsfnq.org.au, specifying the location you would like to go to and amount of people wanting to attend. We need to have your reservation by Friday, 12th June. Instead of everyone buying preparations and having them sent out, we have set a \$15 attendance fee (per household) which covers exactly the costs of the preparations. You will use a small amount on the day, the rest is for you to keep repeating the stirring procedure at home on another occasion.

2. We organise the preparations for you unless you told us that you have your own, they will be at your hosts awaiting you.
 3. We send you a confirmation with your hosts address details and specific requirements for the chosen venue if there are any.
 4. You bring your chair, mug, afternoon tea contribution, money, 20 l bucket with lid, 1 or 2 l glass bottle with lid, and a lot of positive vibes.
 5. Arrive by 2 pm for tea and welcome, 2.30 pm we start stirring, have interesting discussions and by 3.30 pm we are spraying out the stirred 500 at the host's place.
 6. Goodbye and at arrival at home, spray 500 at your place. Feel happy and fulfilled.
 7. Next morning: You stir 501 on its own or possibly with seaweed tea for an hour. Alternatively use the bottle prepared the day before. Spray it out early morning. You did a great job improving energies all around the place.
 8. Keep on using preparations and you will be amazed
- The Committee of Biodynamics FNQ. Inc.

Upcoming Events:

Saturday, 20th June - 2 pm to 4pm
Winter Solstice Merry Stirring, various venues
Sunday, 19th July - 10 am to 3 pm
Mossman, Starting and Managing Bees

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This article is about the USA and what they are doing with the compostable waste. The Cairns Regional Council composts our waste but it is interesting to read about the benefits of composting and perhaps it might get you to do it at home.

REDUCING FOOD WASTE: COMPOST PRODUCTION RECOVERS NUTRIENTS FOR SOIL BENEFITS

By Debra Atlas

When you consider our nation's health, the quality of our food, its decreasing nutritional value and the increased degradation of our farmland, it's not a pretty picture — and the challenges related to these issues keep growing.

By 2050 the world's population will likely reach close to 9 billion people. To feed everyone, we'll need to globally produce more food. Yet, almost 40 percent of food currently produced ends up in landfills.

According to ReFED, a collaboration of over 50 business, nonprofit, foundation and government leaders committed to reducing food waste in the United States, American consumers, businesses and farms spend \$218 billion per year growing, processing, transporting and disposing of food waste.

Food waste is a global problem. The 2017 Food Sustainability Index ranks 34 countries from best to worst. In France, No. 1 on the Index, supermarkets don't toss food approaching its sell-by date; they must donate it to charities or food banks. This has lowered the country's annual wastage to 1.8 percent of its total food production. Germany, Spain and Italy, which follow close behind, also scored high with agriculture-related conservation and research and nutrition education.

The United States, however, falls into the third quartile, ranked 21 out of 34 for food sustainability. But this is a story of possibilities — one where innovation is helping create solutions to a problem that could dramatically affect our future. If we are to meet the food needs of an increased

population sustainably, we must do things differently. Composting — using food scraps to add nutrients to soil — is a good first step.

According to *BioCycle Magazine*, around 200-300 cities have food composting programs in place. The San Francisco Bay area's urban compost collection program, possibly one of the largest in the country, began in 1996 to reduce landfill disposal and turn food scraps into compost. Other U.S. cities with compost-collecting programs include Denver; Austin, Texas; Portland, Oregon and New York City.



Green waste used as part of a mixture of ingredients for compost.

BENEFITS OF REDUCING WASTE

The Harvard School of Public Health said reducing food waste by an estimated 15 percent could feed more than 25 million Americans annually. You would think this would be a driving incentive for waste reduction. But how does food collection figure into soil health? Simple.

The quality and health of the soil determines the quality and yield of the crops planted in it. “You can view compost as a food,” said Bob Shaffer, agronomist, soil scientist and 40-year farmer. “It’s a high-quality, diverse food that’s able to give you health.”

Shaffer, who works to improve soil health by increasing organic matter and nutrient levels on large and small farms around the world, says there are many stresses on soils and our food systems.

Degraded soil comes from a lack of calcium, nutrients and food for the microorganisms that plants need in order to grow. To turn soil “soft” again, says Shaffer, requires organic management, tillage management and nutrient management. “The soil needs to be fed,” he said. “The soil is the big prize.”

Composting waste is crucial to soil health. Shaffer says all the organic matter available should be applied at the farm level. He is dismayed at the sheer volume of recyclable material found but not used on farms today.

Every ton of collected food scraps yields 1 to 1½ cubic yards of compost — approximately 1,000 pounds per cubic yard.

Composting reduces the starting material from 50 to 60 percent. The 40 percent of food we waste each year presents a huge opportunity to revitalize degraded farmland.

The question we should be asking, said Shaffer, is: What can we recycle and/or compost?

“There’s so much organic matter that goes to waste. We should recycle all these materials and put them to use. We need zero waste and all the materials brought to the farms to be composted and returned to the soils that are providing food to the cities. If it doesn’t come from the city to the country to be composted, we’ll continue to have degraded soils.”

Composting processes vary, including:

- Static aerobic compost.
 - Thermal compost, which employs heat to create compost.
 - Vermicomposting, which uses worms to turn food scraps into nutrient-rich compost.
- Whichever process is used, Recology, a San Francisco-based integrated resource recovery company, knows that adding compost to soil offers a cornucopia of benefits:
- Keeps materials out of landfills, saving landfill space and reducing landfill emissions such as methane and other potent greenhouse gases.
 - Returns nutrients and minerals to farms to keep soils fertile.
 - Promotes microbial activity in topsoil, which switches on the soil food web, making micronutrients available to plant roots and discouraging diseases.
 - Helps protect topsoil from erosion.
 - Saves tremendous amounts of water. Good quality compost is 50 percent humus by weight, and humus is a natural sponge that attracts and retains water. This minimizes the need for irrigation and artificial fertilizers, which could have harmful effects on the world’s oceans and other waterways. Building up the water-holding capacity of soils can help farms weather droughts. If you increase organic matter by 1 percent on 1 acre of land by adding compost and employ eco-farming management strategies, we can save 16,500 gallons of water per acre per year.
 - Sequesters carbon deep in the soil, especially when used to grow cover crops which shade topsoil.
 - Creates three times more jobs than landfilling.
 - Helps cities make progress toward achieving zero waste.
 - Helps clean up contaminated soil by binding heavy metals and preventing them from migrating to water resources or from being absorbed by plants.
 - Turns food scraps and plant cuttings into fruits, vegetables and even fine wines.
- Shaffer says education is crucial for more people and farmers to get on board with composting. It’s about educating municipalities and individuals who buy our food and then don’t recycle it about why we want it as compost, he said.
- “We lose a lot of opportunity with consumers who don’t participate in food recycling. It doesn’t make sense to them until it’s explained.”

COMPOSTING IN ACTION

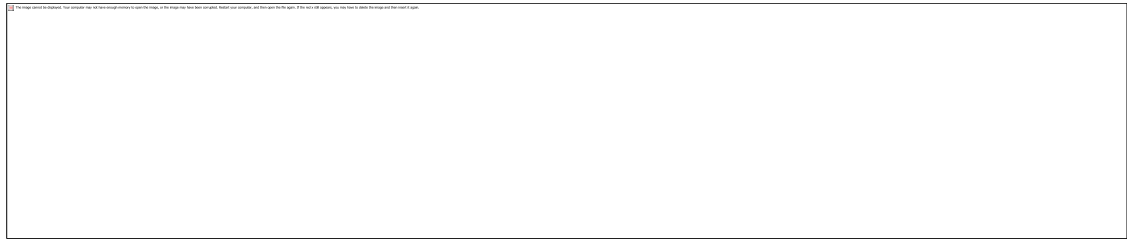
In 2017 Baltimore’s National Aquarium partnered with Colorado-based Eco-Products (a certified B Corporation) to help turn guests’ trash into rich, fertile soil rather than have it end up in local landfills. The aquarium replaced all its conventional disposable plastic foodware products with reusable, compostable or other sustainable choices. These get turned into nutrient-rich soil and mulch for area farms, gardens and for the waterfront park that surrounds the aquarium. Companies like ChicoBag and Sierra Nevada Brewery incorporate on-site composting to reduce food waste. Napa Valley California’s award-winning Chateau Montelena Winery has been applying

compost and planting cover crops in their vineyards for almost 20 years. “And they have healthy, consistent crops,” said Shaffer.

One of the largest onion growers in the country is based in King City, California. Composting is a big part of his operation. The grower says he wouldn't grow onions without it, and he uses his onion processing waste to give back to the soil.

Shaffer works with large banana growers, rice growers, grape growers and tomato processors who recycle their organic matter into compost for their operations. Shaffer worked with General Mills to set up an operation in northern California where they process the 2,500 acres of organic tomatoes they grow. They process the tomato skin and seeds from their pulped canned tomatoes.

No images? [Click here](#)

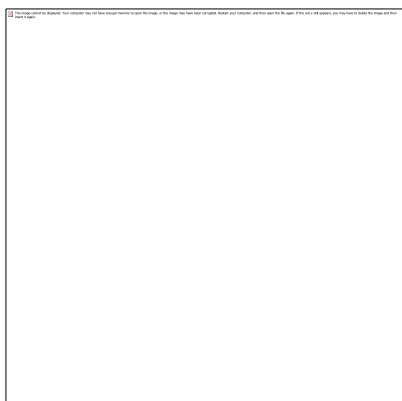


We can stop global warming - the solutions are right here

Every day at Project Drawdown we are asked, "**What can I do to solve the climate crisis?**" The answers are all around us. Solutions to climate change are in our daily lives right now. And we have no time to lose putting them in motion.

Which solution surprises or inspires you? Who would benefit from knowing about it? Use the icons on each solution's web page to share a solution via email to an elected official, policy maker, or business leader. Share your favorite solution on Facebook, Twitter, and dozens of social channels. Add the hashtag **#ClimateSolutions** for greater reach.

On this landmark Earth Day, you CAN make a difference. Explore the sectors below with 86 solutions that are in place now. Find one that moves you and start working on it today!

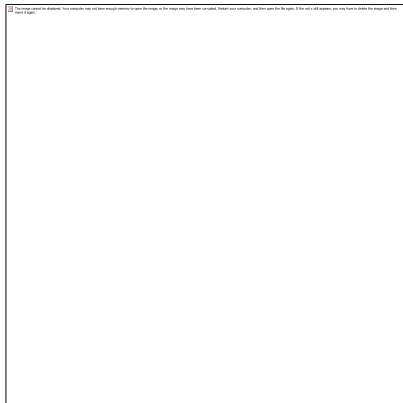
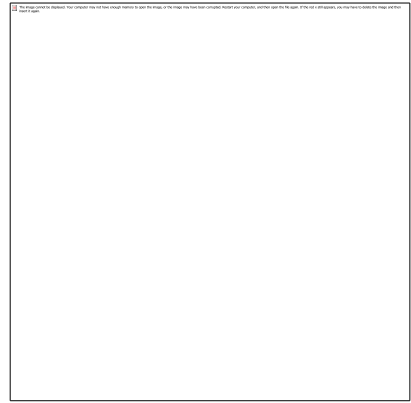


Electricity

It's not surprising that with 32 solutions, [Electricity](#) is our largest solution sector. In addition to [insulation](#), [wind power](#), and [LEDs](#), you'll find innovations such as [dynamic glass](#) and [microgrids](#). Find and share your favorite solution in the [Electricity](#) sector, then do what you can to put it in motion.

Food, Agriculture, and Land Use

From [regenerative farms](#) to [plant rich diets](#), [rice fields](#) to [peatlands](#), this sector contains 14 solutions to climate change. As we grow, prepare, and eat food, we in turn must [nurture the land](#) from which it comes. Visit the [Food, Ag, and Land Use](#) page to find the most impactful places to start.

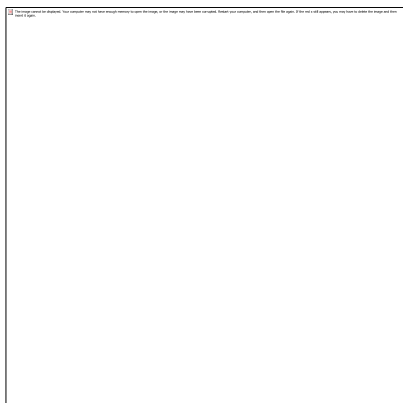
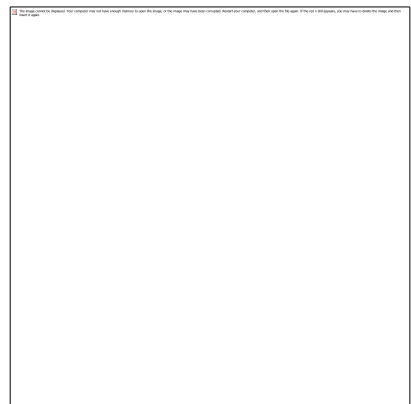


Industry

Materials, waste, refrigerants, and energy efficiency make up the [10 solutions in the Industry sector](#). Builders and manufacturers are already implementing solutions like [alternative cement](#) and [waste-to-energy](#). Check out the [Industry sector](#) page to see where to reduce even more of Industry's heat-trapping emissions.

Transportation

The dramatic decrease in greenhouse emissions resulting from recent reduction in travel shows us how effective the [13 Transportation solutions](#) are. We must keep building on solutions like [bicycle infrastructure](#), [efficient aviation](#) and more to make the current drawdown permanent.

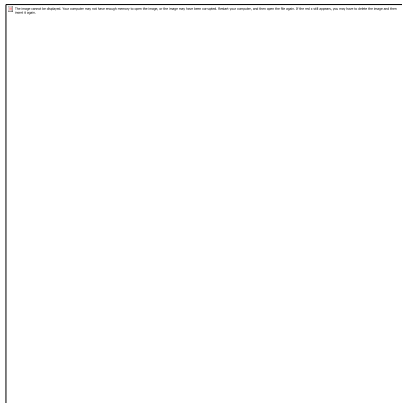
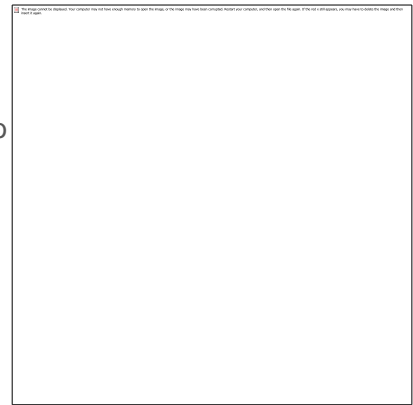


Buildings

The [16 solutions in the Buildings sector](#) orient around energy efficiency, energy sources, and refrigerants. [Green roofs](#), [building retrofitting](#), and [net-zero buildings](#) all contribute to reaching drawdown. Which of the solutions can you act on in the buildings where you live and work?

Land Sinks

Plants and healthy ecosystems have an unparalleled capacity to absorb carbon through photosynthesis and storing it in living biomass. [Lands Sinks](#) now have their own sector in Project Drawdown's research. [Peatland protection](#) and [regenerative annual cropping](#) are just 2 of the 22 solutions you'll find in this sector.

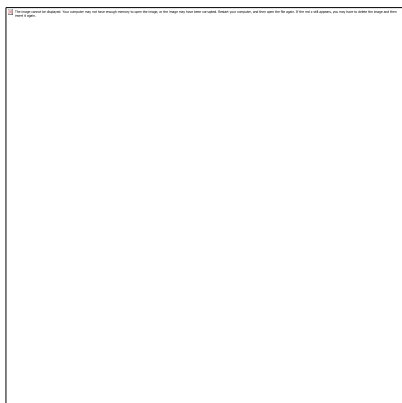
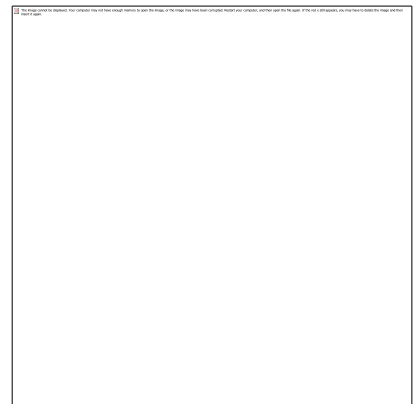


Coastal and Ocean Sinks

[Oceans](#) absorb and redistribute heat and carbon, taking up 23% of the carbon dioxide emissions in the atmosphere each year. Solutions in this sector focus on [coastal wetland protection](#) and [restoration](#). [Learn more](#) about protecting these vital ecosystems.

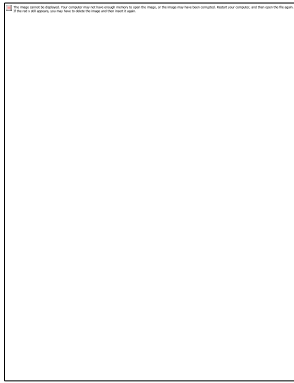
Engineered Sinks

[Engineered sinks](#) address how carbon is captured and stored once it is removed from the atmosphere. Our future research will address technologies such as "direct capture." For now, the [production of biochar](#) retains its place as a top solution due to its ability to store carbon and enrich soil.



Health and Education

Our research captured the world's attention by showing how [education and family planning](#) influence both climate and society. Our updated research shows how [Health and Education](#) have a compounding effect, with greater climate impacts in the future.



The Drawdown Review

Have you downloaded your [free copy of *The Drawdown Review*](#)? This new summary includes updates to our climate solutions research, and introduces the new Drawdown Framework. [Download your copy](#) today.

Our Events Are Now Virtual

Many [upcoming presentations](#) by the Project Drawdown team have moved to virtual, live-streaming platforms. Some have even been opened to the public for free viewing. [Check out our events calendar](#) to see what's coming up. See you on Zoom!



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