

NEW EARTH CATALOG

access to future



Spring 2022

\$5

PURPOSE

The Internet is overflowing with information. You can find a lot if you know what to search. But if you don't search anything, you will find a lot that you don't need (and unfortunately seem to like). What is it that we really want? What do we really need?

*Concentrating on latest economic discussions, how to create a greener future and sustainable alternatives. Reducing our consume in general, reducing our ecological footprint. Reusing instead of producing. Recycling, upcycling instead of wasting. Nature gives generously, use it wisely. **Be grateful.***

In a world where we can get anything, take only what you really need. In return you will find yourself. Concentrating on the neccessary, essential, beautiful.

*„We don't have to engage in grand, heroic actions to participate in change. Small acts, when multiplied by millions of people, can transform the world.“
- Howard Zinn*

FUNCTION

To get back to the essential. To recognize the important. To make a change in climate change. NOW.

An item in the NEW EARTH CATALOG is listed if it is deemed:

- 1) Of good quality
- 2) Produced at fair conditions
- 3) Produced or used resource-saving
- 4) Little or zero waste / pollution creating

An article is listed if it is deemed:

- 1) Of good quality
- 2) Relevant and useful for ecological education

Wintersemester 2021/2022
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Sustainability

Here’s why we need climate protests: even if some think they’re annoying

The last few years have seen a surge in climate protests. From Turkey and Germany to the US, Australia and countries across Africa, local activists have fought corporate actions that threaten to destroy precious green space and accelerate global warming.

Consider the protest march that took place in Glasgow on 6 November 2021, during the UN climate conference COP26. As a huge range of different groups marched together to demand action on global warming, they waved banners drawing attention to issues such as greenwashing, housing crises and trade unions.

Through taking part in this march, protesters may have begun to see themselves as belonging to a wider, shared identity – one that specifically stood in opposition to climate destruction. This identity was reinforced by songs and chants, such as the words “power to the people because the people have the power”, that rippled out across groups along the march route.

This inclusive identity, based on fighting inequality, could also be seen in the solidarity between climate protesters at COP26 and binmen striking for better pay.

Long-term benefits
People who reduce their plastic use, use low-carbon transport like bicycles and eat a plant-based diet are often called “environmentalists” as a result of their behaviour. Interestingly, this relationship could also run in reverse.

Perceiving yourself as part of the “environmentalist” social category – by identifying the environmentally friendly beliefs you share with that group – could help drive sustainable behaviour, crucial in the face of climate change.

However, for these behaviours to really have any influence, our research suggests they need to endure over time. For that to happen, it’s important to have the opportunity

to express your new shared identity in different social contexts.

This can be achieved by forming relationships with others who consider themselves part of an environmental community, increasing the prominence of environmental issues in your life and therefore the chance that your sustainable behaviour will continue behind closed doors.

Based on ours and others’ research on psychological change and collective action, it seems that what benefits protesters also benefits society. When protesters encourage reducing consumption and becoming more climate-conscious, we all – along with the environment – profit from it.

Taking action
Some have suggested that protests can alienate people through, for example, actions which disrupt daily life (creating traffic jams receives particular criticism). And politicians have called protests counterproductive, while emphasising that “real work” on climate happens within conferences and boardrooms.

But we’d argue that protests are an effective tool, even when they’re disruptive. Seeing others take action

increases our hope for the future as well as offering an opportunity for vicarious empowerment – motivating people in other places to take similar action, even when they haven’t physically participated in the original protests.

By seeing protests, directly or through media, bystanders can come to identify with protesters, possibly increasing their

belief in their own power to cause social change.

This can create a positive feedback loop. Researchers have found that emissions decrease in US states with large numbers of environmental protests. Polling from YouGov also reported a significant rise in the number of British people concerned about climate following Extinction Rebellion’s early 2019 protests in London.

Protests can also help achieve policy change if the policy being protested is already under public discussion – and if protesters have support from politicians. And in countries where politicians are elected based on public opinion, protests

that increase environmental awareness can encourage change through altering people’s voting habits.

For example, it’s likely that climate protests across Germany helped in part to double the number of voters for the climate-conscious Green Party from 2017 to 2021.

Protests have even managed to change court decisions. Forest occupations in Sweden and Germany resulted in courts saving the forests from destruction (for now). The value of protests should not be disregarded: they could have a larger effect than events behind closed doors. By seeing protests, directly or through media, bystanders can come to identify with protesters, possibly increasing their belief in their own power to cause social change.

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Sara Vestergren, Samuel Finnerty, Yasemin Gülsüm Acar
December 16, 2021

Electric cars aren’t enough to hit climate targets: we need to develop better public transport too

Transport is responsible for 24% of energy-related carbon emissions worldwide. Half of those emissions are from carrying goods and services, and the other half are from carrying people from A to B – also known as “passenger transport”. Passenger transport has a huge impact on our surroundings, and it’s one of the biggest factors in determining where we live and work. It can be bumper-to-bumper LA traffic, bike-filled Danish cities, Japanese bullet trains, buzzing Vietnamese mopeds, taxi ranks lined with India’s famous three-wheeled rickshaws, or bustling London subways.

Introducing electric vehicles (EVs) on a massive scale has often been framed as the solution to reducing passenger transport emissions – witness the UK’s plans for all new homes and upgraded buildings to have EV charging points from 2022.

However, recent research from the US has shown that the electrification of cars alone will not be enough for the transport sector to reach ambitious global climate action targets aiming to prevent more than 2 °C of global warming.

In addition, a population that continues to depend on cars poses significant problems for growing cities. With urbanisation on the rise and space at a premium, we must reduce car ownership in cities if we are to keep them as affordable and accessible as possible. Huge amounts of land which could otherwise be used to house people or be dedicated to nature are still reserved for roads and car parks.

Although EVs certainly help address increasing transport emissions, simply focusing on replacing conventional cars with EVs is a missed opportunity for countries to develop alternative means of transport beyond car dependency.



of single-occupancy cars, for example, we can use buses, trains, bikes, scooters, skateboards or walking paths. Across the world, we can see exciting examples of how countries have managed to make this shift away from carbon-intensive car dependency.

The TransMilenio bus system, operating in the cities of Bogotá and Soacha in Colombia, is one of the largest of its kind in the world. Transporting between one and two million people daily, its broad range of stops, dedicated bus lanes, and affordable ticketing stations create an easily accessible service.

Increasing the uptake of active modes of travel is another way to encourage

Climate action funds – including the Adaptation Fund, a UN-backed international fund helping developing countries to adapt to climate change – are projected to reach £74 billion of funding by 2023. Much of this money is channelled towards sustainable infrastructure projects, which could help developing countries to build efficient and sustainable mass-transit systems.

The UN’s intergovernmental panel on climate change advocates for an approach to passenger transport planning called “Avoid, Shift, Improve”, which is adapted from a framework first developed in Germany in the early 1990s:

Avoid
“Avoid” refers to reducing the need for transport in the first place. This involves planning new urban areas and redeveloping old ones to be as well organised as possible, so people will not have to travel far for their working, shopping, education and recreational needs. While years of investment into roads have made it very difficult for some cities to move away from car use, the future is still unwritten for many of our growing cities.

This approach also involves connecting homes and rural towns to the internet so that people can easily and cheaply work from home, leaving road space free for people – like doctors or teachers – who cannot.

Shift
“Shift” means switching necessary travel to more sustainable, active and higher-occupancy modes of transport. Instead



this shift. E-bikes are among the fastest growing types of transport in China. The motor-assisted travel encourages cycling longer journeys in hilly areas, warmer areas and among people who are less fit. Studies from Sweden and Norway show that cyclists who switch from conventional bikes to e-bikes increase their number of journeys and the distances they travel on



average for each journey.

Recently, residents of Berlin voted to expand car restrictions in the German city to cover 88 sq km of the city – a proposal which

would create the world’s largest car-free urban zone. Actions like these can address the safety concerns of pedestrians and cyclists, who fear navigating alongside fast-moving, heavy vehicles, by providing segregated active travel routes. Importantly, researchers have noted that without measures to restrict car use, other measures to encourage the uptake of public transport, walking and cycling have little impact.

Once unnecessary travel has been cut from things like poor urban planning and employer policies requiring workers’ presence in offices, and once safe public transport systems or active travel options have been provided, we can focus on making the vehicles we currently have more sustainable.

Improve
Although fuel efficiency has slightly reduced the fuel consumption per kilometre of car transport, passenger transport demand continues to grow – meaning that overall, increased emissions from passenger transport outstrip efficiency reductions. As a result, the “improve” part of the UN’s framework involves switching bus, rail and car transport from fossil fuels to electric.

The key to reducing passenger transport emissions is enabling access to and use of electric cars only where there are no other reasonable travel options. If we do this, we have a chance to end car dependency while still helping as many people as possible to travel.

Vera O’Riordan
November 22, 2021

Five ways to kickstart a green recovery



With a recession looming, it’s time to come up with a good recovery plan. There is no point in simply reinventing an outdated economic model, and recent research by economists and health experts has underlined how instead a “green recovery” could benefit not just the climate but also human health and prosperity.

Indeed, many business leaders are already calling for action to reverse nature loss, a strengthened net-zero carbon goal, and a more circular economy. If this sort of mission is to be successful, it will need some quick wins in order to build support and participation among citizens and like-minded investors. So here are five proposals that could kickstart a green recovery from COVID-19:

1. Better buildings
People were in lockdown for weeks and months and are fed up being confined to their homes. A green recovery should start here. That means mass refurbishments to improve insulation, replace windows, reduce air leakage, improve heating (and cooling) systems, and switch fuels from coal, gas and oil towards renewable energies such as wind and solar.

We could make better use of roof space for new housing, solar energy, water storage, gardening and more. There are some issues with these green roofs: risks of air pollutants, increased moisture and emerging biohazards. But doing this well



and in time will create many jobs.

2. Better access to healthy food
Food insecurity has been rising, and obesity has been an aggravating factor in COVID-19 mortalities. Healthy diets are proven precautionary measures, supporting immune systems along with improving fitness and robustness.

To encourage people to consume more fruits, vegetables and cereals, the government could consider lowering the VAT rate for organic food and healthy suppliers. To make such food more appealing, it could also set up form of “traffic-light” labelling that displayed the endorsement of NGOs and confirmed good production conditions. Setting up schemes and organisations focused on innovations in supply and combating waste would create

jobs and make food supply chains more resistant to any recurrent crises.

3. Smart mobility
There is a risk that transport will simply return to the previous norm of traffic jams and air pollution. If an economic recovery is to be green, it will be essential to maintain flexible working schemes with less commuting, even after most workplaces reopen.

Research by academics at the UK Centre for Research into Energy Demand Solutions suggests that the best bet for reducing carbon footprints is reducing car use and moving towards “smart mobility”. This means carpooling, car sharing and bike sharing programs, and well-developed public transportation.

Now is the time to reclaim our cities from motor cars. Any green recovery should include a vast acceleration of biking infrastructures with interconnected cycle highways, safe locking stations, smart renting schemes, recharging infrastructures for e-bikes and e-scooters, and extended walkways. Smart mobility apps can help people link up different modes of transportation. Cities like Copenhagen and Amsterdam have demonstrated all this is perfectly possible.

4. Green our neighbourhoods and cities
Maintaining and improving urban green space should now become a top priority. Initiatives like Nesta’s Rethinking Parks or the Heritage Fund’s Future Parks Accelerator are designed to find ways of managing and funding parks and open spaces across entire towns and cities.

People and businesses could renovate



derelict areas and recreate public life, with support from local authorities and a governmental green recovery programme.

Doing all this will help adjust development planning by shifting priorities towards longer-term sustainability.

5. More resilient infrastructures
Despite \$2.5 trillion a year already being spent on infrastructure projects worldwide, more investment is needed to ensure access to housing, mobility, services and greenspace for all in the new abnormal.

Take water, for instance. A green recovery could be boosted by building a new generation of decentralised water tanks, shared between neighbouring apartment owners. This would be better for the environment as rainwater is preserved and could be used for gardening and cleaning outside the home. Meanwhile so-called “sponge city” initiatives can reduce the risk of urban floods by increasing green spaces, restoring wetlands and using permeable new construction materials to absorb rainwater and delay runoff.

The above actions would complement efforts to transform the energy system away from fossil fuels and towards a system based on renewable generation, with decentralised “micro grids” and the ability to cope with a surge in demand from electric vehicles.

Raimund Bleischwitz,
June 23, 2020

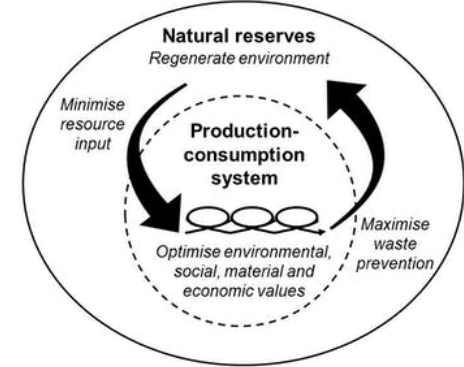
What a sustainable circular economy would look like

More than 100 billion tonnes of materials entered the global economy in 2017 to generate power, build infrastructure and homes, produce food, and provide consumer goods such as clothes and phones. There are now more phones than people on the planet, and the amount of clothes purchased is forecast to reach more than 92 million tonnes by 2030.

Some estimates suggest that 99% of the things people buy is discarded within six months of purchasing without the material being recovered. That’s because we have what you might call a linear economy. It works by extracting resources and manufacturing products from them, that are sold to people and then generally disposed of after a short period of use.

But the COVID-19 pandemic has upended normal economic activity, dipping

the global economy into what may become the worst economic downturn since the Great Depression. Rather

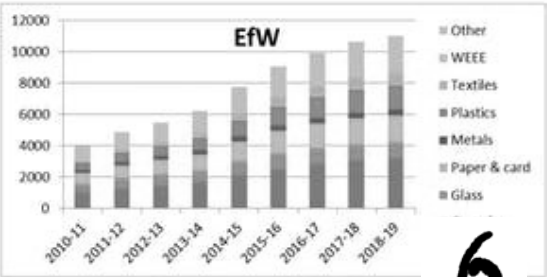
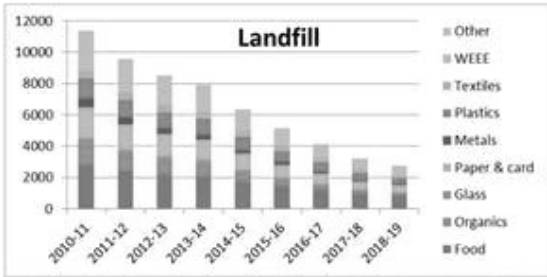


than try to revive a system that’s inherently wasteful, the European Commission has vowed to build a sustainable circular economy post-pandemic.

The idea of a circular economy is simple: to make better use of resources, close loops of resource flows by fully recovering materials instead of wasting them, and prevent waste and pollution by better design of products and materials and keeping them in use for longer.

Sounds great, but how might it work? Our research programme supported the implementation of a circular economy in the UK and we discovered that three broad types exist.

1. Closing loops with energy from waste
The first strategy to “close” loops of material flows is energy from waste (EfW) – burning discarded material to generate electricity. This has replaced landfill as the main processing method for household waste in the UK. Local authorities in the UK collect 26 million tonnes of waste per year, of which 11 million tonnes goes to EfW while three million tonnes ends up in landfill. Between three to six times more waste plastic, food and textiles go to EfW than are recycled. One and a



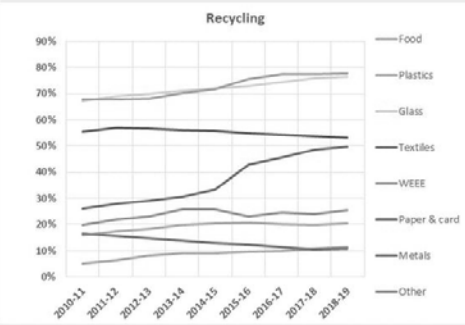
half times more paper and card go to recycling as go to EfW.

Burning materials that could be recycled means everything invested in them is lost, such as money, energy, water and labour. Materials such as nutrients in food and fibres in textiles are then replaced by virgin resources, perpetuating the unsustainable impacts of resource extraction.

Although a recent inquiry suggests EfW may have some social benefits – like providing heat to fuel-poor households – it creates fewer jobs than recycling, reuse, repair and remanufacturing and releases greenhouse gases.

But investment in the UK favours EfW. It’s the path of least resistance, requiring hardly any changes to supply chains or how goods are consumed and disposed of. The UK is practically heading for this pseudo circular economy that is effectively unchanged from the linear take-make-waste model, fitting in with the prevailing short-term economic thinking and a singular focus on GDP growth.

2. A circular economy based on recycling
One step up from EfW is the recovery of materials – recycling. In England, the volumes of municipal waste and the proportion that is collected for recycling has remained more or less unchanged (42%) for the past ten



years. Some recycling rates have gone up (eg. from 5% to 11% for food) but others have dropped (56% to 53% for paper and card).

Textiles are particularly poor. The average UK citizen buys 26.7 kg of clothing annually – the most in Europe – and one million tonnes are discarded each year in England. Most binned clothes are incinerated, and increasingly less are recycled (from 17% to 11% since 2010). The recovered fibres are normally suitable only for lower-value applications, such as carpets and insulation. New clothes rarely contain more than a few percent of recycled material, sustaining demand for virgin natural resources.

In a circular economy that relies on recycling to close loops, people aren’t forced to change how much stuff they buy, but manufacturers and waste management companies would change more radically. For example, drinks bottles often use different plastics for the body, cap and label. If these mix in the recycling process they reduce the quality of the recycled material, but separating them is awkward. All products should be redesigned to ensure they are recyclable.

Manufacturers should use more recycled material in new products too, creating markets for recovered materials. Massive investment in recycling infrastructure would be required though. Just to meet plastic packaging recycling targets, more than 50 new recycling plants would be needed in England.

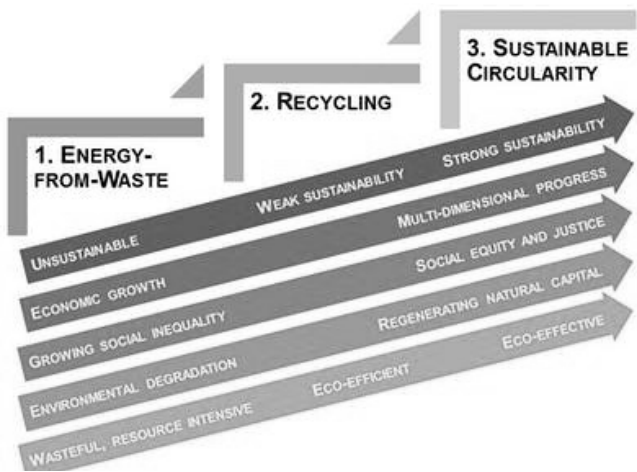
Although recycling normally is less energy-intensive than processing virgin resources, it still uses a lot of energy which produces carbon emissions. Even if all recycling used renewable energy, the new infrastructure would require vast amounts of virgin materials to be built. In developed countries the total amount of materials

within the economy has to be reduced.

3. A sustainable circular economy To achieve a truly sustainable circular economy, consumption and production practices would need to change together. A sustainable circular economy involves designing and promoting products that last and that can be reused, repaired and remanufactured. This retains the functional value of products, rather than just recovering the energy or materials they contain and continuously making products anew.

We have to do more with less material and consume responsibly. For example, people in the UK should buy fewer new clothes and wear what they already have more often. Repairing and restyling our favourite clothes can also help to use them more and waste less.

New ways of consuming opens up opportunities for circular economy business models, such as leasing clothes and producing things that people need on demand only. Business models based on reuse, leasing, repair and remanufacturing could generate four times more jobs than waste treatment, disposal and recycling. They generate local economic activity, helping to strengthen relations within communities.



A sustainable circular economy represents a new economic model in which the aim shifts from narrow GDP growth to “multi-dimensional progress” – the broader strengthening of environmental quality, human well-being and economic prosperity for current and future generations.

Only such a circular economy could potentially regenerate the environment.

How we use resources has transformed our economy and society in the past. A circular economy offers us a chance to deliver sustainable benefits for the future. Let’s not waste it.

Anne Velenturf,
May 6, 2020

I spoke to ‘minimalists’ to find out why they are giving up their personal possessions

I recently spoke to a man named Adam who told me that every object he owns could fit in one of Ikea’s famous shelving units. He owns two pairs of jeans and T-shirts in just three colours. He is so concerned with the ethical and environmental impacts of his possessions, that he once spent two months researching a pair of jeans to buy. Then when he finally took them to the till, he didn’t buy them as he noticed a tiny square of leather on the back.

Adam is a “minimalist”. Minimalism is an increasingly popular lifestyle choice that involves voluntarily reducing the number of possessions owned to a bare minimum. It is based on the premise that “less is more”, as reducing physical possessions is seen to make way for the important non-material things in life such as personal wellbeing and everyday experiences.

The term minimalism surfaced after the 2008 financial crash and has become popular in the US, Japan and Europe over the past decade. Figureheads have emerged, such as US-based Joshua Fields Millburn and Ryan Nicodemus who have released two feature-length films about minimalism on Netflix, and state on their website that they “help over 20 million people live meaningful lives with less”.

Intrigued by the rising popularity of minimalism, I started researching minimalist, books, online content and podcasts. As an academic interested in fashion and sustainable consumption, I also wanted to know about the main motivations and values of minimalists, and how it played a part in people’s everyday lives.

To find out more, I conducted in-depth interviews with 15 people across the UK who defined themselves as minimalists. Some lived in homes with relatively few possessions and others could fit all their

possessions in just a few storage boxes.

Why minimalism? The people interviewed explained they were mainly minimalists due to the personal benefits it provides. This includes being able to travel and move house easily, having more time (as they spend less time shopping, cleaning and repairing their possessions) and feeling happier (due to having less stress from clutter and a firmer control of their personal finances due to less shopping).

Some discovered minimalism later on in life and had big clear outs of their possessions. Others decluttered occasionally and some never decluttered at all, explaining that they had never accumulated a lot of possessions, having always had minimalist tendencies before the term even emerged.

Many of the minimalists were concerned about decluttering and issues of waste and landfill. Those who had decluttered didn’t mention throwing things away. Instead, they tended to sell on higher value items and gave other things away to charity shops, which they saw as more convenient and they liked the idea of another person being able to find value in the item.

A tractor drives over a landfill site, gulls fly above Maximalism. Alan Curtis / Alamy Many of the minimalists strongly disliked shopping, consumer culture and materialism. Some said they didn’t want to buy things in order to “keep up with the Joneses” and saw minimalism as a way in which they could avoid feeling like they had to. Also, some (but not all) of the minimalists were motivated to shop less in order to be more sustainable.

Everyone I interviewed reduced their possessions by trying to buy less and by repairing and maintaining what they already had. When they do buy things, they are very considered – questioning if they really need something carefully, avoiding impulse purchases, taking time to research goods (like Adam and his jeans) and trying to purchase less by buying “quality over quantity”.

A sustainable (non-)consumer lifestyle? Some of the minimalists were extremely motivated by sustainability and try to only buy second-hand products or new products that are sustainably and/or ethically made. Others saw not buying very much as a sustainable “by-product” of their minimalist lifestyle, rather than a main motivation. And some were not motivated by sustainability concerns at all.

However, minimalism still has largely sustainable outcomes, even if this is not always the main motivation. Practices like highly reduced and carefully considered consumption, or carefully choosing

what to dispose of to avoid things going into landfill, are clearly better for the environment than default disposable culture.

Regardless of their sustainability motivations, everyone I interviewed said minimalism made them happier. This perhaps explains its increasing popularity and also demonstrates its potential importance. By offering personal benefits and pleasures, minimalism may encourage more people to adopt a more sustainable anti-accumulation lifestyle – even if sustainability isn’t always the main intent.

Amber Martin-Woodhead
Febuary 25, 2021

Self-Sufficiency

Self-sufficiency in countries

The self-sufficiency of a system can be viewed as a feature that allows a particular system to exist without the help of other systems. However, this is an ideal-type of definition, one that it is almost impossible to find if we escape the theoretical realm of explanation. You might think, planet Earth is a self-sufficient system, because all the resources we need are here, right? But, what if there was no Sun, for example. There would be no light, and no light means no photosynthesis of plants, which means no food for anyone.

Interdependence Vs. Self-Sufficiency Now, let us imagine that the Sun will not run out of hydrogen in the next 5+ billion years, as the scientists suggest. Would this mean that all countries do not have to worry about the production of food? Not at all. By today’s estimates, more than 15% of the global population is very much dependent on food that is produced somewhere else.

By definition, this means those systems (or those countries) are not self-sufficient. This story expands far beyond such a vital resource like food, and in today’s day and age, countries depend on each other, whether they liked it or not. It is estimated that by 2050, more than 50% of all the people in the world will depend on food production elsewhere.

Economic Input Vs. Economic Output There are some factors that allow us to create a scale to determine how self-

sufficient a particular country is. This always involves the time variable: for how long can one country sustain the well-being of its citizens, without depending on someone else? This largely depends on the balance between imported and exported goods. If a country wants to achieve economic self-sufficiency, it needs to have enough raw materials. Raw materials are referred to as input, and the production is labeled as output. The bigger the input of a particular country is, the greater the chances are that it can become self-sufficient.

Antonia Ćirjak
June 8 2020

20 Self-Sufficiency Hacks You Can Implement Right Now



In a perfect world, we’d all have plenty of time to prepare for emergencies and increase our self-sufficiency to be more resilient. The reality is that we have limited time available to devote to homesteading since our responsibilities to our families and employers get preference.

Fortunately, you don’t have to be totally self-sufficient to be better prepared to navigate challenging times. But you do need to be creative and open to new ideas. If you battle being creative, we share a few self-sufficiency hacks that you can follow right away.

Ensure Your Food Supply In difficult times, most people immediately think of growing a garden for food as a self-sufficiency hack. But if you don’t already have great soil and all the tools and seeds you need sitting around waiting to be used, this is not easy to do in an emergency. Luckily there are some great alternatives.

1. Join a CSA



Rather than racing to start a garden, form a relationship with a local farmer. Many farmers offer CSA's or community-supported agriculture shares.

Basically, you buy a subscription to fresh vegetables in the same way you would a magazine. You pay in advance, then each week for the duration of the CSA, you get a box of in-season vegetables.

Sometimes you even get more in your subscription that you can use in a week. By freezing any extras you can start to create a back-up food supply.

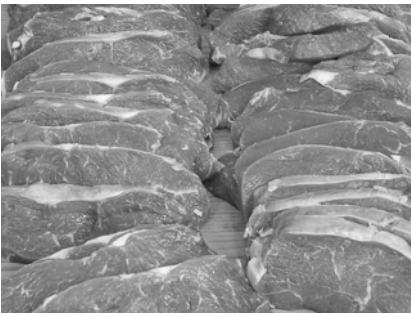
2. Find Farmer's Seconds
CSA members, ora farmer's best customers, will also be first on the list for farmer's seconds. These are the less than perfect vegetables and fruits that don't make it to market but can be perfect for canning or freezing.

These are usually sold at a discounted price. If you properly preserve them, they can keep for up to a year and save you from extra trips to the supermarket.

3. Order Meat in Advance
After starting a garden, lots of people also think of buying livestock. This is a great idea, except it takes several months to get livestock to maturity. Plus, you may need to build shelters, and find breeding stock, which can take a while.

In the meantime, consider ordering your meat from local farms in advance and in bulk as a self-sufficiency hack.

Primal Cuts

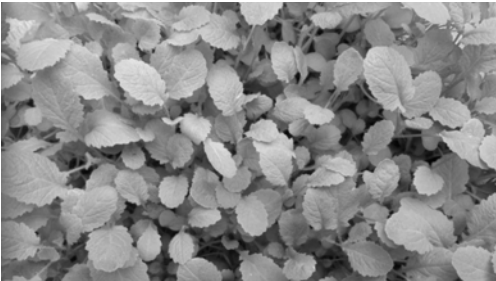


buy meat in bulk as a self-sufficiency hack
Livestock farmers who sell products at the farmers' markets are often willing to sell you half a hog or a quarter of a cow. You can get those portions whole and make your own cuts. Or you can still have them pre-packaged as you would usually get at the store. You'll just get bulk packages of all the cuts that came from the part of the animal you purchased.

Making large orders stocks your freezer quickly. Also, you can get things like lard and organ meat to begin learning how to use all the parts of an animal.

Whole Chickens
Chicken sellers also often take pre-orders on whole birds. Whole birds are usually a little cheaper than packaged cuts. Plus, since they are small, it's easy enough to do the cutting yourself. Those bones are awesome for bone stock too, which we explain in this article how to make chicken stock, and its benefits and versatility.

4. Grow Your Greens



Even though it will take you some time to get a full staple garden in place, growing some green things like sprouts on the counter, come and cut lettuce, and herbs is a great way to get started.

Mustard greens, cilantro, arugula, radish, and baby lettuce can be ready to harvest in four weeks. These won't contribute all your calories, but they can give you a constant supply of phytonutrients and vitamins.

Read our post on fast-growing vegetables to get started right away.

Cultivate Community
Self-sufficiency hacks isn't all about doing it yourself. It's mostly about creating mutually beneficial co-dependent relationships. For example, when you garden, you don't actually grow your plants. Nature does, but you facilitate the conditions to make nature's job easy.

5. Be a Good Neighbor
Similar to cultivating a garden, one of the best ways to improve your self-sufficiency in a hurry is to cultivate good relationships. Just like it's better to have your garden right outside your door, local relationships tend to be better for building self-sufficiency. So,

think about your near neighbors, your local officials, retailers in your area, and more.

Recently we had an abundance of cucumber and it was a pleasure sharing it with my neighbors. No doubt when they have an abundance of something or hear of a big bargain such as bread being thrown out, they will notify us in turn. Read this post on feeding bread to pigs.

Create Barter Networks
Money is about the least self-sufficient tool I know of. If you lose your job or can't report to work, and suddenly find yourself without cash, you'll know what I mean. But in real emergencies and even in daily self-sufficient life, having lots of money doesn't have to be a necessity.

If you set up barter networks within your local community then you can trade in other currencies such as time, skills, things you have extra of, and more.

6. Barter Your Time
For example, in Japan, time is so precious that people often set up care share networks. They trade off taking care of each other's kids and even elderly parents.

7. Barter Your Skills
Among my group of friends, we use our homesteading skills to provide shiitake mushrooms, eggs, and dairy products. Other friends do the wood-working, auto repairs, and tool repair. Even though we may not be able to meet up, we use email and designated drop-off procedures to continue sharing our skills.

8. Barter Your Extras



barter your extras as a self-sufficiency hack
I grow a huge garden. Most of my staple crops I keep and store. But non-durable things like lettuce and herbs, plus seeds, plant starts, and more, I love to share with others. Meanwhile, since I'm not much of a shopper, people in my network tend to pass along things to me like nearly new clothing, electronics, and other stuff I can't afford on my homestead budget.

We don't tend to do strict accounting when sharing goods because it can be hard to value you these things. In fact, we often just call our network a gift economy because we give each other what we have

to give. Remarkably, I often end up with exactly what I need when I need it.

During some emergencies, direct contact may not be possible. But drop locations and safe handling protocols can be established.

Think Outside the Box
One of the things that always amazes me when I am broke, or can't get the things through normal routes, is how narrow my thinking is. Toilet paper, for example, is scarce these days. So, people are suddenly coming up with all sorts of alternatives. Homemade bidets, reused cloth diapers and old t-shirts, the endless leaf supply, and more - all can be used as self-sufficiency hacks.

If you take a little time to get creative, you can find great solutions to meet ordinary needs without going to the store.

9. Pet Care Toys and Treats

People spend inordinate amounts of money on their pets. But in an emergency, pet care items might be scarce. Though we may think our pets are so picky that they can't adapt, the truth is they do, and usually within a week or two.

Make Pet Toys
Old shoes, knotted ropes, felted sweaters, and more can all be repurposed into pet toys to entertain your animals. See our post on how to repurpose a T-shirt for a couple of great ideas.

Make Pet Treats
Save the juice from those cans of tuna you are eating to aromatize the cooked high-protein eggs cats won't otherwise eat. Use the broth from your dinner to improve the flavor of non-preferred dog food or home-baked dog bones. Dehydrate leftover fish or grisly meat parts using your oven to create chew treats.

10. Kick the Cat Litter Habit
You can make your own cat litter by using all your junk mail, computer paper, newspapers and cardboard. Have your kids tear it into strips to keep them busy. Wet it, tamp it dry, then coat it with baking soda to absorb odors. Let it dry, then tear it into smaller bits pieces and use it as a litter substitute.

Medical Care
In industrialized countries, medical care is so easy to get, and many people have such low co-payments, that we often outsource even basic home medical care. We see doctors for things like colds, sprains, cuts, and more.

If you increase your medical knowledge to

be able to identify when you really need a doctor and when it's safe to self-treat, you can cut down on doctor visits while building your confidence.

11. Learn Herbal Medicine



herbal medicine can be an easy self-sufficiency hack
Reputable herbal medicine instructors will tell you clearly what you can and can't heal at home. They'll also often teach you how to use products you already have such as garlic, honey, alcohol, and more so you don't have to buy lots of expensive herbs to increase self-sufficiency.

Many herbal schools have a free introduction to herbal medicine courses available online. These are teasers to help you decide if that school of thought is right for you. Even if you don't pursue higher learning, those free basic courses can make you more capable of treating minor ailments at home, which is a perfect self-sufficiency hack.

Once you are all the wiser from your course, head on over to our post explaining how to grow a medicinal herb garden or even medicinal weeds you can forage in your backyard.

12. Learn First Aid
There are also lots of online first aid classes you can take to teach you how to address and triage wounds.

13. Stock Your Alternative First Aid Kit
Once you know the basics of first aid and home health care, then you can also stock your own first aid kit with homemade products. For example, the point of a bandage is to stop blood flow and protect a wound. Sterile t-shirt strips can work just as well as store-bought stuff in an emergency. Homemade salves can heal burns.

It's better to prepare some first aid supplies early, rather than during an emergency. So, take a look at what you've got, determine what you need, then find suitable substitutes using things you already have on hand.

We do have a review on survivalist emergency kits if you want to order one online to supplement the substitutes you created, although I admit, some of these kits are more suited to a Zombie Apocalypse than a virus pandemic!

Self-Sufficiency Hacks for Personal Care
Taking good care of yourself is one of the best things you can do to become more self-sufficient. You don't need memberships at fancy gyms or expensive products to be healthy.

14. Free Workouts
Some of the most effective workouts require no equipment at all. Squats, push-ups, sit-ups and more can all be done in just a few square feet of space and a couple of minutes of free time. Stretching too can be done anywhere without any tools except time.

15. Vitamin D



Indoor herb garden in a window
Getting enough sunlight is a critical component in long-term good health. Roll up your sleeves and let your arms soak up 15 minutes of sunlight so your body can make free vitamin D. Even just sitting in a south-facing window or stepping outside for a few minutes of light can make a big difference in how you feel.

16. Practice Aromatherapy
This is a lovely self-sufficiency hack - you don't need expensive essential oils or aerosolized diffusers to enjoy a wide variety of aromas. Just hit your spice rack.

Smell a different spice each day. Savor the aroma, describe it, think about where it was grown, its history. Recall happy memories that you have related to that spice.

Our sense of smell is often overlooked when we spend so much time on our computers staring at monitors. Taking an aromatherapy break using things you already have can

help you relax and escape even when you don't have the time or means for travel.

Value What You Have
Most of us have so much in our homes that might help us along the path to self-sufficiency already. We stuff things in closets, garages, and basements and forget that we even have them.

We also throw so much away that might otherwise be useful. These can all be tools to be used as self-sufficiency hacks.

17. Take Stock
A Repurposed t-Shirt as a self-sufficiency hacks
How about re-purposing old T-shirts into a cute little dress?
Before you worry about trying to start new projects or buying more things, take stock of what you have. Do a Marie Kondo style clean-up to organize what you have on hand. But rather than throwing out what you don't need, or that doesn't spark joy, re-purpose it.

Turn old clothes into cleaning supplies, curtains, even pant leg planters. Random containers can be drilled with drainage holes and used as pots. Things you can't be used can be bartered among your community.

18. Trim the Trash
Single-use plastics can have a new life if you clean them. No bread bag leaves our homestead without being reused multiple times to hold leftovers, our own home-baked bread or to insulate plants while they are germinating.

An easy self-sufficiency hack is to turn tin cans into scoops for garden supplies or even kitchen supplies like beans and flowers that are bought in bulk.

19. Compost like Crazy
If you aren't already composting, there's no time like the present. All that paper you are putting into the trash can be used as your browns. Kitchen scraps are your greens. Even if you don't use it, compost is garden gold and can be bartered just like other items.

Our Last Self-Sufficiency Hack – Gratitude

being grateful is the last self-sufficiency hack
My final tip was inspired by a friend. In tough times, her family has a morning gratitude conversation. They share the things they are grateful to have rather than focusing on what they don't have.

11 **20. Focus on the Positive**
My mom grew up dirt poor. But she didn't know it because



her mother never talked about what they didn't have. She made a big deal about what they did have.

If you focus on all the things you don't have or can't do, you'll be miserable. If you instead celebrate what you are capable of and can do, you'll feel a sense of accomplishment.

A large part of self-sufficiency hacks is simply letting go of unnecessary wants to make time for meeting real needs. If you practice shifting your focus to the positive – what you have to work with – you'll discover you are already much further along the path to self-sufficiency than you originally thought.

Tasha Greer

Consumables And Sustainable Alternatives



Plastic free deodorant-stick

2-8\$



Reusable make-up removal

10-20\$

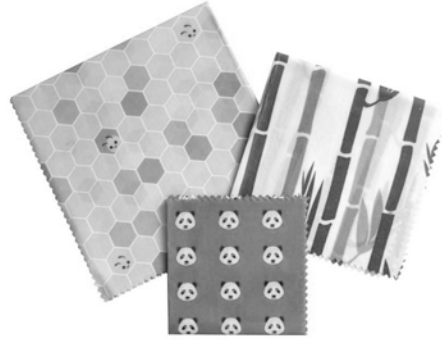
Bamboo Toothbrush

2-4\$



Razor with refillable razorblades

20-30\$



Reusable beewax fabric

8-20\$



Plastic free shampoo

4-15\$

and disposable clothing that emerged in the early 2000s, epitomized by brands like H&M and Zara. Fast fashion has grown exponentially over the last two decades, significantly altering the fashion landscape by producing more clothing, distributing it faster and encouraging consumers to buy in excess with low prices.

While fast fashion is expected to continue to grow 20% in the next 10 years, secondhand fashion is poised to grow 185%.

As researchers who study clothing consumption and sustainability, we think the secondhand clothing trend has the potential to reshape the fashion industry and mitigate the industry's detrimental environmental impact on the planet.

Clothes

Secondhand clothing sales are booming - and may help solve the sustainability crisis in the fashion industry

A massive force is reshaping the fashion industry: secondhand clothing. According to a new report, the U.S. secondhand clothing market is projected to more than triple in value in the next 10 years – from US\$28 billion in 2019 to US\$80 billion in 2029 – in a U.S. market currently worth \$379 billion. In 2019, secondhand clothing expanded 21 times faster than conventional apparel retail did.

Even more transformative is secondhand clothing's potential to dramatically alter the prominence of fast fashion – a business model characterized by cheap

Thanks to growing consumer demand



Reusable straws

5-15\$

and new digital platforms like Tradesy and Poshmark that facilitate peer-to-peer exchange of everyday clothing, the digital resale market is quickly becoming the next big thing in the fashion industry.

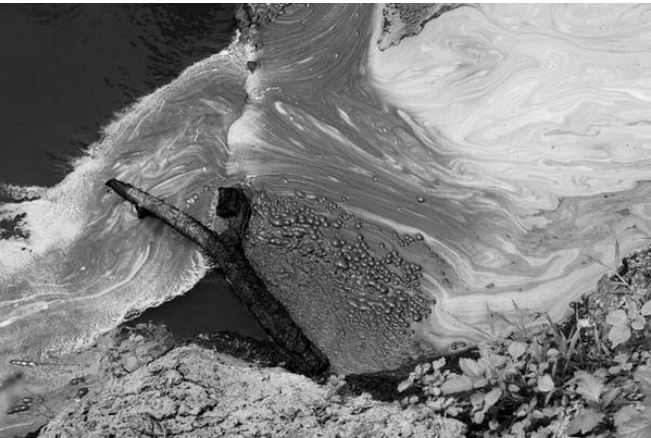
Ten smiling people in business attire pose together and clap their hands. Julie Wainwright, center, CEO of The RealReal, celebrates her company's IPO at the NASDAQ opening bell, Friday, June 28, 2019. Mark Lennihan/AP
The market for secondhand luxury goods is also substantial. Retailers like The RealReal or the Vestiaire Collective provide a digital marketplace for authenticated luxury consignment, where people buy and sell designer labels such as Louis Vuitton, Chanel and Hermès. The market value of this sector reached \$2 billion in 2019.

The secondhand clothing trend also appears to be driven by affordability, especially now, during the COVID-19 economic crisis. Consumers have not only reduced their consumption of nonessential items like clothing, but are buying more quality garments over cheap, disposable attire.

For clothing resellers, the ongoing economic contraction combined with the increased interest in sustainability has proven to be a winning combination.

More mindful consumers?
The fashion industry has long been associated with social and environmental problems, ranging from poor treatment

of garment workers to pollution and waste generated by clothing production.



Textile factory waste drains into a tributary of the Citarum River outside Bandung, Java, Indonesia, 2018. Ed Wray/Stringer via Getty Images News
Less than 1% of materials used to make clothing are currently recycled to make new clothing, a \$500 billion annual loss for the fashion industry. The textile industry produces more carbon emissions than the airline and maritime industries combined. And approximately 20% of water pollution across the globe is the result of wastewater from the production and finishing of textiles.

Consumers have become more aware of the ecological impact of apparel production and are more frequently demanding apparel businesses expand their commitment to sustainability. Buying secondhand clothing could provide consumers a way to push back against the fast-fashion system.

Buying secondhand clothing increases the number of owners an item will have, extending its life – something that has been dramatically shortened in the age of fast fashion. (Worldwide, in the past 15 years, the average number of times a garment is worn before it’s trashed has decreased by 36%.)

High-quality clothing traded in the secondhand marketplace also retains its value over time, unlike cheaper fast-fashion products. Thus, buying a high-quality secondhand garment instead of a new one is theoretically an environmental win. But some critics argue the secondhand marketplace actually encourages excess consumption by expanding access to cheap clothing.

[Deep knowledge, daily. Sign up for The Conversation’s newsletter.]

Our latest research supports this possibility. We interviewed young American women who regularly use digital platforms like

Poshmark. They saw secondhand clothing as a way to access both cheap goods and ones they ordinarily could not afford. They did not see it as an alternative model of consumption or a way to decrease dependence on new clothing production.

Whatever the consumer motive, increasing the reuse of clothing is a big step toward a new normal in the fashion industry, though its potential to address sustainability woes remains to be seen.

Hyejune Park, Cosette Marie Joyner Martinez
November 16, 2020

Stores and Websites

Search for „Second Hand Stores“ in your city and visit them. There are some for sure and the variety can be big.

Websites:
Vinted.com
momoxfashion.com
ebay.com
depop.com
and much more online...

Renewable Energy

What the Future of Renewable Energy Looks Like

Renewable energy capacity is set to expand 50% between 2019 and 2024, led by solar energy. This is according to The International Energy Agency (IEA)’s ‘Renewable 2020’ report, which found that solar, wind and hydropower projects are rolling out at their fastest rate in four years, making for the argument that the future lies in using renewable energy.

The Future of Renewable Energy: Growth Projections
Renewable energy resources make up 26% of the world’s electricity today, but according to the IEA its share is expected to reach 30% by 2024. The resurgence follows a global slowdown in 2019, due to falling technology costs and rising environmental concerns.

Renewable energy in the future is predicted that by 2024, solar capacity in the world will grow by 600 gigawatts (GW), almost double the installed total electricity

capacity of Japan. Overall, renewable electricity is predicted to grow by 1 200 GW by 2024, the equivalent of the total electricity capacity of the US.

The IEA is an autonomous inter-governmental organisation that was initially created after the wake of the 1973 oil crisis. It now acts as an energy policy advisor to 29 member countries and the European Commission to shape energy policies for a secure and sustainable future.

Solar Will Become 35% Cheaper By 2024
When the sun shines onto a solar panel, energy from the sunlight is absorbed by the PV cells in the panel. This energy creates electrical charges that move in response to an internal electrical field in the cell, causing electricity to flow.

Industry experts predict that the US will double its solar installations to four million by 2023. In 2018, the UK had over one million solar panel installations, up by 2% from the previous year and Australia reached two million solar installations in the same year. A big reason for this increased uptake is the fall in prices to install the panels.

The cost of solar PV-based power declined by 13% in 2018, while Carbon Tracker predicts that 72% of coal-based power will become globally unprofitable by 2040. The IEA report found that solar energy

will account for 60% of the predicted renewable growth, primarily due to its accessibility. Compared with the previous six-year period, expansion of solar energy has more than doubled. The cost of solar power is expected to decline by 15% to 35% by 2024, spurring further growth over the second half of the decade.

Future Capacity of Solar Energy
Wind and hydropower often require users to live in specific locations, but solar offers more freedom; the sun rises and sets on a predictable schedule, and it’s not as variable as running water or wind. Residential solar power is expected to expand from 58 GW in 2018 to 142 GW by 2024, and annual capacity additions are expected to more than triple to over 20 GW by 2024. China is expected to register the largest installed residential solar capacity in the world by 2024, with the strongest per capita growth in Australia, Belgium, the Netherlands and Austria.

Solar facilities will continue reducing their variability rates by storing electricity during the day and running at night. However, advanced solar plants will operate on higher DC to AC ratios, meaning they’ll deliver more consistent

service for longer durations.

Commercial and residential buildings will keep running at full capacity even in periods of low sunlight. Closing the gaps between sunlight collection and electricity generation will spur residents and corporations to join the solar movement. Therefore, it’s imperative for governments to implement incentive and remuneration schemes, as well as effective regulation policies. For example, California has mandated that after 2020, solar panels must be installed on new homes and buildings of up to three storeys.

Commercial and industrial solar energy capacity is forecast to constitute 377 GW in 2024, up from 150 GW in 2018, with China predicted to be the largest growth market. This market remains the largest growth segment because solar power is usually more inexpensive and has a relatively stable load profile during the day, which generally enables larger savings on electricity bills.



You might also like: Top 5 Fastest-Growing Renewable Energy Sources Around the World

Onshore Wind Energy Capacity Will Increase 57% By 2024
To generate electricity using wind, wind turns the propeller-like blades of a turbine around a rotor, which spins a generator, which creates electricity.

The adoption of wind power is becoming more prominent due to increased capacity.

Onshore wind capacity is expected to expand by 57% to 850 GW by 2024.

Annual onshore wind additions will be led by the US and China, owing to a development rush and a policy transition to competitive auctions respectively. Expansion will accelerate in the EU as competitive auctions continue to keep costs relatively low. These auctions will mean that growth in Latin America, the MENA region, Eurasia and sub-Saharan Africa will remain stable over the forecast period.

Offshore wind capacity is forecast to increase almost threefold to 65 GW by 2024, representing almost 10% of total world wind generation. While the EU accounts for half of global offshore wind capacity expansion over the forecast period, on a country basis, China leads deployment, with 12.5 GW in development. The first large US capacity additions are also expected during the forecast period.

Japan Expands Wind Energy
Japan is experimenting with the idea of

installing offshore turbines to replace many of their nuclear reactors, a result of the country’s 2011 nuclear disaster in Fukushima. The company Marubeni recently signed a project agreement to build offshore farms in northern Japan, with each farm able to produce 140 MW of power.

Japanese lawmakers have created regulations to give developers more certainty in constructing sources of wind-based electricity; legislation outlining competitive bidding processes has been passed to ensure that building costs are reduced and developers consider potential capacity issues. The country’s Port and

Harbour Law has also been revised to spur wind turbine construction in port-associated areas and other locations favourable to wind turbines.

Grid integration, financing and social acceptance remain the key challenges to faster wind expansion globally.

Hydroelectric Capacity Will Rise 9% By 2024
Hydropower plants capture the energy of falling water to generate electricity. A turbine converts the kinetic energy of falling water into mechanical energy. Then a generator converts the mechanical energy from the turbine into electrical energy.

According to the IEA, hydropower will remain the world’s primary source of renewable power in 2024. Capacity is set to increase 9% (121 GW) over the forecast period, led by China, India and Brazil. 25% of global growth is expected to come from just three megaprojects: two in China (the 16 GW Wudongde and 10 GW Baihetan projects) and one in Ethiopia (the 6.2 GW Grand Renaissance project).

However, there has been a slowdown in the two largest markets, China and Brazil; growth is challenged by rising investment costs due to limited remaining economical sites and extra expenditures in addressing social and environmental impacts.

Nevertheless, annual additions are expected to expand in sub-Saharan Africa and in the ASEAN region as untapped potential is used to meet rising power demand.

Geothermal Capacity Will Increase 28% By 2024
To generate geothermal energy, hot water is

pumped from deep underground through a well under high pressure. When the water reaches the surface, the pressure is dropped, which causes the water to turn into steam. The steam spins a turbine, which is connected to a generator that produces electricity. The steam cools off in a cooling tower and condenses back to water. The cooled water is pumped back into the Earth to begin the process again.

The US market for geothermal heat pumps will exceed \$2 billion by 2024 as demand for efficient heating solutions increases. Transformed building codes will encourage a move to

renewable heating and electricity systems in commercial and residential real estates.

Geothermal capacity is anticipated to grow 28%, reaching 18 GW by 2024, with Asia responsible for one-third of global expansion, particularly Indonesia and the Philippines, followed by Kenya, whose geothermal capacity is set to overtake Iceland’s during the forecast period.

The same research from Global Market Insights predicts the commercial market will experience the most considerable uptick; according to the Department of Energy, geothermal solutions will generate 8.5% of all electricity in the US by 2050.

The Future Lies in Using Renewable Energy Renewable energy will continue to rise in the upcoming decade, edging out fossil fuels and reducing greenhouse gas emissions.

“This is a pivotal time for renewable energy,” said the IEA’s executive director, Fatih Birol. “Technologies such as solar and wind are at the heart of transformations taking place across the global energy system. Their increasing deployment is crucial for efforts to tackle greenhouse gas emissions, reduce air pollution, and expand energy access.”

Emily Folk
August 22, 2021

Second Hand

Stores and Websites

Search for „Second Hand Stores“ online. Also there are a lot of websites and apps: ebay.com momox.com shpock.com and many more...

Mental Health

How to practice gratitude

Practicing gratitude can be a game-changer: it has far reaching effects, from improving our mental health to boosting our relationships with others. Living your life with gratitude helps you notice the little wins—like the bus showing up right on time, a

stranger holding the door for you, or the sun shining through your window when you wake up in the morning. Each of these small moments strings together to create a web of well-being that, over time, strengthens your ability to notice the good.

Building your capacity for gratitude isn’t difficult. It just takes practice. The more you can bring your attention to that which you feel grateful for, the more you’ll notice to feel grateful for!

Start by observing. Notice the thank yous you say. Just how much of a habitual response is it? Is it a hasty aside, an afterthought? How are you feeling when you express thanks in small transactions? Stressed, uptight, a little absent-minded? Do a quick scan of your body—are you already physically moving on to your next interaction? Pick one interaction a day. When your instinct to say “thanks” arises, stop for a moment and take note. Can you name what you feel grateful for, even beyond the gesture that’s been extended? Then say thank you.

How Do I Practice Gratitude? Robert Emmons, psychology professor and gratitude researcher at the University of California, Davis, explains that there are two key components of practicing gratitude:

We affirm the good things we’ve received We acknowledge the role other people play in providing our lives with goodness Most of us know it’s important to express thanks to the people who help us, or silently acknowledge the things we are grateful for in life. Research has linked gratitude with a wide range of benefits, including strengthening your immune system and improving sleep patterns, feeling optimistic and experiencing more joy and pleasure, being more helpful and generous, and feeling less lonely and isolated.

Interested in reaping some of these benefits? Get started with a gratitude practice.

Practicing Daily Gratitude 10 Ways to Practice Daily Gratitude As Jon Kabat-Zinn says, “The little things? The little moments? They aren’t little.” Saying thank you, holding the door for someone, these little moments can change the tone of your whole day.

One of the most powerful ways to rewire your brain for more joy and less stress is to focus on gratitude. Here are 10 simple ways to become more grateful:

Keep a Gratitude Journal. Establish a daily practice in which you remind yourself of the gifts, grace, benefits, and good



things you enjoy. Recalling moments of gratitude associated with ordinary events, your personal attributes, or valued people in your life gives you the potential to interweave a sustainable theme of gratefulness into your life. Remember the Bad. To be grateful in your current state, it is helpful to remember the hard times that you once experienced. When you remember how difficult life used to be and how far you have come, you set up an explicit contrast in your mind, and this contrast is fertile ground for gratefulness. Ask Yourself Three Questions. Meditate on your relationships with parents, friends, siblings, work associates, children, and partners using these three questions: “What have I received from __?”, “What have I given to __?”, and “What troubles and difficulty have I caused?” Share Your Gratitude with Others. Research has found that expressing gratitude can strengthen relationships. So the next time your partner, friend or family member does something you appreciate, be sure to let them know. Come to Your Senses. Through our senses—the ability to touch, see, smell, taste, and hear—we gain an appreciation of what it means to be human and of what an incredible miracle it is to be alive. Seen through the lens of gratitude, the human body is not only a miraculous construction, but also a gift. Use Visual Reminders. Because the two primary obstacles to gratefulness are forgetfulness and a lack of mindful awareness, visual reminders can serve as cues to trigger thoughts of gratitude. Often times, the best visual reminders are other people. Make a Vow to Practice Gratitude. Research shows that making an oath to perform a behavior increases the likelihood that the action will be executed. Therefore, write your own gratitude vow, which could be as simple as “I vow to count my blessings each day,” and post it somewhere where you will be reminded of it every day. Watch Your Language. Grateful people

have a particular linguistic style that uses the language of gifts, givers, blessings, blessed, fortune, fortunate, and abundance. In gratitude, you should not focus on how inherently good you are, but rather on the inherently good things that others have done on your behalf. Go Through the Motions. Grateful motions include smiling, saying thank you, and writing letters of gratitude. By “going through grateful motions,” you’ll trigger the emotion of gratitude more often. Think Outside the Box. If you want to make the most out of opportunities to flex your gratitude muscles, you must look creatively for new situations and circumstances in which to feel grateful. Please share the creative ways you’ve found to help you practice gratitude.

Gratitude and the Brain 4 Ways to Train Your Brain to Practice More Gratitude 1. Take time to notice what’s around you

Practicing mindfulness helps you tune in to the present moment. It is possible that if you are a grateful person, you are more mindful of others’ gestures. The more often you tune into your awareness, the greater the chances you will notice all the good that’s around you to feel gratitude for, which can then bring satisfaction and happiness. Our ability to pick up on the beauty of nature, kindness from one another, the chance to make a living via a job, all require our ability to be cognizant of ourselves and our surroundings. Being mindful of help in the kitchen, or the color of the sky allows us to generate gratitude by simply noticing them.

2. Practice gratitude for the little things

We often remember to be grateful for big events, like graduating from university or getting married, but it can be more difficult to feel grateful for the small things we do every day. Reminding yourself that eating a meal, for example, is in itself special can be very powerful. Your immediate awareness of the food in front of you, combining flavors while removing hunger, is a great way to enjoy gratitude as often as you eat! Another example is feeling grateful in the morning for being able to comfortably sleep at night. We gain comfort, satisfaction and peace by practicing mindfulness and gratitude in this repeated fashion.

3. Share your gratitude for your loved ones

Most of us are a little bit guilty of taking our loved ones for granted. The next time you notice a kind act by a loved one, why not show gratitude by simply saying ‘thank you’, or giving a hug? We ought to

show appreciation and not let kind acts go unnoticed. Training yourself to show your gratefulness for loved ones can strengthen your relationships with others.

4. Spread gratitude via your social media platforms

Social media can feel so negative at times, but using it to share your gratitude can help create a more positive online atmosphere. For example, share an uplifting moment from a recent event or a lesson you learned from a book you read, or a photo of a place near you that you’re grateful for. Spreading good, and in a unique and uplifting way, is one way we each can do our part in this digital age to remind each other that we have a lot to be grateful for. Let us each inspire one another in this way.

Training our minds to practice gratitude more often is possible if we are mindful of ourselves, each other and our environment. Let us widen our circle of appreciation. Please share your ideas for reminding yourself to be grateful.

3 Ways Gratitude Benefits Our Brains It can help relieve stress and pain. The regions associated with gratitude are part of the neural networks that light up when we socialize and experience pleasure.



These regions are also heavily connected to the parts of the brain that control basic emotion regulation, such as heart rate and arousal levels, and are associated with stress relief and thus pain reduction. Feeling grateful and recognizing help from others creates a more relaxed body state and allows the subsequent benefits of lowered stress to wash over us. (We recently published a scientific paper elaborating on these ideas.) It can improve our health over time. They are also closely linked to the brain’s “mu opioid” networks, which are activated during close interpersonal touch and relief from pain—and may have evolved out of the need for grooming one another for parasites. In other words, our data suggest that because gratitude relies on the brain networks associated with social bonding and stress relief, this may explain in part how grateful feelings lead to health benefits over time. It can help those with depression. Perhaps even more encouraging, researcher Prathik Kini and colleagues at Indiana University performed a subsequent study examining how practicing gratitude can alter brain function in depressed individuals. They found evidence that gratitude may induce structural changes in the very same parts of the brain that

we found active in our experiment. Such a result, in complement to our own, tells a story of how the mental practice of gratitude may even be able to change and re-wire the brain.

The Science of Gratitude Taking a moment to be thankful for the good things in life can help you cultivate a healthy work life, manage stress and develop a deeper connection to people, especially in tough situations. Researchers at the Greater Good Science Center at the University of California, Berkeley have even commissioned a three-year project, Expanding the Science and Practice of Gratitude, to dig deeper into the health benefits behind the art of appreciation.

What are the effects of practicing gratitude? It boosts your mental health. Those who write letters of gratitude reported significantly better mental health four weeks and 12 weeks after their writing exercise ended. While not conclusive, this finding suggests that practicing gratitude may help train the brain to be more sensitive to the experience of gratitude down the line, and this could contribute to improved mental health over time. It helps you accept change. When we are comfortable with the way things already are, it can be difficult to accept when things change—let alone feel grateful for that difference. But when we make it a habit to notice the good change brings, we can become more flexible and accepting. Here are four ways to practice gratitude when change arises. It can relieve stress. The regions associated with gratitude are part of the neural networks that light up when we socialize and experience pleasure. These regions are also heavily connected to the parts of the brain that control basic emotion regulation, such as heart rate, and are associated with stress relief and thus pain reduction. Feeling grateful and recognizing help from others creates a more relaxed body state and allows the subsequent benefits of lowered stress to wash over us. People who practice gratitude report: Fewer physical symptoms of illness More optimism Greater goal attainment Decreased anxiety and depression, among other health benefits. Gratitude also positively impacts our brains.

Practicing gratitude lights up the brain’s reward center. One study found that practicing gratitude by keeping a gratitude journal lights up the ventromedial prefrontal cortex, a key brain region associated with reward processing in the brain.

Mindful Staff
November 16, 2021

*„Do something. You are by
accident of fate alive at an
absolutely critical moment in the
history of our planet.”
- Carl Sagan*

