



Fan Club Ezine 2020  
Annual Edition

# Habitat for Health

## Introduction to Habitat for Health

Renewable natural resources are sustainable when they are replaced at a rate greater than or equal to the rate they are consumed. Recent human growth has withdrawn more from the bank of natural resources than what gets replaced.

When GAIA's ecological and human economical systems both fail, by-pass action is needed. Habitat for Health is positioned to incubate bottom up solutions to continue abatement and recovery as eco-eco top down resources begin to fail.

- Habitat for Health is a Web based research, publishing and consulting company.
- Blog briefs inform Subscribers what other people do to adapt to change and also acts like an idea generator
- Vlog briefs teach new Members how to DIY, source innovative solutions and help market Member projects
- Collectively we assist advancing Members who take action that benefits GAIA first and all concerned.
- Members can volunteer to learn and earn at their own pace.

## A Summary of Action and Hope

It doesn't matter how much 1 can do as much as doing what 1 can.



The fastest way to build a Habitat for Health is to buy green, help others do the same, mitigate unsustainable acts and failures to act.



Our GAIA Fan Club Ezines are posted in the Members area in pdf format. The ezine is used to archive public and Member only content.

**Subscription enquiries:**  
[www.habitatforhealth.com/contact](http://www.habitatforhealth.com/contact)

**Advertising:**  
[www.habitatforhealth.com/contact](http://www.habitatforhealth.com/contact)

**Contact:**  
[www.habitatforhealth.com/contact](http://www.habitatforhealth.com/contact)

**Contribute articles:**  
[www.habitatforhealth.com/contact](http://www.habitatforhealth.com/contact)

GAIA Fan Club Ezines are published monthly by Habitat for Health © All rights reserved. No part of this publication may be reproduced, translated or converted to machine-readable form or language without written consent of the publisher.

Articles express the opinions of the authors and are not necessarily those of the publisher.

The publisher does not explicitly or implicitly endorse third parties in exchange and advertising does not influence editorial content.

Instructions and advice are for conversation or instruction purposes only. The creators, producers, contributors, distributors and Habitat for Health disclaim liability for any or all real or perceived loss or lack of results of any kind whatsoever that may directly or indirectly be related to content expressed herein.



# Contents

## From the Blog

How to Make Sure Your Stuff Lasts Longer .....	7
What Goes With Brussels Sprouts And Different Ways To Cook Them .....	8
Tesla Cybertruck is an Electric Pickup Truck With Blade Runner Appeal .....	9
Mountain Ice Melt Threatens Global Freshwater Supply .....	10
Students Fight Urban Sprawl With 2 LEED Platinum Houses.....	11
Understanding Particle Pollution and What You Can Do to Stop It.....	13
Nutritious Food Plants You Can Harvest Quickly.....	14
7 Practical Ways To Make Your Home More Eco-Friendly .....	15
Small, Everyday Ways To Improve the Environment .....	16
How Much Do Electric Vehicles Help Reduce Pollution? .....	17
What Are Key Technologies for Cleaning Our Water .....	18
How to Deal with Mosquitoes Without Using Chemicals .....	19
How Much Can You Save With Solar Panels? .....	20
Different Uses of Recycled HDPE Plastic .....	21
Energy Saving Tips While at Home due to Coronavirus.....	22
When and Where to Buy Appliances in 2020 .....	23
An Introduction to Green Energy .....	24
How Much is the Average Electric Bill Per Month? .....	25
Inexpensive Ways to Make your Home Energy Efficient .....	26



# Contents

## From the Blog

Is Climate Change Causing Increases in Natural Disasters? .....	27
A Guide to Optimal Thermostat Settings .....	28
Brands that Put the Planet First.....	29
Green Quarantine Tips To Stay Environmentally Friendly .....	30
Storm Warning: How Climate Change Creates Devastating Hurricanes.....	31
Green Ideas and Cleaning the Home.....	33
Green Technology Creates Electricity from Thin Air .....	34
How to Grow Herbs Indoors .....	35
Small Bathroom & Laundry Room Storage Ideas.....	36
Top Ways to Create an Eco Friendly Business .....	37
How to Improve Indoor Air Quality .....	38
Solar Water Purifier Providing Access to Clean Water .....	39
Preparing For Clean-up After a Natural Disaster .....	40
High Protein Foods To Lower Environmental Impacts of Beef.....	41
The Importance of Individual Recycling .....	42
Why Install LED Shop Lights As Soon As Possible? .....	43
Are Modular Container Homes Cost Effective? .....	44
DIY Curtain Ideas That Save Money and Save the Planet .....	45
Heat Recovery Ventilation Benefits to Health and Energy Efficiency.....	46



# Contents

## From the Blog

Recycling Consumer Electronics - Waste Management.....	47
Wind Power Solar Energy & Hydro - Solid State Update.....	48
Wind Power Solar Energy & Hydropower continued... ..	49
Climate Change Impacts on Human Life Systems.....	50
Climate Change Impacts on Human Life Systems cont... ..	51
Save Money Save the Planet by Following Home Energy Trends.....	52
Save Money Save the Planet by Following Home Energy Trends.....	53
Smart Control of Energy Saving Home Improvement .....	54
Smart Control of Energy Saving Home Improvement .....	55
New Energy Supply Gets Personal as Combustion Technology Costs Increase.....	56
New Energy Supply Gets Personal as Combustion Technology Costs Increase.....	57
Water Management in Uncertain Environments .....	58
Water Management in Uncertain Environments .....	59
Effects of Space Weather on Human Economic Activity .....	60
Effects of Space Weather on Human Economic Activity .....	61
2020 Summary of Top Events .....	61
How Important Bees Are to Economic Recovery in 2021 .....	62



# Contents

## GAIA Fan Club

How GAIA Fan Club Works.....	63
GAIA First© Economics, GAIA First© Pay It Forward Method .....	64
The Apiary Project.....	65

## Financing the GAIA Fan Club

Habitat for Health (H4H) is preparing to register as an extraprovincial company under the Business Corporations Act in British Columbia. The intent is to qualify the GAIA Fan Club (GFC) as a fiscally sponsored project of H4H. GFC and the H4H Blog are intended to operate as nonprofit organizations legally and financially responsible for all project activities as deemed acceptable by Habitat for Health home office.

Membership in the GFC dues are set at less than \$1-a-day. Membership project participation is voluntary and in some cases recognized with credits for time volunteered. In the event credits are exchanged for currency, taxable value will be determined prior to redemption.

Contribution is tax-deductible to the extent allowed by law and no goods or services are provided in exchange for Member generosity unless delared upon redemption.

Revenue derived from project proceeds are held in trust by project managers as tax free gifts to be used for the benefit of the project unless delared upon redemption.

For example, if a project sells produce from a community garden, then accepting money for produce is akin to a donation. A stipend may be used to compensate interns or volunteers at GFC non-profit events.

Income before incorporation will be held in trust and used only for H4H expenses. Income after incorporation will be held in trust and may also be managed by project leaders according to articles of incorporation.



## How to Make Sure Your Stuff Lasts Longer



If you live off the grid or you are just frugal, here are some tips to make your stuff last longer. You can extend the life of your clothes by hand-washing them and hanging them up to dry. Keep food longer by using sealed glass jars to store food and use washable cheese cloths to keep cheese from molding.

Keep your car rust-free by investing in rustproofing. Do regular maintenance on your engine and car body. Change the oil and filters as directed. Replace the gasket on your refrigerator as needed. Keep your gutters clean and inspect your roof for problems. Change your filters for your HVAC system every month to extend the life of your unit.

### Key Takeaways:

- Putting your clothes in the dryer may be a quick fix to damp fabrics, but it ends up pulling at threads and fibers within the material.
- In order to ensure that your vehicle works as long as possible, engaging in routine preventative automotive care is essential.
- You can protect any leather furniture you have by tinting your windows. This ends up decreasing the amount of fading caused by the sun and heat.

"Even though many now live by the convenience principle of tossing broken things and buying new, learning to extend the life of our objects also helps protect the planet we share."

## What Goes With Brussels Sprouts And Different Ways To Cook Them



Brussels sprouts do not have a good reputation, perhaps because we were forced to eat them as kids. However, they are beneficial to the body, providing us with minerals and vitamins we need without blocking the ability of the body to absorb them (as some vegetables do).

The good news is, we aren't stuck with eating flavorless boiled brussels sprouts. There are several ways to cook them and a variety of seasonings to tempt the taste buds; they don't have to be torture anymore.

### Key Takeaways:

- In restaurants, brussels sprouts are most frequently served with bacon.
- Brussels sprouts contain many nutrients, including Vitamin K, Vitamin C, manganese, and antioxidants.
- Brussels sprouts can be seasoned with salt, black pepper, and olive oil and roasted in the oven.

"Garlic, nuts, citrus, and balsamic vinegar all play off of brussels sprouts's flavor beautifully."



## Tesla Cybertruck is an Electric Pickup Truck With Blade Runner Appeal



Elon Musk presented the Cybertruck which is an electric pickup truck. Musk promised that the Cybertruck will be like having a truck that performs like a sports car. The truck itself looks very futuristic and it is extremely popular. It comes in three models and can accelerate to 60 miles per hour in less than 3 seconds, which is unheard of for a truck. Tesla is hoping that this new model can rival Fords most popular truck, the F 150 and the truck will be available starting in the Fall of 2021.

### Key Takeaways:

- The new Cybertruck will feature highly angular lines, giving it a futuristic vibe.
- This truck is the newest creation to emerge from the Tesla line of vehicles.
- Drivers, their appetites whetted, have waited a long time. As evidence, pre-orders have surpassed 200,000.

"At a press conference last week, Elon Musk presented the Cybertruck, an electric pickup truck that promises all of the utility of a truck and the performance of a sports car."

## Mountain Ice Melt Threatens Global Freshwater Supply



A recent study published by Nature found glacier fed freshwater systems are at risk. Climate change appears to be a significant cause. Mountain glaciers are like water-towers storing water from rain and snow. When the ice melts water gets supplied downstream.

As global warming increases the glacial water towers melt faster. The increased water flow shrinks natural storage. The risk of downstream flooding goes up. The Indus basin in south Asia and the Amu Darya basin in central Asia will be at risk with the rising water from the glaciers melting. More research should be done on the risk of climate change on the water towers and not just focus on rising sea levels.

### Key Takeaways:

- Glacier based freshwater systems are becoming threatened because of climate change.
- For the first time ever, both the natural water supply from mountains located in Asia and the water demand by society is vulnerable.
- Water shortages are going to happen because of water stress and future climate change.

"Based on the study, Asian water towers were the most vulnerable, particularly the Indus water system."

## Students Fight Urban Sprawl With 2 LEED Platinum Houses



The nonprofit Studio 804 has created two sustainable homes in Lawrence, Kansas to show how urban density can be accomplished in established neighborhoods. The goal is to limit urban sprawl. Grad students at the University of Kansas designed and built the houses, which are certified LEED Platinum.

The homes include energy-efficient features such as reflective metal roofs, high-performance windows and doors, and large walls of glass to let in natural light. Studio 804 has now completed 13 LEED buildings to date.

### Key Takeaways:

- The nonprofit organization Studio 804 has developed two homes in Kansas City to show how to fight urban sprawl.
- The houses were built by graduate architecture students at the University of Kansas.
- The houses have similar floor plans, are energy efficient and are certified LEED platinum.

"The energy-efficient homes feature airtight and highly insulated envelopes topped with reflective metal roofs that reduce heat absorption."

## Dutch Company Reduces Demand for New Plastic by Reusing and Recycling Waste



Pollution is a global issue, and plastic pollution is no exception. A Dutch company, Clear Rivers, employs devices called Litter Traps to fight this issue. Traps created from recycled plastic get reused to collect plastic debris.

River currents power Litter Traps to complete the reduce, reuse and recycle trifecta. No wonder these traps are attaining world recognition for it's full 3R business model. Kudos to Clear Rivers for clear thoughts and godspeed for their expansion plans.

### Key Takeaways:

- Dutch company Clear Rivers uses recycled plastic Litter Traps to fight plastic pollution.
- Litter Traps catch waste from rivers, reduces pollution and demand for new plastic.
- The Litter Traps use natural energy to collect waste for recycling and in turn creates economic growth out of renewable 3R cycles.

Sourced from recycled plastic, the Litter Trap filters water, collects plastic waste and stops that plastic from traveling downstream. Very clever way to abate costly environmental cleanups and turn it into potential local economic opportunities.

## Understanding Particle Pollution and What You Can Do to Stop It



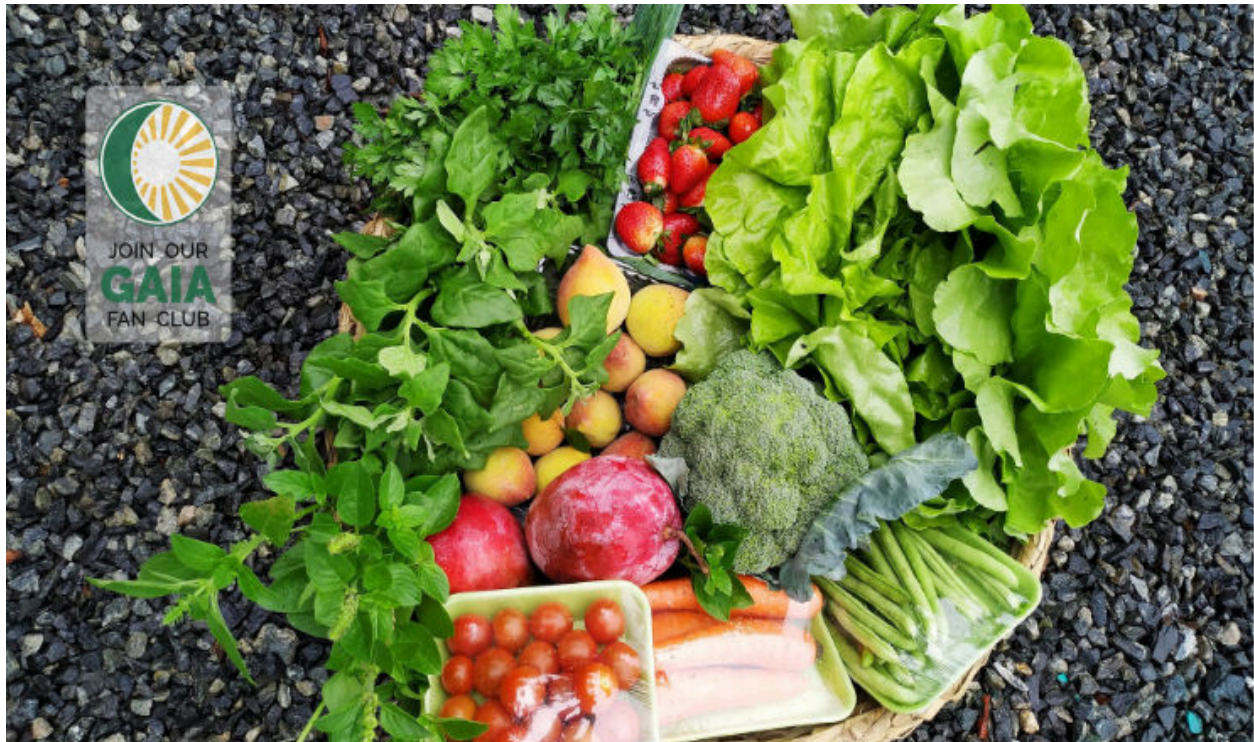
Particle pollution is all around us and most of us have had experience with it at some point in our lives. Particle pollution are particles of liquid and solid that are suspended in the air. Some things that can cause this are car exhaust and cigarette smoke. The first step is to stop smoking and filling the air with these particles, another thing you can do is stop using the fireplace as often. You can also avoid heavy cleaning with harsh chemicals. The particles aren't harmless, they can cause serious risks to your health.

### Key Takeaways:

- Particle pollution is the super tiny liquid and solid particles that are floating throughout the air, like car exhaust or smoke.
- The best way to reduce particle pollution is to quit smoking. Not only is smoking bad for your health, it's bad for the environment.
- Reducing emissions that come from your cars is a great way to prevent particle pollution. If you can get to a store easily by walking or riding a bike, ditch the car.

"There are many ways to keep yourself safe from particle pollution. Decreasing your contribution will do a lot of good, but you can also avoid particulates from other sources. Minimizing your exposure will help you stay healthy."

## Nutritious Food Plants You Can Harvest Quickly



There are many plants that we can eat that harvest very quickly. For example, spinach is a great source of minerals and vitamins and can also improve our eyesight and fight Alzheimer's. Spinach can be harvested as quickly as one month after it's been planted. Carrots are also a great source as they harvest in about six weeks and offer us fiber while reducing the risk of cancer. Finally, radishes can be harvested as quickly as 3 weeks after planting and are great to help our digestive system and cardiovascular health.

### Key Takeaways:

- Carrots do well growing in areas with a lot of sunshine.
- It's best to plant your crop of carrots three to five weeks prior to the last frost.
- Lettuce grows well in colder temperatures and can actually be harvested within a month of their planting.

"Imagine having fresh spinach harvested four to six weeks after planting. Even better, a vegetable garden in your backyard will complement that verdant, green lawn and add some color and texture to your landscape."

## 7 Practical Ways To Make Your Home More Eco-Friendly



There are many things that we can do to make our house more eco-friendly. First we can install lower energy appliances by checking the energy ratings and not getting appliances that are too big for our needs. We can also switch to LED lights that not only save energy, but also last much longer than regular bulbs. Upgrading to a smart thermostat is a great way to prevent your home from wasting energy as it keeps the temperature at a energy efficient constant. Finally, instead of using plastic, use recycled wood or glass to help improve our planets carbon footprint.

### Key Takeaways:

- Switching to LED lights are more expensive, but they also last much longer. They're more energy efficient and require less maintenance.
- Reuse old materials like recycled wood and glass instead of plastic to damage the planet much less.
- Upgrading to a smart thermostat is a great way to prevent your home from wasting energy and can also track your usage to help you use that energy more efficiently.

"By reducing our energy usage we're consuming less of the earth's (limited) resources. And, we're saving money."

## Small, Everyday Ways To Improve the Environment

27  
MAR 2020



There are many things that we can do in our everyday lives to help improve the environment around us. First, reduce the waste we leave by composting food and recycling plastic. Next, carry your cups around instead of using disposable plastics. Use public transportation when you can to reduce CO2 emissions and even walk if places are nearby. Finally, cut down on dairy and meat consumption as livestock at farms contributes heavily to water pollution, deforestation and climate change in the world.

### Key Takeaways:

- Reduce your waste by recycling plastic and composting your food waste. Recycle as much as you can.
- Use public transportation to lessen CO2 emissions and even walk if you can get to places that are nearby.
- Try to cut down on meat and dairy a little bit as livestock contributes heavily to water pollution and climate change.

"There's no denying that it will take a global effort to affect a global change on our environmental impact."



## How Much Do Electric Vehicles Help Reduce Pollution?

3  
APR 2020



One of the most negative impacts with regards to pollution is gasoline based vehicles. When it comes to electric vehicles, most of these vehicles are powered by non renewable resources. So while electric vehicles may reduce some pollution, the difference isn't as great as manufacturers make it seem.

If you had to pick between a traditional car and an electric car, you should pick the electric car simply because it does reduce pollution. As technology is advancing, we are even seeing electrical bikes and scooters being used more. Balancing your life is key, just try to limit the use of your car in general to help improve the environment.

### Key Takeaways:

- The United States has some of the most motorized vehicles on a per capita basis, and 80% of the population owns one.
- Electric vehicles are charged through power outlets, and they make it easier for someone to reduce their carbon emissions.
- Electric vehicles still use a lot of non-renewable energy sources to run effectively, although they can help bring about carbon neutrality.

"If reducing your carbon footprint is high on your list of priorities, the best thing to do will be to combine several eco-friendly modes of transport."



## What Are Key Technologies for Cleaning Our Water



There are quite a few new technologies that clean water and improve the environment. For example, the sun provides us solar power which helps bring potable water to everyone. Graphene systems are also being developed with regards to filtering and they may be able to reduce the cost of removing salt from water by 20%.

We also have automated systems that are designed to filter water and automatically process and manufacture it into bottles. The cleaner our water, the more healthy the water and that is why we need to continue to develop these technologies.

### Key Takeaways:

- Clean water is essential for all life and indicates how well we're doing to clean up the environment.
- Solar power is proving to be a major ally in our mission to bring potable water to everybody.
- A newly patented type of filter, made of graphene, has the potential to reduce costs of desalination.

"According to the United Nations, developing countries see as much as 80% of their wastewater returned to waterways without treatment."

## How to Deal with Mosquitoes Without Using Chemicals

17  
APR 2020



Mosquitoes are not only annoying when they constantly bite you, but they can always carry deadly diseases. There isn't much harm in using the chemical based mosquito repellents as long as you wash it off as soon as you are inside and away from them, but there are some natural thing you can try to ward off the mosquitoes.

Some people are just more attractive to mosquitoes, there are a variety of different reasons why. You can try lavender oil or just throw some thyme leaves into the camp fire, to name a few.

### Key Takeaways:

- Cinnamon oil is a great natural mosquito repellent as it kills mosquito eggs and also helps to repel adult mosquitoes.
- Most cities rank mosquitoes as the worst insects because of how easy they can spread diseases such as the West Nile Virus.
- Lavender is a great mosquito repellent and it also is very soothing for the skin after you get a bite.

"Several plants will also keep the bugs at bay including peppermint, basil, catnip, and rosemary"



## How Much Can You Save With Solar Panels?



A lot of people want to know how much money they could save with solar panels. The simple straight forward answer is an average of \$30,000 over the lifetime of the panels. This can depend on a lot of factors but overall solar saves most people a considerable amount of money while also being good for the environment. 2 million homes in the United States are using solar and we think this trend will continue.

### Key Takeaways:

- Considering the average lifespan of each solar panel, homeowners can expect to save an estimated \$30,000.
- It is important to weigh the difference in your current energy bill, and one with solar panels in order to determine if they're the right choice for you.
- The main goal in installing these innovative solar-powered units is to help reduce your family's carbon footprint while enhancing sustainability.

"Solar panels work by allowing you to create your own energy using the power of the sun. This energy is used through your house thus reducing the amount of non-solar energy you are required to use."

## Different Uses of Recycled HDPE Plastic



High-density polyethylene, more commonly known as HDPE, is thermoplastic polymer that is highly recognized for its substantial strength driven by monomer ethylene. Manufacturers often use HDPE in both plastic and lumbar furniture. This is because it is not only durable, but also very easy to install.

Commercial businesses often utilize HDPE plastic for things such as containers, utility pipes, and even cosmetic containers. Since HDPE is recyclable, manufacturers do not have to worry as much about the impact on the environment.

### Key Takeaways:

- Recycled HDPE plastic can be used for furniture, for park benches, or outdoor decks.
- These HDPE plastic innovations can be used for bottles and the extra recycling will amount to huge gains in reducing landfill waste.
- An individual can even recycle their own HDPE bottles into gardening tools or other useful utilities.

"Recycled HDPE plastic can be used to make outdoor park furniture, such as park benches and picnic tables. Park benches and outdoor trash receptacles can be made from HDPE plastic, which are resistant to graffiti."

## Energy Saving Tips While at Home due to Coronavirus



A lot of people are stuck at home due to the Coronavirus. Now's a great time to learn some energy saving tips that you'll be able to use even when things settle down. You could start with some small upgrades to your home.

Some energy efficient light bulbs and low flow shower-heads can go a long way. You can also work on getting a programmable thermostat. Clean your air filters and make sure you're not leaving the oven door open when you cook.

### Key Takeaways:

- Try to invest in a programmable thermostat that will allow you to turn it off when you're away from home.
- If your dryer has a moisture sensor, enable it so that the dryer will shut off when it senses that the clothes are dry.
- Since your home can naturally heat up from sunlight, close your blinds and shades during the day in the warmer months.

"Although today more and more people are committing to going green, implementing energy saving strategies is motivated not only by the desire to protect the environment but also to save money on utility bills."

## When and Where to Buy Appliances in 2020

15  
MAY 2020



When you're a homeowner, you may find yourself needing to replace your appliances due to normal wear and tear. However, there are certain times of year when it can be best to replace your appliances.

For example, new models are on display beginning in September, but there are sales around Memorial Day and the 4th of July. Here are some tips for when to buy new appliances and how to get better deals when you're purchasing.

### Key Takeaways:

- If you're okay with visual imperfections, you can find good savings on floor models and other appliances.
- Look beyond the sticker price for any charges for delivery, set up or removal of old appliances.
- You can save money on less demanded colors and designs, but you'll be stuck with it for many years.

"Sometimes you may be able to score better savings with an insider deal or maybe the appliance is offered at a lower price online."



## An Introduction to Green Energy



When energy sources are more beneficial to the environment in comparison to other energy sources, they are known as green energy sources. Green energy is also often known as renewable energy, since they can naturally be replaced by things that are provided by nature.

Since these energies are renewable, they can never be depleted. There are five primary sources of green energy, and they are called: solar energy, wind energy, hydroelectric energy, biomass energy, and geothermal energy.

### Key Takeaways:

- Green energy and renewable energy can refer to the same thing since these are energy sources that won't run out.
- We want green energy because it's more sustainable for the earth. Furthermore we can save money and provide job opportunities with solar.
- Thirty percent of the Global Warming emissions come from electricity and so this is a huge factor when it comes to reducing our global footprint in the United States.

"Energy sources are often classified as either renewable or nonrenewable. The latter refers to energy resources that will eventually be depleted. This is because nature cannot naturally replace these energy resources fast enough to keep up with demand."



## How Much is the Average Electric Bill Per Month?



The average electric bill in the United States is currently \$117.65 per month. Experts are predicting that prices are going to get even worse in the future. The heating and cooling in a house accounts for about 42 percent of the bill while electronics take up 21 percent of most household electricity.

There are some tips that can help with electricity usage. One many don't think of is reversing the blades on your ceiling fans in the winter to push warm heat down.

### Key Takeaways:

- A study done by the According to the Energy Information Administration found that the average electricity bill for American households is \$117.65 per each month.
- Heating and cooling costs typically make up about 42% of every household's electricity bill.
- As the demand for electricity grows, the pricing naturally goes up. This is why it is highest in the summer when cooling costs skyrocket.

"But if you decide to move, it's crucial that you understand how much you should expect to pay for electricity in your new home."

## Inexpensive Ways to Make your Home Energy Efficient

5  
JUN 2020



If you're stuck at home due to coronavirus, you might worry that more hours with the lights and other appliances on means a higher energy bill. However, you can make fixes while you're home to use less energy. Here are easy ways to lower utility bills.

For example, switch to an energy-efficient tablet if possible or keep your screen brightness down. Turning your appliances on only when using them will also help. Read on for more energy-efficient tips.

### Key Takeaways:

- Instead of using a laptop or a tablet, use a desktop as they are more energy efficient and use less electricity.
- Stick to a schedule so that you can run your appliances and devices at the same time each day which will prevent overuse.
- Turn down your heat or air conditioner and instead use the air from outside to cool or heat your home. This will also lower your electricity and/or gas bill.

"Widespread Shelter in Place orders and increased community awareness has turned a lot of America's workforce into telecommuters. Whether you use your own computer or company equipment, plugging a desktop computer into your wall is going to suck out much more electricity than a laptop or tablet."



## Is Climate Change Causing Increases in Natural Disasters?



An increase in extreme weather events over the past few years is probably caused by climate change. Increased global temperatures have increased the likelihood of precipitation extremes (i.e., heavy rainfall and drought). Hotter temperatures in dry regions increase droughts and wildfires.

People can still take action that prevents or lessens extreme events in the future. We can reduce global carbon emissions and build up protective infrastructure. Individuals should take steps to learn what to do if a natural disaster strikes their area.

### Key Takeaways:

- Since warm water is a critical source of energy for storm systems, higher sea temperatures tend to make these storms stronger.
- Higher temperatures can dry out fire-prone areas, making them progressively more vulnerable to large fires.
- Designing sturdier buildings and more resilient infrastructure and systems can help reduce the impact of severe weather.

"Scientists are reasonably sure that increased temperatures as the result of climate change have made extremes in precipitation – heavy rainfall and drought – more likely. The relationship between all extreme weather and climate change is less clear."

## A Guide to Optimal Thermostat Settings



There are a few things you can do to make sure that you don't lose heat in the winter. Some parts of the world are better off when it comes to securing the heat into your home, but there are a couple things you can do that you maybe haven't thought were hurting your heating costs.

Locking your window can create a seal in your home that you wouldn't otherwise have if they were unlocked. Another thing you can do is make sure the heat stays on. Coming home and turning it up as high as it will go to heat your home will make your energy bill skyrocket.

### Key Takeaways:

- If you put your thermostat up too high, your heating bill will sky rocket and your heat won't be much warmer than at a normal temperature.
- If you keep your thermostat too low, it can create long-term problems and your furnace may have to work harder to generate heat.
- Don't use a fireplace to heat your home as that air will go out the chimney and it isn't as sustainable as a boiler when it comes to heating.

"Locking your windows is clearly essential from a security perspective, but it also works wonders from an energy preservation point of view as well."

## Brands that Put the Planet First



Brands tend to not take part in the environmental care that we need to have on our planet right now. There are several brands though, that seem to really go above and beyond with the production of their products that are environmentally friendly and are just as useful as the products that aren't.

Burgers that aren't derived from actual meat are said to help the planet as well as aid in bettering the health of the people who use it.

### Key Takeaways:

- It's important to try and find brands that are doing their part to care for the environment.
- Yeti makes coolers and more using eco-friendly materials and helps consumers cut down on plastic.
- Honest beverages both offer healthy drinks and have worked to reduce their carbon footprint.

"Take a look at some of our favorite environmentally-friendly brands that are delivering excellent products that are safe for the environment."

## Green Quarantine Tips To Stay Environmentally Friendly

3

JUL 2020



Staying at home during quarantine doesn't mean you have to sacrifice your environmentally-sound principles. While sheltering-in-place, you can order products online, which reduces gas emissions, but be sure not to stock up on too many products. Also, when looking into materials for that new project, make sure to purchase eco-friendly materials that are less harmful to the environment. Finally, you can save energy at home by unplugging bulky appliances and adjusting your thermostat to higher temperature to reduce power directed at your home's cooling system.

### Key Takeaways:

- You don't have to stray from living green while isolating at home during the coronavirus pandemic.
- When ordering products online, it's important to consider the environment and not overspend or overstock.
- To save energy, you may want to adjust the thermostat or unplug electronics that are draining power.

"Eco-friendly paint is not only better for the environment, but because organic paints have lower levels of VOCs, they give off fewer toxic fumes. You will still need to ventilate the room after painting with organic paints, but the smell will be less offensive and damaging to your health."

## Storm Warning: How Climate Change Creates Devastating Hurricanes



The effects of climate change have given rise to more frequent and destructive hurricanes. According to meteorologists, the hotter average temperatures and higher humidity cause these cyclones to increase in strength and longevity. Global warming plays a role since the temperature is warmer, and melting ice caps lead to higher sea levels and storm surges.

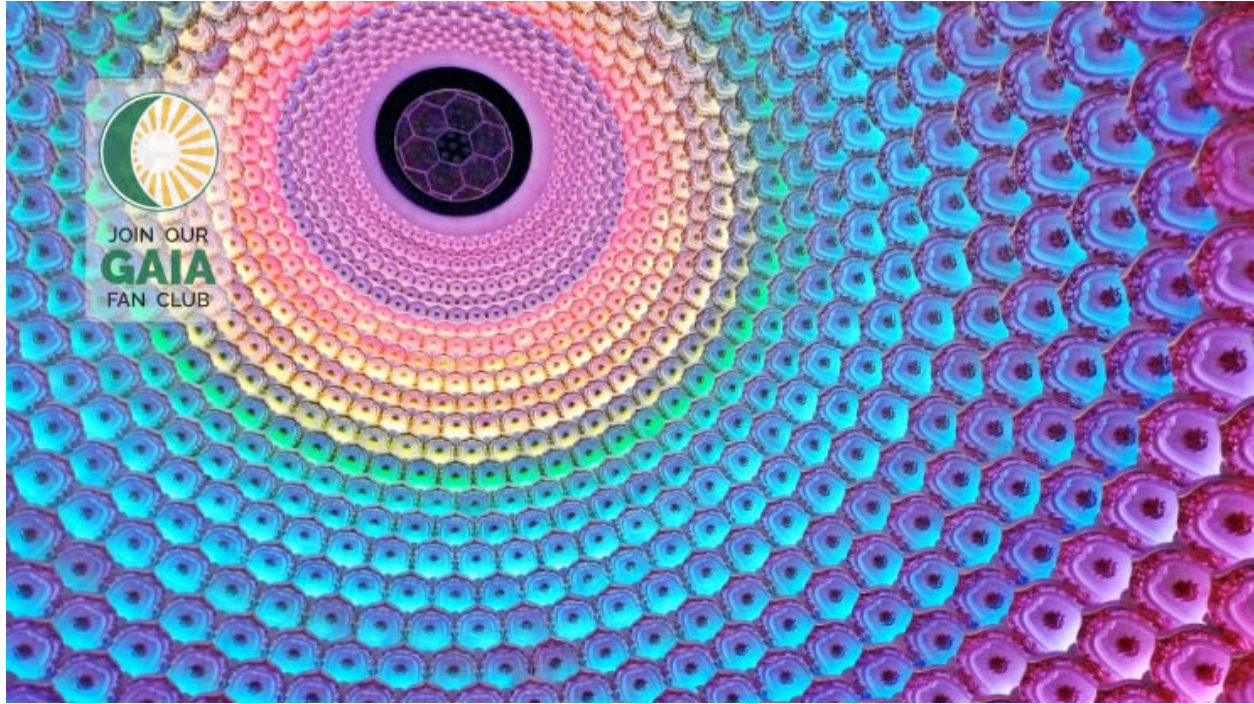
Experts believe that climate change is the main driver for the increased intensity of tropical storms, and they are urging residents to be prepared for the increasing strength of hurricanes in the next few years.

### Key Takeaways:

- Meteorologists believe that global warming is one of the causes for the recent intensity of hurricanes.
- Unseasonably hot conditions from climate change have given rise to more destructive extreme weather events.
- It's important for everyone to take precautions when it comes to hurricane season, like having a go-bag and keeping the car filled with gas.

"Most hurricanes start around the earth's equator, an area where warm temperatures and moist air are the norms."

## Environmental and Financial Benefits of Using LED Lighting at Home



LED are more environmentally-friendly home lighting solution as opposed to traditional bulbs. These LED bulbs last for extremely long times, which creates less waste. They are also extremely energy efficient and use just over half the power of their incandescent counterparts. Also, they don't get hot like other bulbs and have less of a carbon footprint. Finally, LED light bulbs produce a much cleaner light as they don't emit ultraviolet or infrared radiation. Overall, they are a simple solution to help aid in the fight against climate change.

### Key Takeaways:

- Many homes and businesses are switching to LED lighting as they provide a lot functional and environmental benefits.
- LEDs are a cleaner source of of light as they do not emit any ultraviolet radiation or infrared light.
- The LED lightbulbs themselves do not give off heat either, which is better for energy consumption and makes them a safe option.

"LEDs can generate more light than incandescent bulbs yet at a very low voltage. This makes them more energy efficient something that is reflected in the utility bills every month."



## Green Ideas and Cleaning the Home



Using environmentally friendly ideas to keep your house clean doesn't have to cost a lot of money. A good start is to examine the things around your house and how you can use them again. For example - old newspapers can become a good window scrubbers (instead of paper towels), old t-shirts can be reborn as rags and old cookie tins could become planters for flowers.

Being conscious of what substances you use to clean the house (and how much effort is spent cleaning a big house) are more ways to be eco friendly.

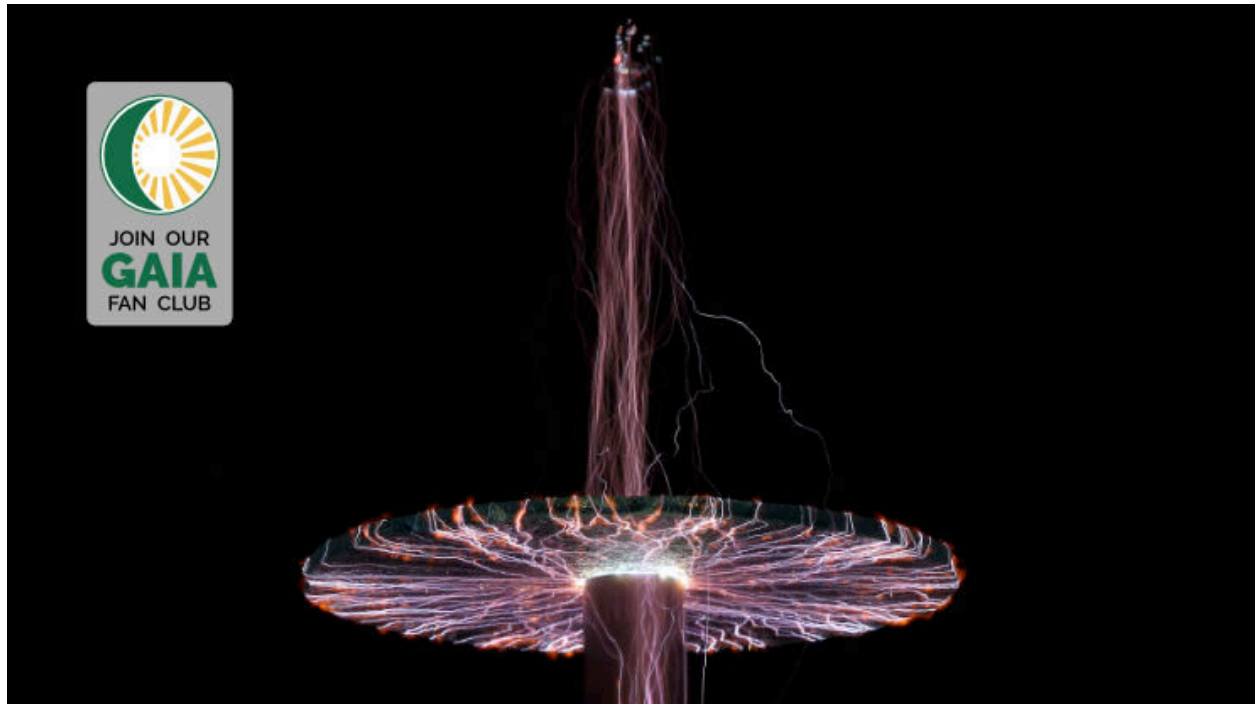
### Key Takeaways:

- Use reusable shopping bags as trash bags for your home to throw away trash.
- You can install solar panels instead using electricity for your home.
- Use an eco-friendly energy efficient LED light bulbs for your home instead of regular light bulbs.

"Choosing to incorporate green living in your home will be the best decision you could ever make when it comes to saving up both time and money."



## Green Technology Creates Electricity from Thin Air



A new generator may be the next device to revolutionize the power industry. The Air-gen is a generator that creates electricity by harnessing the water vapor from air. Created by scientists at the University of Massachusetts Amherst, the Air-gen is a sustainable, efficient, and low-cost solution that will help provide power to those in need. For now, the device can only operate low-powered electronics, but the team of researchers hopes to scale it up for commercial use in the near future.

### Key Takeaways:

- The Air-gen operates by connecting protein nanowires to electrodes in order to produce electricity using the water vapor in the air.
- Air-gen was developed at the University of Massachusetts Amherst by an electrical engineer working with a microbiologist.
- Although currently Air-gen technology can only power small devices, there are ambitious plans in the works to scale it up.

"In addition, this technology can easily be used to generate power in an area with low humidity, like the Sahara."

## How to Grow Herbs Indoors



The COVID-19 pandemic has provided an opportunity for people to focus more on sustainable living, and one practice that has become popular is creating an indoor herb garden. Before planting your garden, you should understand the needs for each type of herb. Some plants like basil, oregano, and thyme need plenty of sunlight, while others do just fine in the shade.

Gardeners should understand which herbs they consume most, and plant those ones first. While it may seem difficult at first, with practice, anyone can create a fresh herb garden in their home!

### Key Takeaways:

- Many herbs can grow well indoors, including basil, mint, rosemary, thyme and oregano.
- Herbs can vary widely in terms of how much water they need, and you need to do your homework on each type of plant you intend to grow.
- When choosing herbs to grow, you should consider both the growing conditions you can provide and what types of herbs you use most often in cooking.

"Herbs are one of the easiest gardens to grow, and you don't even need a backyard!"

## Small Bathroom & Laundry Room Storage Ideas



Bathroom and laundry rooms, no matter how big or small, always seem to lack sufficient storage space. Optimizing this space can allow you to store more stuff in them than you currently do. Consider stacking your washer and drier, using the kit appropriate for your appliances. Ladder shelving is an excellent way to increase your storage space without adding an impression that the room is cluttered. Doors are often neglected in space utilization ideas, but adding hanging bars to your bathroom door can resolve the towel storage issue.

### Key Takeaways:

- Ladder shelving can be used to store towels on its deep lower levels and toiletries on its higher, smaller shelves.
- Use hooks and racks on doors to hang robes and towels and to store small toiletries.
- Instead of having a standalone mirror, install a mirrored medicine cabinet to serve multiple functions.

"Use a stacking kit to safely stack your side-by-side machines on top of another. Be sure to choose a stacking kit that will work with the type of washer and dryer in your home."

## Top Ways to Create an Eco Friendly Business



Creation of most things, including a business, involves a process of thought, word and deed. Generally, things can be organic or inorganic and located indoors or outdoors. Whether you start from scratch to work from home or from an existing location, every thing has a life cycle. So, an eco friendly business plan is usually built from a Reduce, Reuse and Recycle point of view.

### Key Takeaways:

- Design clear and easy guidelines to onboard management, employees and customers. Make it easy to talk the talk and walk the walk.
- Identify what your eco friendly business does to Reduce, Reuse and Recycle. Feature your environmental savvy in creative ways.
- Use technology to supplement sustainable growth. For example set up a complementary digital supply chain. Reach beyond local markets. Diversify by adding digital products to your tangible product line or vice versa.

"Think outside the box. A business can enjoy many kinds of benefits by using renewable energy. It reduces energy bills and demand for unsustainable grid sources. A backup power supply is handy during power outages and useful for sales and marketing as well." -Editor

## How to Improve Indoor Air Quality



The air most of us breathe carries industrial pollution. Particles and gases from human settlement include automotive exhaust, agricultural chemicals, smoke and gases from heating fuels and incinerators, and a large number of other toxic products. These are some of the easy to recognize conditions of the air available to most of us especially if you live in a city. It's the air we bring into our buildings to breathe, recirculate and expel.

NASA researchers have found that many common, easy-to-grow houseplants are very effective at reducing the most prevalent indoor air pollutants such as formaldehyde, benzene, mold and bacteria.

### Key Takeaways:

- I treat my plants like pets, especially the easy care ones known to clean the air like Boston Fern, Pothos and Dieffenbachia.
- Most homes heat and cool indoor air mechanically. Since smoke and gases from heating fuels produce toxic pollutants, the best choice for indoor HVAC systems are those that run on electricity.
- Contaminants tend to build up in air tight homes. In order to reduce contaminants, air to air heat exchangers can be used in conjunction with an air purifier adapted to treat incoming outside air.

"Managing indoor air can be tricky in a city where outdoor air can be more polluted."

## Solar Water Purifier Providing Access to Clean Water



Ensuring people have clean drinking water is often more challenging than one would expect. With climate change and environmental impact of human activity, scientists, researchers and engineers are hard pressed to not only come up with solutions for water purification, but the process of purification needs to be sustainable.

Solar purification systems are gaining in popularity and it meets both of these requirements. The technology tries to speed up the process of turning the water vapor with no longer contains contaminants into a liquid state.

### Key Takeaways:

- When water evaporates, contaminants such as bacteria and metals remain behind.
- There are multiple methods for solar water purification, including hydrogel and laser-etched aluminum panels.
- Water purification requires a lot of electricity, a problem solar methods help to resolve.

"Technologies like these are crucial because many areas throughout the world don't have access to clean water."

## Preparing For Clean-up After a Natural Disaster



Issues with forecasting for insurance claims may not take into account unexpected costs of cleaning up after a natural disaster. If the policy purchased does not cover unforeseen additional costs or you are underinsured when a claim is assessed, what can be done, who can do it and how will the extra costs be paid? Homeowners who are employed can usually get a loan. However, the Covid-19 pandemic is a natural disaster that produced unforeseen and far reaching side effects like:

1. quarantine, social distancing or closure of many service related businesses,
2. millions of unemployed persons who have no opportunity to work from home,
3. core industries, agriculture and supply chain disruptions slowing recovery,

### Key Takeaways:

- The world was not prepared for a pandemic, an increase in natural disasters, an economic collapse and increase of civil unrest all occurring at the same time.
- Nation states will do what they can to adapt, available resources will dwindle while recovery is underway and local communities must become more self reliant.
- Emerging organizations like Habitat for Health are becoming more vital in reconstructing local economic and ecological resources in sustainable ways.



## High Protein Foods To Lower Environmental Impacts of Beef



There are many protein sources available that will give you the same nutrition as beef but without the harmful environmental impact. For example, beyond meat is much healthier than beef as it is a plant based protein and tastes very similar to meat. Cows emit methane gas which does considerable damage to our environment via global warming.

Tilapia fillet is also a great choice of protein as it will keep you full and has roughly 23 grams of protein in just 1 fillet. If you don't like tilapia, salmon is another great fish choice that won't hurt the environment as much as beef.

### Key Takeaways:

- Veggie Burgers are all the rage right now because they taste just like real meat but are vegetarian and also protect the environment.
- Whenever a cow expels or passes gas, methane is released and this is 28 times more impactful than carbon dioxide when it comes to global warming.
- Since these cows are constantly being reproduced to supply food for humans, more and more methane is being released in the air.

"Animal protein foods also emit more carbon in general when compared to alternative sources. Beef is the greatest emitter according to [Our World In Data.](#)"

## The Importance of Individual Recycling



Without the existence of complex ecosystems, organic life, you included, would not be here now to read about it. Today recycling is an essential part of our lifestyle because waste continues to grow faster than our wishful intentions. So, to make a difference that matters to environment, our quality of life, and sustain healthy ecosystems to supply our needs and demands, it's time for everyone to recycle their own waste where possible.

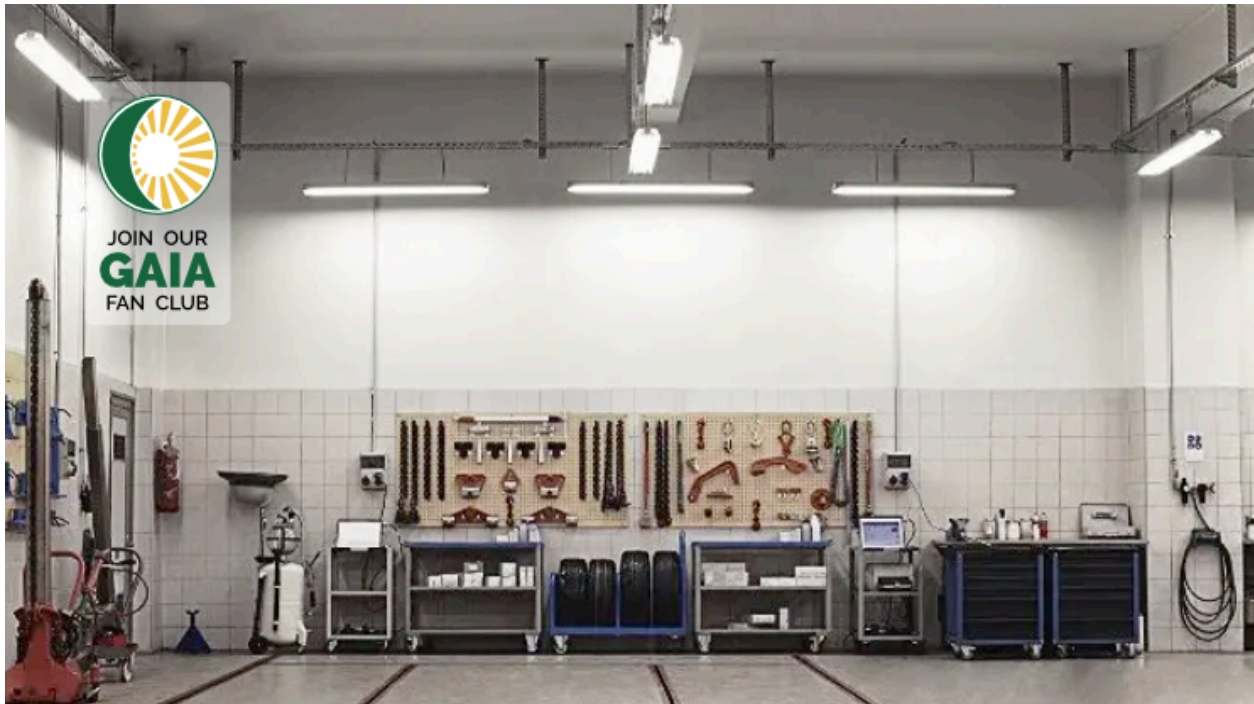
The more we recycle, the less waste winds up in commercial recycling plants, landfills and incineration plants. By reusing aluminum, paper, glass, plastics, and other materials, we can save production and energy costs, and reduce the negative impacts that extraction and processing of virgin materials has on the environment.

### Key Takeaways:

- Use your purchasing power to buy products packaged in containers like glass and paper that can be reused and have low impact at the end of the recycling chain.
- Take the containers you recycle and reuse them to package things like bulk foods in glass and dry goods in cardboard.
- Since you are buying what the package contains, shop for products without packages or products you can package with your recycled ones.

"According to a report issued by Stanford University, recycling one ton of office paper can conserve more than 4,000 Kwh of energy and save an estimated 17 trees. Recycling one ton of plastic can conserve more than 5,770 Kwh of energy and 16.3 gallons of oil."

## Why Install LED Shop Lights As Soon As Possible?



There are certain settings that require special lighting setups. Workshops are one of those places. They need bright lighting for performing precision tasks. Tasks which are also often potentially dangerous. But, they also need a hardy, durable light that's resistant to breaking.

Despite all of these complicated needs, LED shop lights are a very simple, yet effective, lighting solution. Shop lights are most commonly found in garages in workshops, hence the name shop lights, but are not limited to those facilities.

### Key Takeaways:

- Top reasons to replace old fixtures with LED lights are to provide a better, brighter light, save money and save the planet.
- You won't have to worry about mercury poisoning or glass shards when fluorescent fixtures break..
- LED Shop lights last longer, are environmentally friendlier, cost less to maintain and monthly energy costs are a lot lower.

"These are just a few of many benefits that LED lights present over other types of bulbs."

## Are Modular Container Homes Cost Effective?



Energy efficient homes use less energy than a traditional home. Modular versions typically cost less to build, are easier to customize and can be shipped to the building site. More specifically shipping container modules are built to withstand fire, flood and wind storms better than other building types.

Living space constructed using steel containers as a framework instead of a self contained unit, opens the door for creative design. Shipping containers were designed to be stacked on cargo ships and to withstand harsh environments. Container homes are easy to connect to off-grid or municipal services. Site servicing requirements like electrical, plumbing, and wastewater are similar to those for a standard build.

Container homes cost about the same as traditionally built homes when built to meet building codes. When it comes to structure and operating costs they are less expensive.

### Key Takeaways:

- An energy efficient home uses less energy than a traditional home, so living in one can drastically reduce your utility bills, carbon footprint and maintenance.
- Less waste. Building and assembling a modular home produces far less waste than building a site-built home.
- Stronger structures. Modular homes can be made structurally stronger than traditional site-built homes.

## DIY Curtain Ideas That Save Money and Save the Planet

16  
OCT 2020



New curtains, blinds and window coverings can get expensive when looking for ways to cover windows and lower energy costs. If you plan to cover those windows and are on a budget, you can try some of the following curtain hacks to reduce your rooms heat exchange at little to no cost.

Free insulation can usually be found at your closest furniture or appliance store. It comes in the form of large sheets of plastic bubble wrap that is discarded when new floor models are opened for display. For attic or basement windows that are only used for light transfer and you don't care what it looks like from the outside, the insulation can be applied with packaging tape to fasten it to the window or frame.

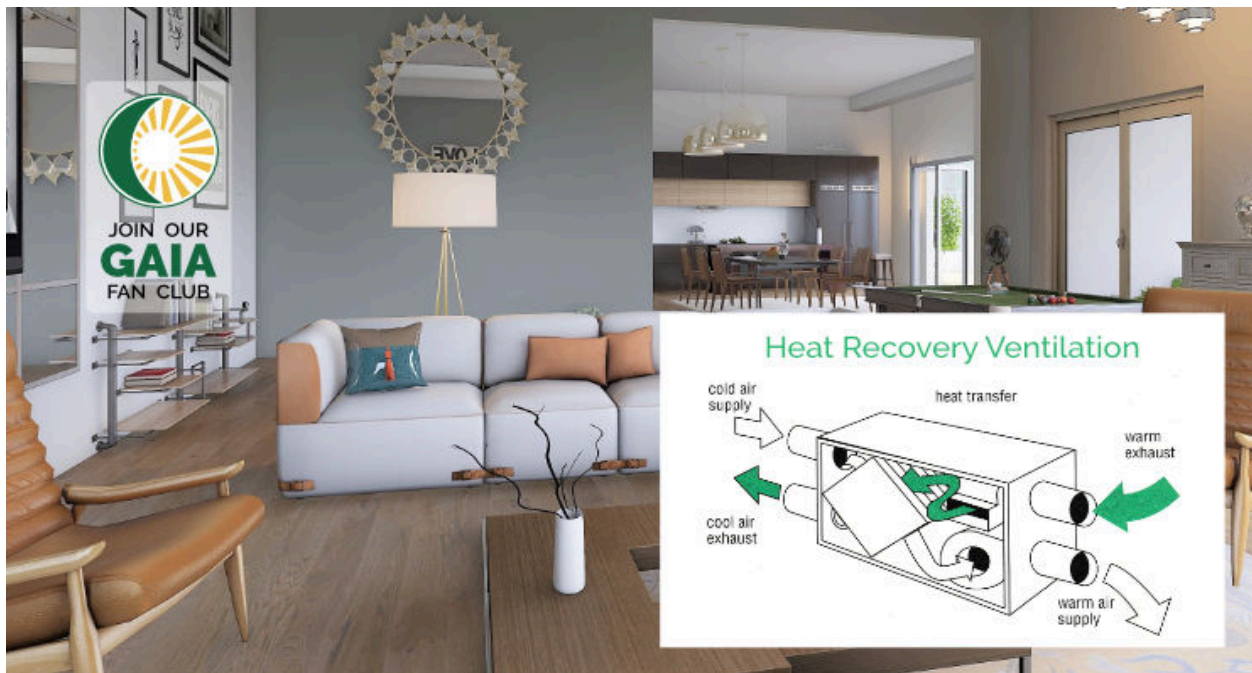
Instead of relining window facing fabric because it looks bad, yellowed or is damaged, consider recycling it. For example add another layer of cloth using bed sheets, old linens, or drop cloths. While your at it, why not add some bubble wrap between the sheets.

### Key Takeaways:

- Use bubble wrap from any packaging source to keep it out of the trash and reuse it to slow heat transfer between inside and outside environments.
- Recycle old linens, bed sheet, drop cloths you have or find in a thrift store.
- Save money save the planet in creative ways by reusing a old materials before they enter the waste stream because one person's trash is another's treasure.



## Heat Recovery Ventilation Benefits to Health and Energy Efficiency



Heat Recovery Ventilation (HRV), also known as mechanical ventilation heat recovery (MVHR), is an energy recovery ventilation system which works between two sources at different temperatures. Heat recovery is a method which is increasingly used to reduce the heating and cooling demands (thus energy costs and maintenance) of buildings.

Advances in home technology offers a number of important human health, energy savings and building maintenance benefits. A typical heat recovery system consists of a core unit, channels for fresh air and exhaust air, and blower fans. Building exhaust air is used as either a heat source or heat sink depending on the climate conditions, time of year and requirements of the building.

Careful sealing against air leakage is a key factor in design or upgrade to achieve a healthy home environment. Air intake can be filtered inline if the outside air source is polluted. Air exchange reduces pollutants like radon, formaldehyde, carbon monoxide and particulates found in household air are removed from the home.

### Key Takeaways:

- A regular exchange of household air can also reduce common pollutants, humidity and avoid excessive moisture problems like condensation on windows.
- HRVs extract heat from outgoing stale air and use it to preheat incoming fresh air.
- Heat recovery systems typically recover about 60–95% of the heat in exhaust air and have significantly improved the energy efficiency of buildings.



Recycling consumer electronics also known as E-waste or electronic waste, is something that owners have some control of when those electronics enter the waste stream. These are appliances such as mobile phones, computers, tvs, laptops, DVD players, washers, driers, stoves, fridges, etc.

Many of the newer high tech e-waste can contain chemicals such as Mercury, Lead, Beryllium, Phosphor, Cadmium, Polyvinyl chloride and other toxic compounds. After all, there are many dangers in disposing of end-of-life electronics if not done correctly. Electronics made with hazardous harmful substances and chemicals can affect the environment, wild life and the health of people.

When it comes time to replace your used electronic gadgets or appliances, it's a good idea to consider your options to find new homes for vintage working electronics. Local thrift and charity organizations do this as a business, hire people to help and in turn keeps money cycling through your local economy. The net result is to reduce demand for new products, extend the life of reusable consumer goods.

### Key Takeaways:

- Reduce demand for new electronics by reselling or donating your e-waste to a second hand store.
- Reuse by trading used equipment for something else you'd like to have or recycle.
- Recycling consumer electronics by finding the right waste stream helps remove or contain toxins because it also can reduce costs hazardous waste clean up.



Wind power, solar energy and hydropower are 3 of the best known sources of energy. Solar power is the most plentiful source of energy because it's more widely distributed than any other source and works as a great water heater accounting for a huge amount of global energy use.

The price of solar cells continues to fall and they are already the least expensive source of electricity for a lot of rural development. However, solar energy gets interrupted at night and by storms. There are infrastructure costs in all technology, but as technology evolves, costs tend to go down and efficiency gets better.

Wind power is an efficient source of energy that can be used to power individual households and larger communities. The down side is when wind stops blowing energy production stops. The up side includes technical advances in solid state wind energy generators. The EWICON, short for electrostatic wind energy converter is a working prototype at Delft University campus in Rotterdam.

The device creates electricity and has no moving parts. Since most of the maintenance costs in traditional wind turbines are due to constructing and replacing moving parts, from gearbox to blades, solid state wind production would significantly transform cost efficiency, waste and environmental impacts.



## Wind Power Solar Energy & Hydropower continued...

Hydropower is one of the most reliable forms of energy used all over the world. Energy from water flowing over waterfalls, rapid river diversions and dams across slower moving waterways pass through generators that convert kinetic energy into electrical energy. Hydropower projects are simple to construct, easy to scale up or down and relatively cost effective. The downside is location and volume of year round supply.

### Key Takeaways:

- Sources and variety of renewable energy production is growing and getting more efficient.
- Energy generators are becoming more affordable to buy as they shrink in size and grow in production capability.
- Small scale energy storage and management is already starting to replace older, hard to maintain, large scale, polluting or unsustainable sources from the past.



The EWICON, short for electrostatic wind energy converter is a working prototype at the Delft University campus in Rotterdam.

## Climate Change Impacts on Human Life Systems



Climate change impacts have massive implications on human economical and natural ecological life systems. The four classical elements typically refer to earth, water, air, and fire. Earth is a kin to Tectonics, like water to Hydrology, air to Climatology and fire to Volcanology.

So called "pure" drinking water delivered in plastic bottles, chemically treated "tap" water delivered by city systems, and stream, well, or catchment water are all packaged or delivered in technical ways. Together it's part of a human infrastructure or economic/eco system.

Carbon emissions are on the rise from industrial activity, transportation exhaust and forest fires. North and South polar ice melts are at a tipping point that continues to increase the frequency and destructive effects of storms at sea and on land. Check out recent news feeds on the [Blog home page](#).

What do you think might happen if a solar storm "inflicted serious damage to electronic systems on a global scale"? [According to a Wikipedia topic](#) "the economic cost to the United States would have been between US\$600 billion and \$2.6 trillion" in 2012 and "the recovery time from such a disaster would have been about four to ten years."

## Climate Change Impacts on Human Life Systems cont...

### Key Takeaways:

- Climate change impacts both natural and human life expectancy and is present in many types and scales of extreme storms including wind, water, fire, CME and diseases like Covid-19.
- Human economic/eco systems are only as good as it's weakest links like effective management from leaders all the way down to the front lines and emergency response capability.
- Life existed millions of years before humans emerged and will continue after humans leave the planet one way or another.



## Save Money Save the Planet by Following Home Energy Trends



Here are suggestions how to save money and save the planet. Let's start by following home energy trends published by U.S. Energy Information Administration.

The 2015 Residential Energy Consumption Survey found:

- 51% of total annual energy was used to heat and air condition homes
- 27% of energy use went to heating water, lighting, and refrigeration
- 22% of home energy got spent on appliances and consumer electronics

The survey concluded three-quarters of U.S. homes mostly use two or more energy sources. Mobile homes and homes in the South are most likely to use electricity only to meet all energy needs.

The survey also implied or stated typical U.S. households now use more air conditioning, appliances, and consumer electronics. Yet, average annual site energy use per home has declined.

## Save Money Save the Planet by Following Home Energy Trends

### The reasons for this decline include:

- Improvements in building insulation and materials
- Improved efficiencies of heating and cooling equipment, water heaters, refrigerators, lighting, and appliances
- People are migrating to warmer regions thus lowering total energy demand.
- The decline in average household energy consumption has offset the increase in homes.
- The results have flattened residential sector energy consumption.

### Key Takeaways:

- Small is beautiful when economical and ecological footprints are designed and built to be sustainable.
- Demand for more efficient heating and cooling equipment, water heaters, refrigerators, lighting, and appliance efficiency, can drive the trend for money savings.
- Permaculture designs have paved a way to exist inside and outside of urban and suburban locations.

"Electricity is used in almost all homes, and electricity accounted for 41% of household end-use energy consumption in 2019. Natural gas, which was used in 58% of homes in 2015, accounted for 44% of residential sector end-use energy consumption in 2019."



## Smart Control of Energy Saving Home Improvement

27  
NOV 2020



After slashing your energy bills, the next step is to enable smart control of energy saving home improvements. Smart control begins with Wi-Fi connections to switch, monitor and control your smart devices. Start with 2-3 reliable WiFi plugs and programmable power bars. Choose ones that work with Apple HomeKit, Siri, Alexa, Echo, Google Assistant, Nest Hub and SmartThings App Control.

Separate the HiFi and entertainment components into one or more groups on single circuits. Do the same for productivity components like computers, printers, routers and other related parts into another separate group and electric circuit. It's best to further separate HiFi entertainment and computer productivity components into separate rooms. The main reason for physical and electrical distancing is to reduce interference and time spent to fix problems.

Larger appliances like fridges, freezers, stoves, washers, dryers etc. usually have their own separate power circuits. If they are older or not smart enough to be controlled with Wi-Fi apps, they can still be switched on or off with a smart Wi-Fi plug.

The costs to install and manage home and remote networks are becoming more affordable. Physical separation of entertainment and productivity networks helps improve quality of service and reduces time spent to troubleshoot network issues.

## Smart Control of Energy Saving Home Improvement

### Key Takeaways:

- Smart control using local Wi-Fi connections and remote control of Wi-Fi contact points using Smartphone networks extends the reach of personal control.
- Physical separation of Hi-Fi, Wi-Fi, broadband, cable and wireless routing helps to reduce local signal interference issues.
- Remote and local control of your energy saving home improvement helps to save money, save the planet and improve quality of life.



## New Energy Supply Gets Personal as Combustion Technology Costs Increase



Let's face it, as new energy supply gets personal, combustion technology costs increase. Hidden in plain sight is the fact that sun, wind and water have one thing in common. They are all sources of free energy.

What's new is how micro technology makes ownership of natural energy supply available to individual people. Today we have solar panels that fit in backpacks, wind and water turbines that converts the sources' kinetic energy into electrical energy. So if you're on the lookout for ways to save money, you're not alone. After all, these days more than ever before, every dollar counts. Life is getting more expensive so why not cut expenses in any way you can.

For example, Tesla has popularized electric transportation. If your e-vehicle has regenerative braking, why not add a few micro wind turbines to help extend your vehicle's battery range?

On the other hand, water is a little more difficult to work with. But, I can see far enough into the future to imagine installing mini water turbines to abate leaves that may otherwise clog up home downspouts. While downspout turbines might generate power when it rains, grey water micro turbines could contribute to energy storage also.



## New Energy Supply Gets Personal as Combustion Technology Costs Increase

The downside of free energy sources are that the sun doesn't always shine, wind does not always blow, and water doesn't always flow at a usable rate all the time. However, it doesn't take much to build a co-generation power system over time until its paid for with savings earned by reducing payments to grid tied systems.

### Key Takeaways:

- Keep more green dollars in your pocket when your new energy supply gets personal by reducing payment for combustion technology.
- The fastest way to reduce hazardous effects of combustion technology is to own your own power supply while paying for it with savings from smaller payments to grid utilities.
- Think about green cogeneration systems that can help balance demand for power as the climate changes.



## Water Management in Uncertain Environments



Due to an increase of pollution entering wastewater, storm water, and public water management in uncertain environments is itself becoming a serious public health concern.

For example, ecological indicators include severe weather, global warming, sea level rise, extinction events and effects of pollution. Indicators of social collapse include political uncertainty, civil unrest, monetary stress, supply chain disruption and deadly ecological events like the COVID-19 pandemic.

Since January 5, 2016 Flint Michigan has been in a state of emergency. As of December 8, less than 500 service lines still need to be inspected. The city hopes to finish doing so by December 31, 2020. So why is the Flint Michigan 5th anniversary of a state in emergency just a few weeks away and still no reliable end is in sight?

It's obvious that partisans unwilling to help are not part of the solution. Instead, they end up as yet another burden on Governments who do act but are limited by dwindling or compromised resources.

Catch-22 mismanagement continues to produce inevitable fiscal limitations due to events like pandemics, natural disasters, climate change, economic stressors and deviant behaviour. Human social contracts are failing under current leadership. There's just not enough resources trickling down through the catch-22 net to continue on our present course and still survive.

## Water Management in Uncertain Environments

Over 97% of all water on Earth is salty. Under 3% is fresh, most of which is locked away in the ice caps. The atmosphere, rivers, lakes and underground stores hold less than 1%. The water cycle driven by the sun, lifts purified water from the land and oceans, to fall again as rain or snow.

The absolute minimum a person needs for domestic use is 5 litres a day, with a more realistic figure around 20 litres, a developed world citizen consumes well over 100.

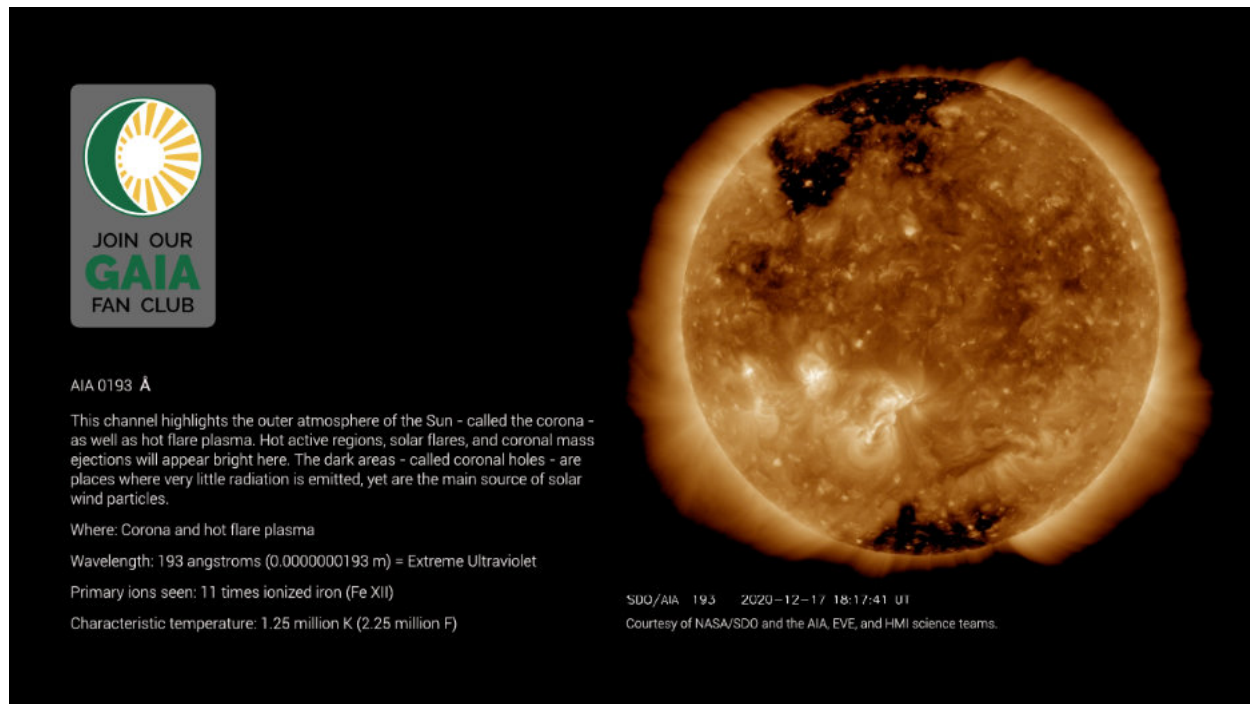
### Key Takeaways:

- Always VOTE for a better way to repair, avoid Catch-22 mismanagement and to discontinue inevitable deviant behavior and fiscal limitations.
- Pay attention to early indicators of pollution entering wastewater, stormwater, and public water systems.
- Hope for the best, plan for the worst, and check our recommendations for individual or family water management in uncertain environments.



## Effects of Space Weather on Human Economic Activity

18  
DEC 2020



In the 20th century, interest in effects of space weather on human activity grew out of the space program. Military and commercial ventures came to depend on satellites until solar events interfered with operation to a great extent.

The term space weather became popular in the 1950s and evolved into common usage by the 1990s. Here's why:

- Communications satellites grew fast to keep up with high growth internet and global ecommerce.
- Weather satellite and mapping systems also developed quickly to provide information about terrestrial weather.
- Signals from Global Positioning System (GPS) were designed for a wide variety of applications including how Coronal Mass Ejections (CMEs) affect satellite operation.
- Space weather radiation can cause damaging surges in long distance transmission lines and expose passengers and crew of aircraft travel to radiation.



## Effects of Space Weather on Human Economic Activity

### Key Takeaways:

- Financial and security benefits of satellite communications like cell phone, emergency response, online banking, credit cards, weather and GPS satellite technology to name a few, have grown to become essential services.
- Political, military and commercial space satellite and related technology is vulnerable to Carrington Event scale geomagnetic storms.
- Carrington events have the potential to disable enough satellite services to ask the question- What can you realistically do today to prepare for uncertain hardships that may come tomorrow if:
  - Cell phones don't work
  - 911 calls don't connect
  - Electronic bank services are unavailable
  - Earthquake, flood, hurricane, tornado or other weather event affects you
  - Food supply chain gets disrupted

### 2020 Summary of Top Events

1. Covid 19 virus delivered the most compelling existential messages to human beings in more than a century. Economic recovery, supply chain, health care and civil service management and mismanagement remains uncertain.
2. Climate changes produced stronger, more frequent, storms and affected more people than ever before.
3. Geological events like earth quakes, volcanic activity, and tsunamis became more noticeable this year. For example a rise in earth ground temperature along the San Andreas fault may have contributed to California wild fires and in the Middle East earth quakes played a part in the Mediterranean tsunami of 2020.
4. Solar events like coronal ejections can make space weather that may disrupt cell phones, weather satellites, asteroid tracking, GPS mapping and surge damage to long distance transmission lines.
5. Video News links covering climate events, geological events and solar weather forecasts have been added to the blog home page.



## How Important Bees Are to Economic Recovery in 2021

1  
JAN 2021



Habitat for Health started up January 2020 and not in my wildest imagination did I think of writing about how important bees are to economic recovery in 2021. Coronavirus (COVID-19) had not yet been recognized as cause for a pandemic. But by April economic impacts began to take effect. And by December, Habitat for Health had managed to publish a weekly blog, start up the GAIA Fan Club, and also made some plans to help work on recovery.

### Key Takeaways:

- The GAIA Fan Club Blog will remain user supported with free subscriptions or until economic recovery indicates demand for time to focus on higher value projects.
- The Apiary Project is designed to generate much larger scale of ecological and economical recovery.
- From January 2021 forward, Home member activities and GAIA Fan Club Ezine will be available to members.

"Once you start to know why bees are disappearing, how much does it take to become part of the solution?"

## How GAIA Fan Club Works

---

### About GAIA Fan Club

---

The GAIA Fan Club (GFC) is a subscription based membership organization. The GFC Ezine reports on news, activities, and projects of interest at Habitat for Health.

- Habitat for Health (H4H) is a Web based research, publishing and consulting company.
- The H4H Home branch manages the organization.
- The H4H Blog manages research and publishing.
- The H4H.biz site manages the re:Search Project.
- LMS MEDIA manages technical, creative and Learning Management Systems (LMS).

Habitat for Health operates a pay-it-forward system of credits and exchange of value. H4H Credits are earned by volunteering to work on member projects. Our credit exchange rates are based on our assessment of most modern capital types.

---

### Why GAIA First

---

Severe climate change and human responses indicate imminent ecological and social collapse. Without a sustainable ecosystem that favours human life, the longer we wait, the fewer choices we get to survive.

For example, ecological indicators include severe weather, global warming, sea level rise, extinction events and effects of pollution.

Indicators of social collapse include political uncertainty, civil unrest, monetary stress, supply chain disruption and deadly ecological events like the Texas snow storm and COVID-19.

In November 2019 a pandemic was a historical footnote. Months later, by the end of May 2020, the United States had reported more than 100,000 deaths from Coronavirus disease. While the do or die clock ticks on, how many choices will be left?

It's obvious that partisans unwilling to help are not part of the solution. Instead, they end up as yet another burden on Governments who do act but are limited by dwindling resources. Together it makes for Catch-22 mismanagement scenarios. Tick tock.

Today, drastic corrective action must be taken to avoid the writing on the wall. Otherwise do or die choices are done and finished - R.I.P.

**Catch-22** mismanagement continues to produce inevitable fiscal limitations due to events like pandemics, natural disasters, climate change, economic stressors and deviant behaviour. Human social contracts are failing under current leadership. There's just not enough resources trickling down through the catch-22 net to continue on our present course and still survive.

"The GAIA First® Economics hypothesis is designed to be tested and communicated ad infinitum using Habitat for Health research, publishing and consulting platform."

Brian Hack, **PERMACULTURE** Design Consultant.



---

## GAIA First® Economics

---

When GAIA's ecological and human economical systems both fail, by-pass action is needed. As top down resources fail, Habitat for Health is positioned to incubate bottom up solutions to continue abatement and recovery.

GAIA First® is an economic theory based on empirical evidence that GAIA does not accept cash or any human economic creations. GAIA will accept stewardship in exchange for human use of natural resources. GAIA's only conditions are that we consume natural resources in sustainable ways and recycle our toxic waste.

Habitat for Health (H4H) is built to support and promote Ecological and Economical (Eco-Eco) relations. We believe everyone's time is valuable and GAIA's natural resources are too.

Habitat for Health eco-eco relations start here. Members in the GAIA Fan Club get access to our projects. H4H helps fund projects with Member dues, credits, resources and other recognitions.

## GAIA Benefits First From:

- Reduction in demand for more resource extraction and waste storage from increases in 3R member initiatives.
- A percentage of subscription revenue is paid forward to fund projects that GAIA benefits from 1st.
- The increase in stewardship arising from projects compounds the GAIA First effect on resource 3Rs.
- As GAIA First contracts are fulfilled Stewards earn recurring payments to make sure the loop continues.

---

## GAIA First® Pay It Forward Method

---

Subscription to the Blog is Free. Subscribers can:

- unlock protected content on the blog,
- comment on blog posts,
- GAIA Fan Club Ezine updates, and
- Volunteer to Start From Scratch

Habitat for Health Start From Scratch project is a private Pay It Forward initiative for the public good, focusing on quality of life for both humans and the planet.

Membership to the GAIA Fan Club is paid. Members get access to Habitat for Health resources, project tasks and gigs.

Members earn credits by volunteering for on-the-job-training (OJT). Credits may be redeemed in many ways using H4H Pay It Forward Methods.

## How GAIA Fan Club Projects Work:

1. Volunteer to learn and earn credits.
2. Follow instructions to research a community.
3. Work on Project tasks or gigs to earn credits.
4. Redeem credits for food, shelter, or new projects.
5. Join an affiliate or contractor project.
6. Grow your business, skills or project.

It's straight forward, very easy, and most things can get done from home. Credits and recurring commissions can add up fast in GAIA Fan Club.



# GAIA Fan Club

## The Apiary Project

The Apiary Project seeks to hire specialists like accountants, lawyers, Real Estate and other skilled people. The Apiary Project also seeks volunteers to perform tasks that require different types of skills like odd jobs, gardening, and other easy to do tasks.

**GAIA gives 24 hours of time to all living things each day.** The lowest common denominator in eco-eco relations is time. Humans own their time and donate or lease it out to the highest bidder each day. Many people also have spare time.

**Habitat for Health is formed to help anyone that seeks it.** Today climate induced disasters, collapsing economic indicators, and the COVID-19 pandemic are existential realities. In order to help equalize access to repair eco-eco resources, the GAIA Fan Club was formed.

**GAIA First® Economics and Pay It Forward methods** were created to improve qualities of life for both humans and the planet.

Another purpose of the GAIA Fan Club is to engage the power of the individual to shape the course of history because it appears to be one of the most underdeveloped of all natural resources.

In economics it also appears to be a way to enable individual choice of sustainable eco-eco relations like food, shelter, and habitats for all life on a global scale no matter what socio-economic condition an individual may be experiencing. <sup>[1]</sup>

### Eco-Eco Features of GFC Membership and Exchange Values

- Applicants agree to Terms of Service. Every Member pays dues.
- All Members can choose what projects to work on or fund.
- All projects are paid forward with time and cash donated.
- All time donations are measured in 1 hour credit increments.
- Value of credits are negotiable & start at local minimum wage.
- All credits redeemed for cash are paid via an escrow account.
- A % of H4H income is paid into the escrow account monthly.

<sup>[1]</sup> [Working Toward Sustainable Development, Brian Hack.](#)



Habitat for Health  
Save Money Save The Planet

#### Subscriber Upgrade

- ☞ Request tasks to earn credits.
- ☞ **Learn, earn, and save credits.**
- ☞ Become a Member, earn more.
- ☞ **Build your own branch office.**

**Start From Scratch**



Habitat for Health  
Save Money Save The Planet

#### Member Onboarding

- ☞ Learn about admin operations.
- ☞ **Production operations.**
- ☞ Marketing & sales operations.
- ☞ **Learn, work and earn online.**

**Become a Member**



Habitat for Health  
Save Money Save The Planet

#### Donate to a Project

- ☞ Donate money for credits.
- ☞ **Donate time for credits.**
- ☞ Donate resources for credits.
- ☞ **Donate for tax receipts.**

**Become a Donor**



Habitat for Health  
Save Money Save The Planet

#### Sponsor a Project

- ☞ Sponsor money for credits.
- ☞ **Sponsor time for credits.**
- ☞ Sponsor resources for credits.
- ☞ **Sponsor for tax receipts.**

**Become a Sponsor**





JOIN OUR  
**GAIA**  
FAN CLUB